

Facility Name: **PCS Nitrogen Fertilizer L.P. – Augusta Plant**  
City: Augusta  
County: Richmond  
AIRS #: 04-13-245-00002

Application #: TV-40994  
Date Application Received: March 3, 2017  
Permit No: 2873-245-0002-V-04-0

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## Introduction

This narrative is being provided to assist the reader in understanding the content of referenced operating permit. Complex issues and unusual items are explained here in simpler terms and/or greater detail than is sometimes possible in the actual permit. The permit is being issued pursuant to: (1) Georgia Air Quality Act, O.C.G.A § 12-9-1, et seq. and (2) Georgia Rules for Air Quality Control, Chapter 391-3-1, and (3) Title V of the Clean Air Act. Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control incorporates requirements of Part 70 of Title 40 of the Code of Federal Regulations promulgated pursuant to the Federal Clean Air Act. The narrative is intended as an adjunct for the reviewer and to provide information only. It has no legal standing. Any revisions made to the permit in response to comments received during the public participation and EPA review process will be described in an addendum to this narrative.

**I. Facility Description****A. Facility Identification****1. Facility Name**

PCS Nitrogen Fertilizer L.P. – Augusta Plant

**2. Parent/Holding Company Name**

PotashCorp

**3. Previous and/or Other Name(s)**

This facility was previously known as Columbia Nitrogen Fertilizer, Acadian Fertilizer L.P., Arcadian Corporation, and PCS Nitrogen Fertilizer Inc.

**4. Facility Location**

The facility is located at 1460 Columbia Nitrogen Road, Augusta, Georgia 30901, Richmond County.

**5. Attainment, Non-attainment Area Location, or Contributing Area**

The facility is located in an attainment area.

**B. Site Determination**

PCS Nitrogen Fertilizer L.P. – Augusta Plant (PCS) has requested to include emission points from one adjacent facility, Air Carbonics Industries (ACI), in this Title V Permit. Both the PCS and ACI facilities are located on the same property and have common ownership. PCS owns fifty percent of ACI. ACI is relatively small and most of the processes at the facility are insignificant and have low emissions. ACI purifies CO<sub>2</sub> provided by the PCS Ammonia Plant. Therefore, both of these facilities would be considered one Title V site under 40 CFR Part 70, because each source is contiguous and is under common control of one or more persons.

Grace Industries is also located on the common property with PCS and ACI. Grace Industries (AFS Number 245-00154) is a true minor source that is operating under Air Quality Permit No. 2819-121-12485, which was issued on July 7, 1995. This facility uses a concentrated NO<sub>x</sub> gas stream from the PCS C002 Nitric Acid Plant to form calcium nitrite. However, because PCS does not have common ownership with this company, this facility would not be considered part of this Title V under 40 CFR Part 70.

## C. Existing Permits

Table 1 below lists all current Title V permits, all amendments, 502(b)(10) changes, and off-permit changes, issued to the facility, based on a comparative review of form A.6, Current Permits, of the Title V application and the "Permit" file(s) on the facility found in the Air Branch office.

Table 1: List of Current Permits, Amendments, and Off-Permit Changes

Permit Number and/or Off-Permit Change	Date of Issuance/Effectiveness	Purpose of Issuance
2873-245-0002-V-03-0	9/11/2012	Renewal Title V permit issued.
2873-245-0002-V-03-1	6/13/2013	Correction of Condition 6.1.7.c.iii for the Urea Prill moisture content excursion value
Off Permit Change	6/25/2013	Replacement of the Urea Synthesis Plant High Pressure Scrubber
2873-245-0002-V-03-2	11/7/2013	Modification of the C-001 AN Plant – neutralizer scrubber excursion values
Off Permit Change	12/20/2013	Replacement of converter cone and elbow on C-002 Nitric Acid Plant
Off Permit Change	12/20/2013	Modifications to the Nitric Acid Concentrator operations
Off Permit Change	12/20/2013	Modifications to the Urea solutions loading operations
Off Permit Change	1/16/2014	Replacement of the Ammonia Plant emergency flare
Off Permit Change	7/3/2014	Replacement of the C-001 Nitric Acid Plant Ammonia Booster Compressor
2873-245-0002-V-03-3	11/26/2014	Modification of the C002 AN Plant – amperage range in Condition 6.1.7.c.xiv(D)
Off Permit Change	12/12/2014	Replacement of the E6707 heat exchanger.
Off Permit Change	5/8/2015	Replacement of bottom section of absorber column and the entire bleaching section
Off Permit Change	5/18/2015	Addition of three (3) pumps at storage tanks; addition of a blend station; and addition of piping, controls and instrumentation for three (3) new rail loading spots.
2873-245-0002-V-03-4	2/11/2016	Designation of Synloop Startup Heater as Limited Use pursuant to 40 CFR 63, Subpart DDDDD.
2873-245-0002-V-03-5	5/5/2016	Repairs and Ammonia Plant equipment replacement
Off Permit Change	7/27/2016	Replacement of the C205 Bleaching Column in the C-001 Nitric Acid Plant
Off Permit Change	8/1/2016	Replacement of the C-002 Nitric Acid Plant gas turbine heat exchanger
2873-245-0002-V-03-6	2/13/18	Replaced Particulate Matter (PM) limit of 0.29 lbs/ton urea produced and annual throughput of 474,000 tons urea with an annual PM limit of 68.7 tpy.
2873-245-0002-V-03-7	TBD	Addition of a medium pressure section to the urea synthesis plant, increasing Urea Plant production from 1,800 tons per day to 2,250 tons per day.

## D. Process Description

### 1. SIC Codes(s)

2873 – Nitrogenous Fertilizers

2813 – Industrial Gasses for anhydrous ammonia and CO<sub>2</sub> manufacture.

The SIC Code(s) identified above were assigned by EPD's Air Protection Branch for purposes pursuant to the Georgia Air Quality Act and related administrative purposes only and are not intended to be used for any other purpose. Assignment of SIC Codes by EPD's Air Protection Branch for these purposes does not prohibit the facility from using these or different SIC Codes for other regulatory and non-regulatory purposes.

Should the reference(s) to SIC Code(s) in any narratives or narrative addendum previously issued for the Title V permit for this facility conflict with the revised language herein, the language herein shall control; provided, however, language in previously issued narratives that does not expressly reference SIC Code(s) shall not be affected.

### 2. Description of Product(s)

This facility produces anhydrous ammonia, nitric acid, ammonium nitrate, urea, urea and ammonium nitrate solutions, carbon dioxide, and urea pastilles.

### 3. Overall Facility Process Description

PCS produces anhydrous ammonia, nitric acid, ammonium nitrate (AN), urea, urea and AN solutions, CO<sub>2</sub>, and urea pastilles. Following is a briefly process description for each product.

**Anhydrous ammonia** – Natural gas is reformed and mixed with atmospheric air to form ammonium gas in a series of reaction steps.

**Nitric Acid** – Ammonia is combusted to form NO<sub>x</sub> gas. The NO<sub>x</sub> gas is absorbed in an absorption column to form nitric acid. There are two nitric acid plants at the facility: C-001 Nitric Acid Plant and C-002 Nitric Acid Plant. The C-001 Nitric Acid Plant has an SCR to control NO<sub>x</sub> emissions to the atmosphere. The C-002 Nitric Acid Plant has an NSCR to control NO<sub>x</sub> emissions to the atmosphere.

**Ammonium nitrate** – Ammonia and nitric acid are reacted in the first stage and second stage neutralizers to form AN liquid. Part of the AN liquid is used to make fertilizer solutions, part is direct sales, and part is used in the prill tower to make AN prills, a solid product. The AN prills are further processed in the pre-dryer and the cooler. There are two AN plants: C-001 AN Plant and C-002 AN Plant. Each plant has a scrubber to control particulate matter on the first stage neutralizer, the pre-dryer, the dryer, and the cooler.

**Urea** – Carbon dioxide, a by-product from the ammonia process, is combined with ammonia to form urea. The liquid urea is used to make fertilizer solutions, urea solutions, urea prills, and urea pastilles.

**Urea and ammonium nitrate solutions** – Ammonium nitrate, urea, and water are blended to form fertilizer solutions or made into pure solutions of various percentages for direct sales.

**Carbon Dioxide** – CO<sub>2</sub> from the ammonia plant's solution regenerator exhaust is purified and compressed to form liquified CO<sub>2</sub>.

**Urea pastilles** – Liquid urea is taken from the urea plant before formaldehyde is added. It is sent to a dryer and rotoformers, where urea pastilles are formed. The finished pastille is stored in one of three dome storage units before being shipped offsite.

#### 4. Overall Process Flow Diagram

The facility provided a process flow diagram in their renewal Title V permit application.

### E. Regulatory Status

#### 1. PSD/NSR

PCS is a major source under PSD regulations. The facility has taken several limits to avoid PSD review.

- The sulfur content of fuel oil burned in Boiler H 6531 and Boiler H 6532 was limited to 0.15 percent sulfur by weight. The combustion of fuel oil in Boiler H 6531 and Boiler H 6532 was removed at the Applicant's request, therefore the sulfur content limit was deleted.
- Boiler H 6532 is permitted to burn only natural gas. The combustion of fuel oil in Boiler H 6532 was removed at the Applicant's request.
- Boiler H 6532 is limited to 1,591 million cubic feet of natural gas usage per 12-month period.
- Boiler H 6532 is limited to specific emission rates for PM/PM<sub>10</sub>, NO<sub>x</sub>, and CO while firing natural gas.
- Boiler H 6532 was limited to 1,849,020 gallons of fuel oil usage per 12-month period. The combustion of fuel oil in Boiler H 6532 was removed at the Applicant's request.
- Boiler H 6532 was limited to specific emission rates for PM/PM<sub>10</sub>, NO<sub>x</sub>, and CO while firing fuel oil. The combustion of fuel oil in Boiler H6532 was removed at the Applicant's request therefore the PM/PM<sub>10</sub>, NO<sub>x</sub>, and CO were deleted. The specific emission rates applicable to natural gas combustion were retained.
- Emissions of NO<sub>x</sub> from Boiler H 6532 are limited to less than 40 tpy.
- Emissions of VOC from the Ammonia Plant are limited to 163 tons per 12-month period.
- Emissions of CO from the Ammonia Plant are limited to 166 tons per 12-month period.
- The facility must maintain a minimum steam injection rate for the Ammonia Plant Gas Turbine to control NO<sub>x</sub> emissions.
- Emissions of NO<sub>x</sub> from the Ammonia Plant Gas Turbine are limited to 74.8 ppm at 15 percent oxygen.
- Emissions of NO<sub>x</sub> from the Ammonia Plant Gas Turbine are limited to 54 ppm at 15 percent oxygen after modifications scheduled to occur in September 2012.
- The C002 Urea Plant Prill Tower is limited to 474,000 tons of prill production per 12-month period.

- Emissions of PM from the C002 Urea Plant Prill Tower are limited to 68.7 tpy. This limit replaces the former limit of 0.29 pounds per ton of urea produced.

The facility has taken the following limits as a result of a PSD BACT review.

- Emissions of NO<sub>x</sub> from the C002 Nitric Acid Plant are limited to 3.0 pounds per ton of 100% nitric acid produced.
- Opacity of emissions from the C002 Nitric Acid Plant is limited to less than 10%.
- Emissions of NO<sub>x</sub> from the C002 Nitric Acid Plant are limited to 507 tons per 12-month period.
- Emissions of CO from the C002 Nitric Acid Plant are limited to 30.0 pounds per ton of 100% nitric acid produced.

## 2. Title V Major Source Status by Pollutant

**Table 2: Title V Major Source Status**

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	✓	✓		
PM <sub>10</sub>	✓	✓		
SO <sub>2</sub>	✓			✓
VOC	✓	✓		
NO <sub>x</sub>	✓	✓		
CO	✓	✓		
TRS				
H <sub>2</sub> S				
Individual HAP	✓	✓		
Total HAPs	✓	✓		

## 3. MACT Standards

The C002 Urea Plant is subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing.

Existing boilers H 6531 (Source Code AB01), H 6532 (Source Code AB03), and H 6151 (Source Code AB04) are subject to 40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.

## 4. Program Applicability (AIRS Program Codes)

Program Code	Applicable (y/n)
Program Code 6 - PSD	Yes
Program Code 8 – Part 61 NESHAP	No
Program Code 9 - NSPS	Yes
Program Code M – Part 63 NESHAP	Yes
Program Code V – Title V	Yes

## **Regulatory Analysis**

### **II. Facility Wide Requirements**

#### **A. Emission and Operating Caps:**

None applicable.

#### **B. Applicable Rules and Regulations**

None applicable.

#### **C. Compliance Status**

The facility has indicated compliance with all applicable rules and regulations.

#### **D. Permit Conditions**

None applicable.

### III. Regulated Equipment Requirements

#### A. Equipment List for the Process

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
AB01	Boiler H 6531	40 CFR 63 Subpart DDDDD 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	3.2.1, 3.3.1, 3.3.2, 3.3.4 through 3.3.6, 3.4.1, 6.1.7, 6.2.24 through 6.2.28*	None	None
AB03	Boiler H 6532	40 CFR 63 Subpart DDDDD 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	3.2.2 through 3.2.5, 3.3.1, 3.3.2, 3.3.4 through 3.3.6, 3.4.1, 6.1.7, 6.2.1 through 6.2.2, 6.2.24 through 6.2.26*	None	None
<b>Ammonia Plant</b>					
GT01	Ammonia Plant Gas Turbine	40 CFR 60 Subpart GG 40 CFR 64	3.2.6, 3.2.7, 3.2.8, 3.3.7 through 3.3.9, 3.5.1, 5.2.2, 5.2.6, 5.2.7, 6.1.7, 6.2.3 through 6.2.8, 6.2.27, 6.2.28*	ST1	Steam Injection System
AM01	Ammonia Plant Primary Reformer Furnace	391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	3.2.6, 3.4.2, 3.4.3, 3.4.4, 6.1.7, 6.2.6 through 6.2.8, 6.2.27, 6.2.28*	None	None
AM04	Ammonia Plant Solution Regenerator Vent	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.2.6, 3.4.5, 3.4.6, 4.2.1, 4.2.2, 6.1.7, 6.2.7, 6.2.8, 6.2.27, 6.2.28*	None	None
<b>ACI Plant</b>					
ACI1	ACI Compressor Skid Vent	None	3.2.6, 4.2.1, 4.2.2, 6.1.7, 6.2.7, 6.2.8*	None	None
ACI3	ACI Water Separators	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.2.6, 3.4.5, 3.4.6, 4.2.1, 4.2.2, 6.1.7, 6.2.7, 6.2.8*	None	None
<b>Urea Plant</b>					
U201	C002 Urea Plant Prill Tower	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart FFFF <sup>G2</sup>	3.2.9, 3.2.10, 3.3.10, 3.3.11, 3.4.5, 3.4.6, 4.2.1, 4.2.2, 4.2.3, 4.2.4, 5.2.2, 5.2.3, 6.1.7, 6.2.9, 6.2.10, 6.2.11, 6.2.12, 6.2.15, 6.2.16*	None	None
U202	C002 Urea Plant Central Vent Stack (ST-6751)	40 CFR 63 Subpart FFFF <sup>G2</sup>	3.3.10, 3.3.11, 4.2.4, 6.2.15, 6.2.16*	None	None
U203	C002 Urea Plant 7103 Process Vent	40 CFR 63 Subpart FFFF <sup>G2</sup>	3.3.10, 3.3.11, 4.2.4, 4.2.11, 6.2.15, 6.2.16*	None	None
U209	C002 Urea Plant Medium Pressure Absorber	40 CFR 63 Subpart FFFF <sup>G2</sup>	3.3.10, 3.3.11, 4.2.4, 4.2.11, 6.2.15, 6.2.16*	None	None
FUG	C002 Urea Plant LDAR Valves, pumps, connectors, agitators, pressure relief devices, compressors, sampling connection systems, open-ended valves or lines, and closed vent systems and control devices	40 CFR 63 Subpart FFFF 40 CFR 65 Subpart F	3.3.10, 3.3.11, 3.3.13 through 3.3.28, 4.2.5, 4.2.6, 6.2.15 through 6.2.21*	None	None
FUG	C002 Urea Plant Wastewater Stream(s)	40 CFR 63 Subpart FFFF <sup>G2</sup>	3.3.10, 3.3.11, 3.3.12, 6.2.14, 6.2.15, 6.2.16*	None	None
U108	Formaldehyde Tank	40 CFR 63 Subpart FFFF <sup>G2</sup>	3.3.10, 3.3.11, 6.2.15, 6.2.16*	None	None
P01	Urea Pastille Plant Crystallization	None	None*	None	None

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
P02	Urea Pastille Plant Dryer	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 64	3.4.5, 3.4.6, 5.2.3, 5.2.6, 5.2.8, 6.1.7*	F1	Scrubber
P03	Urea Pastille Plant Rotoformers	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 64	3.4.5, 3.4.6, 5.2.3, 5.2.6, 5.2.8, 6.1.7, 6.2.13*	F1	Scrubber
P04	Urea Pastille Plant Dome Warehouse 1	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.5, 3.4.6, 5.2.3, 5.2.4, 6.1.7*	F2	Baghouse
<b>Nitric Acid Plant</b>					
N101	C001 Nitric Acid Plant	40 CFR 60 Subpart G 40 CFR 64	3.3.29, 3.3.30, 4.2.7, 4.2.8, 5.2.1, 5.2.2, 5.2.5, 5.2.6, 5.2.9, 6.1.7*	C101	SCR System
N201	C002 Nitric Acid Plant	40 CFR 52.21 40 CFR 60 Subpart G 40 CFR 64	3.2.11 through 3.2.13, 3.3.29, 3.3.30, 4.2.7, 4.2.8, 5.2.1, 5.2.2, 5.2.5, 5.2.6, 5.2.9, 6.1.7, 6.2.22, 6.2.23*	AP07	NSCR System
NST1 through NST8	Nitric Acid Tanks	391-3-1-.02(2)(a)1	3.2.14, 5.2.3, 6.1.7*	AVS1	Acid Vent Scrubber System
<b>Ammonium Nitrate Plant</b>					
AN01	C001 AN Plant – Neutralizer	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) <sup>†</sup> 40 CFR 64	3.4.5, 3.4.6, 5.2.3, 5.2.6, 5.2.10, 6.1.7*	VS01	Scrubber
A105	C001 AN Plant – Prill Tower	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) <sup>†</sup>	3.4.5, 3.4.6, 5.2.2, 5.2.3, 6.1.7*	None	None
A103	C001 AN Plant – Prill Dryer	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) <sup>†</sup> 40 CFR 64	3.4.5, 3.4.6, 5.2.6, 5.2.11*	AP08	Cyclone
A104	C001 AN Plant – Prill Cooler	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) <sup>†</sup> 40 CFR 64	3.4.5, 3.4.6, 5.2.6, 5.2.11*	AP09	Cyclone
AN02	C002 AN Plant – Neutralizer	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) <sup>‡</sup> 40 CFR 64	3.4.5, 3.4.6, 5.2.3, 5.2.6, 5.2.12, 6.1.7*	VS02	Scrubber
A201	C002 AN Plant – Prill Tower	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) <sup>‡</sup> 40 CFR 64	3.4.5, 3.4.6, 4.2.9, 4.2.10, 5.2.2, 5.2.3, 5.2.6, 5.2.13, 6.1.7*	AP02	Scrubber
A204	C002 AN Plant – Prill Dryer	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) <sup>‡</sup> 40 CFR 64	3.4.5, 3.4.6, 4.2.9, 4.2.10, 5.2.3, 5.2.6, 5.2.14, 6.1.7*	AP05	Scrubber
A202	C002 AN Plant – Prill Cooler	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) <sup>‡</sup> 40 CFR 64	3.4.5, 3.4.6, 4.2.9, 4.2.10, 5.2.3, 5.2.6, 5.2.15, 6.1.7*	AP03	Scrubber
AB04	Synloop Startup Heater (H-6151)	40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	3.3.1, 3.3.3 through 3.3.6, 6.2.24, 6.2.25, 6.2.26*	None	None

\* 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.

<sup>†</sup> For determination of compliance with 391-3-1-.02(2)(e), the following source codes are to be grouped: AN01, A105, A103, and A104.

<sup>‡</sup> For determination of compliance with 391-3-1-.02(2)(e), the following source codes are to be grouped: AN02, A201, A204 (including bypass), and A202.

<sup>G2</sup> Group 2 source under 40 CFR 63 Subpart FFFF.

## B. Equipment & Rule Applicability

### *Applicability Summary*

The following applicability information includes existing equipment and equipment added or modified in subsequent amendments.

Boiler H 6531 (Source Code AB01) is rated at 191 MMBtu/hr and was constructed in 1977. The unit was permitted to burn natural gas and no. 2 fuel oil however; fuel oil combustion was removed at the Applicant's request (Application 40994). The unit is not subject to 40 CFR 60 Subpart Db because it was constructed prior to the applicability date. The unit is subject to the following rules, regulations and limits:

- Georgia Rule 391-3-1-.02(2)(d) – Fuel-burning Equipment: The emission of PM is limited based on the heat input to the boiler. The opacity of emissions is limited to less than 20 percent, except for one six minute period per hour of not more than 27 percent.
- Georgia Rule 391-3-1-.02(2)(g) – Sulfur Dioxide: Boiler H 6531 (Source Code AB01) is limited to natural gas combustion subsuming Georgia Rule 391-3-1-.02(2)(g), therefore, Rule 391-3-1-.02(2)(g) has not been added. Although the PSD Avoidance limit has also been removed due to discontinuation of fuel oil combustion, Georgia Rule 391-3-1-.02(2)(g) was previously subsumed by the more stringent limit under PSD Avoidance.
- Avoidance of PSD – The sulfur content of fuel oil burned in the boiler was limited to 0.15 percent by weight and subsumed Georgia Rule (g) however; fuel oil combustion was removed at the Applicant's request (Application 40994). The boiler is limited to firing natural gas only.
- 40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. Boiler H 6531 (Source Code AB01) is categorized as an existing boiler because of the date of installation and as a “unit designed to combust gas 1 fuels” because of the limitation to combust natural gas only. As such, Boiler H 6531 (Source Code AB01) is not subject to the emission limits in Tables 1 and 2 or 11 through 13 and the operating limits in Table 4 of 40 CFR 63 Subpart DDDDD (40 CFR 63.7500(e)). However, Boiler H 6531 (Source Code AB01) is subject to the work practice standards in Table 3 to 40 CFR 63 Subpart DDDDD. Work practice No. 3 for existing boilers with oxygen trim systems is a or 5-year tune up. Condition 3.3.4 of Permit No. 2873-245-0002-V-04-0 requires tune ups for Boiler H 6531 (Source Code AB01). Work practice No. 4 for existing boilers located at major sources requires a one-time energy assessment. The energy assessment was completed January 28, 2016 therefore, this requirement has been satisfied.

Boiler H 6532 (Source Code AB03), formally known as the ABB/CE Boiler, is rated at 192 MMBtu/hr and was manufactured in 1975 but installed at the facility in 1996. The unit was permitted to burn natural gas and no. 2 fuel oil however; fuel oil combustion was removed at the Applicant's request (Application 40994). The unit is not subject to 40 CFR 60 Subpart Db because it was constructed prior to the applicability date. The unit is subject to the following rules, regulations and limits:

- Georgia Rule 391-3-1-.02(2)(d) – Fuel-burning Equipment: The emission of PM is limited based on the heat input to the boiler. The opacity of emissions is limited to less than 20 percent, except for one six minute period per hour of not more than 27 percent.
- Georgia Rule 391-3-1-.02(2)(g) – Sulfur Dioxide: Boiler H 6532 (Source Code AB03) is limited to natural gas combustion subsuming Georgia Rule 391-3-1-.02(2)(g), therefore Rule 391-3-1-.02(2)(g) has not been added. Although the PSD Avoidance limit has also been removed due to discontinuation of fuel oil combustion, Georgia Rule 391-3-1-.02(2)(g) was previously subsumed by the more stringent limit under PSD Avoidance.
- Avoidance of PSD – The sulfur content of fuel oil burned in the boiler was limited to 0.15 percent by weight and subsumed Georgia Rule (g) however; fuel oil combustion was removed at the Applicant's request (Application 40994). The boiler is limited to firing natural gas only.
- Avoidance of PSD – The unit may burn only natural gas, is subject to a NO<sub>x</sub> emission cap, and is subject to fuel usage caps for natural gas. The permit also specifies emission rates while burning natural gas for PM/PM<sub>10</sub>, NO<sub>x</sub>, and CO. These limits serve to limit the emission of criteria pollutants.
- 40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. Boiler H 6532 (Source Code AB03) is categorized as an existing boiler because of the date of installation and as a “unit designed to combust gas 1 fuels” because of the limitation to combust natural gas only. As such, Boiler H 6532 (Source Code AB03) is not subject to the emission limits in Tables 1 and 2 or 11 through 13 and the operating limits in Table 4 of 40 CFR 63 Subpart DDDDD (40 CFR 63.7500(e)). However, Boiler H 6531 (Source Code AB01) is subject to the work practice standards in Table 3 to 40 CFR 63 Subpart DDDDD. Work practice No. 3 for existing boilers with oxygen trim systems is a or 5-year tune up. Condition 3.3.4 of Permit No. 2873-245-0002-V-04-0 requires tune ups for Boiler H 6531 (Source Code AB01). Work practice No. 4 for existing boilers located at major sources requires a one-time energy assessment. The energy assessment was completed January 28, 2016 therefore, this requirement has been satisfied.

The Synloop Startup Heater, H 6151, (Source Code AB04) is rated at 49 MMBtu/hr and is designated as a “limited use” process heater in accordance with 40 CFR 63, Subpart DDDDD – “National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters”. As such, the unit is limited in the quantity of natural gas fired annually. The Synloop Startup Heater (Source Code AB04) is classified as a process heater therefore, it is not a steam generating unit as defined in 40 CFR 60 Subpart Dc and is not subject to Subpart Dc. The unit is subject to the following rules, regulations and limits:

- Georgia Rule 391-3-1-.02(2)(d) – Fuel-burning Equipment: The emission of PM is limited based on the heat input to the boiler and the date of construction of the boiler. Depending on the age of the boiler, the opacity of emissions may be limited to less than 20 percent, except for one six minute period per hour of not more than 27 percent.
- Georgia Rule 391-3-1-.02(2)(g) – Sulfur Dioxide: The sulfur content of fuel is limited to 2.5 percent by weight.
- 40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters – The unit may burn only natural gas and is subject to a fuel usage cap for natural gas. The unit, as is subject to the 5-year tune-up and recordkeeping requirements.

The Ammonia Plant Gas Turbine (Source Code GT01) was initially installed in 1976 and has subsequently been modified. The permitted design capacity of the unit is 310 MMBtu/hr and it burns natural gas. The facility controls NO<sub>x</sub> emissions from the unit with a Steam Injection System (Source Code ST1). The unit is subject to the following rules, regulations and limits:

- 40 CFR 60 Subpart GG – Standards of Performance for Stationary Gas Turbines: The applicability date for the subpart is October 3, 1997 and it applies to all stationary gas turbines with a heat input at peak load equal to or greater than 10 MMBtu/hr. The facility triggered Subpart GG applicability when it was modified in 2001. 40 CFR 60.332(d) limits NO<sub>x</sub> emissions in terms of percent per volume based on the equation  $0.0150 (14.4/Y) + F$  where Y is the heat rate and F is the fuel-bound nitrogen allowable. The subpart also limits the fuel sulfur content to 0.8 percent, by weight.
- Georgia Rule 391-3-1-.02(2)(g) – Sulfur Dioxide: The sulfur content of fuel is limited to 2.5 percent by weight. This limit is subsumed by a more stringent limit under 40 CFR 60 Subpart GG.
- 40 CFR 64 – Compliance Assurance Monitoring: The unit is subject to CAM for NO<sub>x</sub> emissions.
- PSD Avoidance: The facility has accepted PSD avoidance limits for NO<sub>x</sub> emissions and steam injection rate.
- PSD Avoidance: The emissions from this unit are included in the VOC and CO emission caps for the Ammonia Plant.
- Other: In 2001 the facility agreed to stop injecting additional mercaptans into the gas line that feeds the turbine. The change resulted in reduced SO<sub>2</sub> emissions.

The Ammonia Plant Primary Reformer Furnace (Source Code AM01) was initially installed in 1977 and has been permitted for modification. The permitted design capacity of the unit is 408.5 MMBtu/hr on natural gas and 410 MMBtu/hr on process gas. The unit is subject to the following rules and limits:

- Georgia Rule 391-3-1-.02(2)(d) – Fuel-burning Equipment: The emission of PM is limited based on the heat input to the boiler. The opacity of emissions is limited to less than 20 percent, except for one six minute period per hour of not more than 27 percent. The unit is also subject to a NO<sub>x</sub> limit of 0.2 lb/MMBtu while firing gaseous fuel.
- Georgia Rule 391-3-1-.02(2)(g) – Sulfur Dioxide: The sulfur content of fuel is limited to 3.0 percent by weight. The unit only burns gaseous fuel; therefore, it is not likely this limit would be exceeded.
- PSD Avoidance: The emissions from this unit are included in the VOC and CO emission caps for the Ammonia Plant.

The Ammonia Plant Solution Regenerator Vent (Source Code AM04) was initially installed in 1978. The unit is subject to the following rules and limits:

- Georgia Rule 391-3-1-.02(2)(b) – Visible Emissions: The rule limits the opacity of emissions from air contaminant sources to less than 40 percent. Violation of the rule is not likely due to the nature of the vent.
- Georgia Rule 391-3-1-.02(2)(e) – Particulate Emission from Manufacturing Processes: The rule limits PM from a source based on the process input weight. Violation of the rule is not likely due to the nature of the vent.
- PSD Avoidance: The emissions from this unit are included in the VOC and CO emission caps for the Ammonia Plant.

The ACI Compressor Skid Vent (Source Code ACI1) was installed in 1994. The vent is not subject to any rule or regulation.

- PSD Avoidance: The emissions from this unit are included in the VOC and CO emission caps for the Ammonia Plant.

The ACI Water Separator (Source Code ACI3) was installed in 1994. The unit is subject to the following rules and limits:

- Georgia Rule 391-3-1-.02(2)(b) – Visible Emissions: The rule limits the opacity of emissions from air contaminant sources to less than 40 percent. Violation of the rule is not likely due to the nature of the vent.
- Georgia Rule 391-3-1-.02(2)(e) – Particulate Emission from Manufacturing Processes: The rule limits PM from a source based on the process input weight. Violation of the rule is not likely due to the nature of the vent.
- PSD Avoidance: The emissions from this unit are included in the VOC and CO emission caps for the Ammonia Plant.

The C002 Urea Plant Prill Tower (Source Code U201) was installed in 1978. The unit is subject to the following rules, regulations and limits:

- Georgia Rule 391-3-1-.02(2)(b) – Visible Emissions: The rule limits the opacity of emissions from air contaminant sources to less than 40 percent. Violation of the rule is not likely because the vent is equipped with a product recovery dust washer.
- Georgia Rule 391-3-1-.02(2)(e) – Particulate Emission from Manufacturing Processes: The rule limits PM from a source based on the process input weight. Violation of the rule is not likely because the vent is equipped with a product recovery dust washer.
- 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing: The vent from the prill tower is classified as a Group 2 continuous process vent under the subpart for potential emissions of methanol and formaldehyde. The classification was based on TRE testing. There are no limits that apply to Group 2 vents.
- PSD Avoidance: The facility accepted a prill production limit and a particulate matter limit to avoid PSD applicability for this source.

The C002 Urea Plant 7103 Process Vent (Source Code U203) and the C002 Urea Plant Central Vent Stack (ST-6751) (Source Code U202) are part of the C002 Urea Plant. The vents are subject to the following regulation:

- 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing: The vents are classified as a Group 2 continuous process vents under the subpart for potential emissions of methanol and formaldehyde. The classification was based on TRE testing. There are no limits that apply to Group 2 vents.

The C002 Urea Plant LDAR group (Source Code FUG) includes the valves, pumps, connectors, agitators, pressure relief devices, compressors, sampling connection systems, open-ended valves or lines, and closed vent systems and control devices that handle materials that regulated under 40 CFR 63 Subpart FFFF. The equipment is subject to the following regulation:

- 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing: 40 CFR 63 Subpart FFFF requires the facility to comply with 40 CFR 63 Subpart H, 40 CFR 63 Subpart UU, or 40 CFR 65 Subpart F for equipment leaks. The facility has elected to comply with 40 CFR 65 Subpart F. The rule applies to the facility for formaldehyde handling from the storage tank to where the material is introduced into the process.

The C002 Urea Plant Wastewater Stream (Source Code FUG) is subject to the following regulation:

- 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing: The stream was tested for methanol and it was determined that the stream is a Group 2 source under the subpart. There are no emission limits that apply but the facility must maintain some basic records.

The C002 Urea Plant Formaldehyde Tank (Source Code U108) is subject to the following regulation:

- 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing: The tank has a capacity less than 10,000 gallons and a vapor pressure of 1.33 kPa. This classifies the tank as a Group 2 source under the subpart. There are no emission limits for Group 2 tanks.

The Urea Pastille Plant Crystallization (Source Code P01) unit was installed in 2005. The unit is not subject to any specific rule or regulation.

The Urea Pastille Plant Dryer (Source Code P02) and the Urea Pastille Plant Rotoformers (Source Codes P03) were installed in 2005. The units are controlled with a scrubber (Source Code F1). The units are subject to the following rules and regulations:

- Georgia Rule 391-3-1-.02(2)(b) – Visible Emissions: The rule limits the opacity of emissions from air contaminant sources to less than 40 percent. Violation of the rule is not likely because the units are equipped with a scrubber.
- Georgia Rule 391-3-1-.02(2)(e) – Particulate Emission from Manufacturing Processes: The rule limits PM from a source based on the process input weight. Violation of the rule is not likely because the units are equipped with a scrubber.
- 40 CFR 64 – Compliance Assurance Monitoring: The units are subject to CAM for PM emissions.

The Urea Pastille Plant Dome Warehouse 1 (Source Code P04) was installed in 2005. The area is controlled with a baghouse (Source Code F2). The unit is subject to the following rules:

- Georgia Rule 391-3-1-.02(2)(b) – Visible Emissions: The rule limits the opacity of emissions from air contaminant sources to less than 40 percent. Violation of the rule is not likely because the area is equipped with a baghouse.
- Georgia Rule 391-3-1-.02(2)(e) – Particulate Emission from Manufacturing Processes: The rule limits PM from a source based on the process input weight. Violation of the rule is not likely because the area is equipped with a baghouse.

The C001 Nitric Acid Plant (Source Code N101) was originally installed in 1963 and has since been modified. The NO<sub>x</sub> emissions from the plant are controlled with a SCR System (Source Code C101). The plant is subject to the following regulations:

- 40 CFR 60 Subpart G – Standards of Performance for Nitric Acid Plant: The plant triggered this regulation when it was permitted for modification in 2007. The regulation applies to plants that commence construction or modification after August 17, 1971. The emission limits are 3.0 pounds of NO<sub>x</sub> per ton of acid produced and 10% opacity. The unit was previously subject to a site-specific limit of 21 pounds of NO<sub>x</sub> per ton of acid produced. This was more stringent than Georgia Rule (i), which had a limit of 25 pounds of NO<sub>x</sub> per ton of acid. Georgia Rule (i) no longer applies once Subpart G has been triggered.
- 40 CFR 64 – Compliance Assurance Monitoring: The unit is subject to CAM for NO<sub>x</sub> emissions.

The C002 Nitric Acid Plant (Source Code N201) was originally installed in 1977 and has since been modified. The NO<sub>x</sub> emissions from the plant are controlled with a NSCR System (Source Code AP07). The plant is subject to the following regulations and limits:

- 40 CFR 60 Subpart G – Standards of Performance for Nitric Acid Plant: The plant was subject to this regulation upon startup. The regulation applies to plants that commence construction or modification after August 17, 1971. The emission limits are 3.0 pounds of NO<sub>x</sub> per ton of acid produced and 10% opacity. Georgia Rule (i) does not apply to a source that is subject to Subpart G.
- 40 CFR 52.21 – The facility underwent a PSD review in 2004. The BACT analysis resulted in limits of 3.0 pounds of NO<sub>x</sub> per ton of acid produced, 10% opacity, 507 tpy NO<sub>x</sub>, and 30 pounds of CO per ton of acid produced.
- 40 CFR 64 – Compliance Assurance Monitoring: The unit is subject to CAM for NO<sub>x</sub> emissions.

The Nitric Acid Tanks (Source Codes NST1 – NST8) are equipped with a scrubber (Source Code AVS1) to control nitric acid emissions. The units are subject to the following rule:

- Georgia Rule 391-3-1-.02(2)(a)1 – Toxic Impact Analysis: The tanks are subject to a nitric acid emission limit. Violation of the limit is not likely due to the use of a scrubber.

The C001 AN Plant consists of a Neutralizer (Source Code AN01), a Prill Tower (Source Code A105), a Prill Dryer (Source Code A103), and a Prill Cooler (Source Code A104). The neutralizer is controlled with a scrubber (Source Code VS01). The dryer and cooler are controlled with cyclones (Source Codes AP08 and AP09, respectively). The units are subject to the following rules and regulations:

- Georgia Rule 391-3-1-.02(2)(b) – Visible Emissions: The rule limits the opacity of emissions from air contaminant sources to less than 40 percent. Violation of the rule is not likely due to the use of control devices.
- Georgia Rule 391-3-1-.02(2)(e) – Particulate Emission from Manufacturing Processes: The rule limits PM from a source based on the process input weight. Violation of the rule is not likely due to the use of control devices.
- 40 CFR 64 – Compliance Assurance Monitoring: The units (except for the Prill Tower) are subject to CAM for PM emissions.

The C002 AN Plant consists of a Neutralizer (Source Code AN02), a Prill Tower (Source Code A201), a Prill Dryer (Source Code A204), and a Prill Cooler (Source Code A202). Each unit is controlled with a scrubber (Source Codes AN02, A201, A204, and A202, respectively). The units are subject to the following rules and regulations:

- Georgia Rule 391-3-1-.02(2)(b) – Visible Emissions: The rule limits the opacity of emissions from air contaminant sources to less than 40 percent. Violation of the rule is not likely due to the use of control devices.
- Georgia Rule 391-3-1-.02(2)(e) – Particulate Emission from Manufacturing Processes: The rule limits PM from a source based on the process input weight. Violation of the rule is not likely due to the use of control devices.
- 40 CFR 64 – Compliance Assurance Monitoring: The units are subject to CAM for PM emissions.

*Equipment Not Included in the Renewal Permit*

The facility requested removal of the Rental Boiler (Source Code AB02) and combustion of fuel oil in the boilers. Therefore, the Rental Boiler and associated limits and conditions were removed as well as reference to fuel oil and fuel oil specific limits and conditions.

**C. Permit Conditions**

The equipment and rule applicability has not changed significantly since the issuance of Title V Permit No. 2873-245-0002-V-03-0. Unless otherwise stated, the conditions were carried over from Title V Permit No. 2873-245-0002-V-03-0.

Condition 3.2.1 was modified to limit Boiler H 6531 (Source Code AB01) to firing natural gas at the Applicant's request. Previously, the fuel oil sulfur limit for Boiler H 6531 was set at  $\leq 0.15$  percent allowing the facility to avoid PSD review. Additionally, reference to Boiler H 6532 was removed because it has been limited to natural gas combustion only by Condition 3.2.2.

Condition 3.2.2 was modified to limit Boiler H 6532 (Source Code AB03) to firing natural gas at the Applicant request. Previously, the fuel oil sulfur limit for Boiler H 6532 was set at  $\leq 0.15$  percent allowing the facility to avoid PSD review.

Condition 3.2.3 specifies the natural gas firing limit for the Boiler H 6532 (Source Code AB03). The limit allowed the facility to avoid PSD review.

Condition 3.2.4 specifies the emission limits for PM, PM<sub>10</sub>, NO<sub>x</sub>, and CO as emitted from Boiler H 6532 (Source Code AB03) while firing natural gas. The limits allowed the facility to avoid PSD review.

Condition 3.2.5 specifies the NO<sub>x</sub> emission limit for the Boiler H 6532 (Source Code AB03). The limit allowed the facility to avoid PSD review.

Condition 3.2.6 specifies the VOC and CO emissions limits for the Ammonia Plant. The limits allowed the facility to avoid PSD review.

Condition 3.2.7 specifies the minimum steam injection rate the facility must maintain for control of NO<sub>x</sub> emissions from the Ammonia Plant Gas Turbine. The Applicant has requested an increased minimum steam injection rate of 5,500 lbs/hr. The previous minimum steam injection rate was set at 5,000 lbs/hr. The modified Condition requires a steam injection rate of 5,500 pounds per hour or the value established in the most recent performance test, whichever is greater.

Condition 3.2.8 specifies a NO<sub>x</sub> limit for the Ammonia Plant Gas Turbine. The limit allowed the facility to avoid PSD review for the modifications permitted in Permit No. 2873-245-0002-V-02-6.

Condition 3.2.9 specifies a production limit for the C002 Urea Plant Prill Tower. The limit allowed the facility to avoid PSD review.

Condition 3.2.10 specifies a PM limit of 68.7 tpy for the operation of the C002 Urea Plant (Source Code U201). This Condition was established in Permit No. 2873-245-0002-V-03-6 which authorized replacement of the PSD avoidance particulate matter (PM) emission rate limit of 0.29 lb/ton urea prill produced with an equivalent PM emission limit of 68.7 tons per year from the C002 Urea Plant Prill Tower.

Condition 3.2.11 specifies the NO<sub>x</sub> and opacity limits for the C002 Nitric Acid Plant. The limits are applicable under PSD BACT and 40 CFR 60 Subpart G. The BACT analysis occurred in 2004.

Condition 3.2.12 specifies a ton per year NO<sub>x</sub> limit for the C002 Nitric Acid Plant. The limit is a PSD BACT limit and was established in 2004.

Condition 3.2.13 specifies a CO limit for the operation of the C002 Nitric Acid Plant. The limit is a PSD BACT limit and was established in 2004.

Condition 3.2.14 specifies a nitric acid emission limit for the Nitric Acid Tanks. The limit was established under the Toxic Impact Assessment Guidelines.

Condition 3.3.1 is the general applicability statement for 40 CFR 63 Subpart DDDDD as it applies to the boilers.

Condition 3.3.2 has been added to the permit to specify that Boiler H 6531 (Source Code AB01), and Boiler H6532 (Source Code AB03) are designated as existing industrial boilers in the “unit designed to burn gas 1” for 40 CFR 63 Subpart DDDDD.

Condition 3.3.3, established in Permit No. 2873-245-0002-V-03-4, limits the natural gas combusted in the existing Synloop Startup Heater (Source Code AB04) to 43 million cubic feet during any 12-consecutive month period. This is equivalent to an annual capacity factor of 10 percent or less.

Condition 3.3.4 requires a tune-up every five years for the Synloop Startup Heater (Source Code AB04), Boiler H 6531 (Source Code AB01) and Boiler H 6532 (Source Code AB03) following the procedures indicated in the condition. The Boilers operate an oxygen trim system which allows the 5-year tune-up frequency in accordance with 40 CFR 63.7540(12). The tune up requirement for the Synloop Startup Heater (Source Code AB04) was established in Permit No. 2873-245-0002-V-03-4.

Condition 3.3.5 requires the Permittee to conduct each 5-year tune-up required by Condition No. 3.3.3 no more than 61 months after the previous tune-up. The requirement for the 5-year tune up of the Synloop Startup Heater (Source Code AB04) was established in Permit No. 2873-245-0002-V-03-4.

Condition 3.3.6, requires the Permittee to conduct the tune-up of Boiler H 6531 (Source Code AB01), H 6532 (Source Code AB03), and the Synloop Startup Heater (Source Code AB04) no later than 30 calendar days of startup if the emission unit is not operating on the required day for the tune-up. The requirement for the Synloop Startup Heater (Source Code AB04) was established in Permit No. 2873-245-0002-V-03-4.

Condition 3.3.7 is the general applicability statement for 40 CFR 60 Subpart GG as it applies to the Ammonia Plant Gas Turbine.

Condition 3.3.8 specifies the NO<sub>x</sub> limit for the Ammonia Plant Gas Turbine under 40 CFR 60 Subpart GG.

Condition 3.3.9 specifies the sulfur content limit required by 40 CFR 60 Subpart GG for fuel burned in the Ammonia Plant Gas Turbine.

Condition 3.3.10 is the general applicability statement for 40 CFR 63 Subpart FFFF as it applies to the C002 Urea Plant.

Condition 3.3.11 specifies the SSM Plan requirements for the C002 Urea Plant under the requirements of 40 CFR 63 Subpart FFFF.

Condition 3.3.12 specifies that the facility must comply with the record keeping and reporting requirements for C002 Urea Plant wastewater subject to 40 CFR 63 Subpart FFFF.

Conditions 3.3.13 through 3.3.28 specify the LDAR requirements for components at the C002 Urea Plant that are subject to 40 CFR 63 Subpart FFFF.

Condition 3.3.29 is the general applicability statement for 40 CFR 60 Subpart G as it applies to the C001 Nitric Acid Plant and the C002 Nitric Acid Plant.

Condition 3.3.30 specifies the NO<sub>x</sub> and opacity limits for the C001 Nitric Acid Plant (Source Code N101) and the C002 Nitric Acid Plant (Source Code N201). The limits are applicable under 40 CFR 60 Subpart G.

Conditions 3.4.1 and 3.4.2 specify the PM and opacity requirements for Boiler H 6531 (Source Code AB01), Boiler H 6532 (Source Code AB03), and the Ammonia Plant Primary Reformer Furnace (Source Code AM01) under Georgia Rule (d).

Condition 3.4.3 specifies the NO<sub>x</sub> limit for the Ammonia Plant Primary Reformer Furnace (Source Code AM01) under Georgia Rule (d).

Condition 3.4.4 specifies that the facility can burn natural gas or process gas in the Ammonia Plant Primary Reformer Furnace (Source Code AM01). The condition is equivalent to compliance with the sulfur limit under Georgia Rule (g).

Conditions 3.4.5 and 3.4.6 are the opacity and particulate matter limit conditions for Georgia Rules (b) and (e).

Condition 3.5.1 specifies the facility may not inject additional mercaptans into the pipeline natural gas that is used in the Ammonia Plant Gas Turbine (Source Code GT01). The condition is not a 40 CFR 60 Subpart GG avoidance condition. Compliance with Subpart GG is determined through fuel sulfur content reports.

*Conditions Not Included in the Renewal Permit*

Former Conditions 3.2.5 through 3.2.6 pertaining to combustion of No. 2 fuel oil were not included because the Applicant requested the removal of fuel oil from the boilers.

Former Conditions 3.2.8 and 3.2.9 pertaining to the Rental Boiler were not included because the Rental Boiler has been removed.

Former Condition 3.2.15 was replaced by Condition 3.2.10 limiting the particulate matter emissions from the C002 Urea Plant Prill Tower (Source Code U201)

Former Conditions 3.3.1 and 3.3.2 pertaining to the Rental Boiler were not included because the Rental Boiler has been removed.

Former Condition 3.3.31 required the Permittee to conduct the initial tune-up of the Synloop Startup Heater no later than January 31, 2016 except as provided in 40 CFR 63.6(i). The tune up was conducted February 1, 2016.

Former Conditions 3.4.3 and 3.4.4 pertaining to the Rental Boiler were not included because the Rental Boiler has been removed.

Former Condition 3.5.1 pertaining to the Rental Boiler was not included because the Rental Boiler has been removed.

#### **IV. Testing Requirements (with Associated Record Keeping and Reporting)**

##### **A. General Testing Requirements**

The permit includes a requirement that the Permittee conduct performance testing on any specified emission unit when directed by the Division. Additionally, a written notification of any performance test(s) is required 30 days (or sixty (60) days for tests required by 40 CFR Part 63) prior to the date of the test(s) and a test plan is required to be submitted with the test notification. Test methods and procedures for determining compliance with applicable emission limitations are listed and test results are required to be submitted to the Division within 60 days of completion of the testing.

Condition 4.1.3e was amended to include reference to EPA Method 202 for determination of particulate matter.

##### **B. Specific Testing Requirements**

The testing requirements have not changed significantly since the issuance of Title V Permit No. 2873-245-0002-V-03-0. Unless otherwise stated, the conditions were carried over from Title V Permit No. 2873-245-0002-V-03-0.

Conditions 4.2.1 and 4.2.2 require the facility to conduct periodic performance tests for VOC and CO emissions from the Ammonia Plant. The conditions were added to the permit when the PSD avoidance cap for the plant was changed from a production based limit to emission based limits. The test results provide the data necessary to calculate VOC/CO emissions and determine compliance with the VOC/CO limits.

Condition 4.2.3 was modified in Permit No. 2873-245-0002-V-03-6 and requires the facility to conduct annual performance tests for PM emissions from the C002 Urea Plant Prill Tower. The test results are used to demonstrate compliance with the limits in Part 3.0 of the permit.

Condition 4.2.4 specifies the periodic testing requirements for the Group 2 continuous process vents subject to 40 CFR 63 Subpart FFFF at the C002 Urea Plant. The testing provides a reasonable assurance that the vents are Group 2 sources and are not subject to emission limitations. The condition was modified in Permit No. 2873-245-0002-V-03-7 to include the equipment changes for the Urea Plant production increase project.

Conditions 4.2.5 and 4.2.6 specify the test methods and procedures the facility must use for LDAR sources at the C002 Urea Plant that are subject to 40 CFR 63 Subpart FFFF.

Condition 4.2.7 specifies the annual test requirements for NO<sub>x</sub> and CO emissions from the C001 Nitric Acid Plant and the C002 Nitric Acid Plant.

Condition 4.2.8 specifies that the facility must calculate a conversion factor to convert CEMS ppm data to pound per ton of acid data for NO<sub>x</sub> and CO tests performed on the C001 Nitric Acid Plant and the C002 Nitric Acid Plant. The factor is necessary for calculating emissions and demonstrating compliance with the limits in Part 3.0 of the permit.

Conditions 4.2.9 and 4.2.10 specify the periodic testing requirements for PM emissions from the C002 AN Prill Plant. The test results are used to demonstrate compliance with the limit in Part 3.0 of the permit.

Condition 4.2.11 was added in Permit No. 2873-245-0002-V-03-7 to require performance testing following the completion of the Urea Plant production increase project.

*Conditions Not Included in the Renewal Permit*

Condition 4.2.3, from Permit No. 2873-245-0002-V-03-0, requiring a one-time performance test for NO<sub>x</sub> emissions from the Ammonia Plant Gas Turbine and the Ammonia Plant Primary Reformer Furnace following the modifications approved in Permit No. 2873-245-0002-V-02-6 was not included as the performance testing was completed on February 27, 2013 and August 14, 2013.

Condition 4.2.10, from Permit No. 2873-245-0002-V-03-0, requiring a one-time performance test of the C001 AN Plant-Neutralizer was not included as the performance testing was completed on November 20, 2012.

Condition 4.2.13, from Permit No. 2873-245-0002-V-03-0, requiring a one-time PM performance test of the Urea Pastille Plant, F1 Venturi Scrubber (Source Code P02 and P03) was not included as the performance testing was completed on January 31, 2013.

## **V. Monitoring Requirements**

### **A. General Monitoring Requirements**

Condition 5.1.1 requires that all continuous monitoring systems required by the Division be operated continuously except during monitoring system breakdowns and repairs. Monitoring system response during quality assurance activities is required to be measured and recorded. Maintenance or repair is required to be conducted in an expeditious manner.

### **B. Specific Monitoring Requirements**

Specific Monitoring Requirements have not changed significantly since the issuance of Title V Permit No. 2873-245-0002-V-03-0. Unless otherwise stated, the conditions were carried over from Title V Permit No. 2873-245-0002-V-03-0.

Condition 5.2.1.a specifies the NO<sub>x</sub> CEMS requirements for the C001 Nitric Acid Plant and the C002 Nitric Acid Plant. The continuous monitoring provides a reasonable assurance of compliance with limits under 40 CFR 52.21 and 40 CFR 60 Subpart G.

Condition 5.2.1.b specifies the CO CEMS requirements for the C002 Nitric Acid Plant. The continuous monitoring provides a reasonable assurance of compliance with the limit under 40 CFR 52.21.

Condition 5.2.2.a requires the facility to continuously monitor the steam injection rate for the Ammonia Plant Gas Turbine. The proper operation of the steam injection system provides a reasonable assurance that NO<sub>x</sub> emissions are minimized. The data is used to demonstrate compliance with requirements under PSD avoidance and 40 CFR 60 Subpart GG.

Condition 5.2.2.b requires the facility to continuously monitor the production rate for the C002 Urea Plant Prill Tower. The data is used to demonstrate compliance with PSD avoidance limits and limits under Georgia Rules (b) and (e).

Condition 5.2.2.c requires the facility to continuously monitor the production rates for the C001 Nitric Acid Plant and the C002 Nitric Acid Plant. The data is used to demonstrate compliance with limits under 40 CFR 52.21 and 40 CFR 60 Subpart G.

Conditions 5.2.2.d through 5.2.2.f require the facility to continuously monitor the AN melt volumetric flow rate for each product at the C001 AN Plant – Prill Tower and each product (i.e. low density and high density ammonium nitrate) at the C002 AN Plant – Prill Tower. The data is collected to show the facility is operating in a manner that minimizes the generation of PM.

Condition 5.2.3.a requires the facility to monitor and record the final product moisture for the C002 Urea Plant Prill Tower. The data is collected to show the facility is operating in a manner that minimizes the generation of PM.

Condition 5.2.3.b requires the facility to monitor operating parameters for the Urea Pastille Plant Scrubber. The proper operation of the scrubber provides a reasonable assurance of compliance with opacity and PM limits.

Condition 5.2.3.c requires the facility to monitor pressure drop for the Urea Pastille Plant Dome Warehouse 1 Baghouse. The proper operation of the baghouse provides a reasonable assurance of compliance with opacity and PM limits.

Condition 5.2.3.d requires the facility to monitor operating parameters for the Acid Vent Scrubber System. The proper operation of the scrubber provides a reasonable assurance of compliance with the nitric acid toxic impact assessment limit.

Condition 5.2.3.e requires the facility to monitor operating parameters for the C001 AN Plant – Neutralizer Scrubber. The proper operation of the scrubber provides a reasonable assurance of compliance with opacity and PM limits.

Conditions 5.2.3.f and 5.2.3.g require the facility to monitor the AN melt concentration and internal additive concentration for the C001 AN Plant – Prill Tower. The data is collected to show the facility is operating in a manner that minimizes the generation of PM.

Condition 5.2.3.h requires the facility to monitor operating parameters for the C002 AN Plant – Neutralizer Scrubber. The proper operation of the scrubber provides a reasonable assurance of compliance with opacity and PM limits.

Conditions 5.2.3.i and 5.2.3.j require the facility to monitor the AN melt concentration and internal additive concentration for the C002 AN Plant – Prill Tower. The data is collected to show the facility is operating in a manner that minimizes the generation of PM.

Condition 5.2.3.k requires the facility to monitor operating parameters for the C002 AN Plant – Prill Tower Scrubber. The proper operation of the scrubber provides a reasonable assurance of compliance for opacity and particulate matter limits.

Condition 5.2.3.l requires the facility to monitor operating parameters for the C002 AN Plant – Prill Dryer Scrubber. The proper operation of the scrubber provides a reasonable assurance of compliance with opacity and PM limits.

Condition 5.2.3.m requires the facility to monitor operating parameters for the C002 AN Plant – Prill Cooler Scrubber. The proper operation of the scrubber provides a reasonable assurance of compliance with opacity and PM limits.

Condition 5.2.4 requires the facility to maintain a preventative maintenance plan for the baghouses at the site. The purpose of the plan is to eliminate or minimize excess emissions of PM by preventing or quickly correcting maintenance issues.

Condition 5.2.5 requires the facility to maintain an inventory of spare parts for the CEMS. The purpose of the requirement is to minimize periods of monitor downtime due to malfunction.

Conditions 5.2.6 through 5.2.15 list the CAM requirements for the facility.

*Conditions Not Included in the Renewal Permit*

Not applicable.

C. Compliance Assurance Monitoring (CAM)

The facility operates units that are considered *pollutant specific emission units* (PSEUs) per Part 64 because they are (1) subject to a pollutant emission standard for which there is a control device, and (2) the pre-control potential emission for the pollutant is greater than the major source threshold.

The frequency of data collection under Part 64 depends on whether or not the controlled potential to emit exceed the major source threshold (i.e., whether the PSEU is a large PSEU). A large PSEU requires continuous monitoring while a PSEU that is not classified as large requires monitoring at least once per 24-hour period. The information for the CAM units is summarized below:

Emission Unit	Pollutant	Control	Potential Emissions (tpy)		Large PSEU?
			Uncontrolled	Controlled	
Ammonia Plant Gas Turbine	NO <sub>x</sub>	Steam Injection	>100	270.3	Yes
Urea Pastille Plant Dryer and Rotoformers	PM	Scrubber	>100	4.6	No
C001 Nitric Acid Plant	NO <sub>x</sub>	SCR	>100	1,759	Yes
C002 Nitric Acid Plant	NO <sub>x</sub>	NSCR	>100	507	Yes
C001 AN Plant – Neutralizer	PM	Scrubber	>100	<100	No
C001 AN Plant – Prill Dryer	PM	Cyclone	>100	<100	No
C001 AN Plant – Prill Cooler	PM	Cyclone	>100	<100	No
C002 AN Plant – Neutralizer	PM	Scrubber	>100	~20	No
C002 AN Plant – Prill Tower	PM	Scrubber	>100	~3.5	No
C002 AN Plant – Prill Dryer	PM	Scrubber	>100	~17.6	No
C002 AN Plant – Prill Cooler	PM	Scrubber	>100	~29.8	No

*Changes for the Renewal*

There have been no significant changes for the renewal permit.

*Other Units Not Subject to CAM*

The Urea Pastille Plant Dome Warehouse 1 is equipped with a baghouse; however, it is not subject to CAM. The potential uncontrolled PM emissions from the source are less than the CAM applicability threshold. The Nitric Acid Tanks are equipped with a scrubber; however, CAM does not apply to toxic impact assessment limits.

## **VI. Record Keeping and Reporting Requirements**

### **A. General Record Keeping and Reporting Requirements**

The Permit contains general requirements for the maintenance of all records for a period of five years following the date of entry and requires the prompt reporting of all information related to deviations from the applicable requirements. Records, including identification of any excess emissions, exceedances, or excursions from the applicable monitoring triggers, the cause of such occurrence, and the corrective action taken, are required to be kept by the Permittee and reporting is required on a quarterly or semiannual basis.

### **B. Specific Record Keeping and Reporting Requirements**

Specific record keeping and reporting requirements have not changed significantly since the issuance of Title V Permit No. 2873-245-0002-V-03-0. Unless otherwise stated, the conditions were carried over from Title V Permit No. 2873-245-0002-V-03-0.

Condition 6.1.7.a.i specifies as an excess emission any 3-hour period that NO<sub>x</sub> emissions from the C001 Nitric Acid Plant are greater than 3.0 pounds per ton of 100% acid produced. The condition is a reporting requirement for 40 CFR 60 Subpart G. The reporting condition referenced the original limit of 21 pounds per ton. This limit was subsumed by 40 CFR 60 Subpart G when the plant was approved for modification.

Condition 6.1.7.a.ii specifies as an excess emission any 3-hour period that NO<sub>x</sub> emissions from the C002 Nitric Acid Plant are greater than 3.0 pounds per ton of 100% acid produced. The condition is a reporting requirement for 40 CFR 60 Subpart G and 40 CFR 52.21.

Condition 6.1.7.a.iii specifies as an excess emission any 12-month period during which NO<sub>x</sub> emissions from the C002 Nitric Acid Plant exceed 507 tons. The condition is a reporting requirement for a limit established under 40 CFR 52.21.

Condition 6.1.7.a.iv specifies as an excess emission any 12-month period during which average CO emissions from the C002 Nitric Acid Plant are greater than 30.0 pounds per ton of 100% acid produced. The condition is a reporting requirement for a limit established under 40 CFR 52.21.

Condition 6.1.7.b.i specifies as an exceedance any period of process operation that Boiler H 6531 (Source Code AB01) or Boiler H 6532 (Source Code AB03) burns an unapproved fuel. The condition is a reporting requirement for a PSD avoidance condition.

Condition 6.1.7.b.ii specifies as an exceedance any 12-month period during which the amount of natural gas fired in Boiler H 6532 (Source Code AB03) exceeds 1,591 MMcf. The condition is a reporting requirement for a PSD avoidance condition.

Condition 6.1.7.b.iii specifies as an exceedance any 12-month period during which NO<sub>x</sub> emissions from Boiler H 6532 (Source Code AB03) equals or exceeds 40 tons. The condition is a reporting requirement for a PSD avoidance limit.

Condition 6.1.7.b.iv specifies as an exceedance any period of process operation during which the fuel fired in the Ammonia Plant Gas Turbine does not meet the limit in 40 CFR 60 Subpart GG.

Condition 6.1.7.b.v specifies as an exceedance any 12-month period during which VOC emissions from the Ammonia Plant exceed 163 tons. The limit is a PSD avoidance requirement. The condition was established with the approval of changing the Ammonia Plant operating cap from a production based limit to an emissions based limit.

Condition 6.1.7.b.vi specifies as an exceedance any 12-month period during which CO emissions from the Ammonia Plant exceed 166 tons. The limit is a PSD avoidance requirement. The condition was established with the approval of changing the Ammonia Plant operating cap from a production based limit to an emissions based limit.

Condition 6.1.7.b.vii specifies as an exceedance any consecutive 12-month period during which the urea prill production at the C002 Urea Plant Prill Tower is in excess of 474,000 tons. This is a reporting requirement for a PSD avoidance condition. The condition was established with the approval of modifications at the Urea Plant.

New Condition 6.1.7.b.viii specifies as an exceedance any consecutive 12-month period during which PM emissions, as calculated in accordance with Condition 6.2.12, exceed 68.7 tons. This is a reporting requirement for a PSD avoidance condition established in Permit No.: 2873-245-0002-V-03-6.

Condition 6.1.7.c.i specifies as an excursion any hourly average that the steam injection rate for the Ammonia Plant Gas Turbine is below the rate used to demonstrate compliance with the PSD avoidance and 40 CFR 60 Subpart GG limits for NO<sub>x</sub>.

Condition 6.1.7.c.ii specifies as an excursion any day the average prill production rate at the Urea Plant Prill Tower is outside the range of 400 to 1,500 tpd. The prill production rate indicates proper operation of the equipment such that PM emissions are minimized and compliance with Georgia Rules (b) and (e) is maintained.

Condition 6.1.7.c.iii specifies as an excursion any day the average final product moisture for the Urea Plant Prill Tower is greater than 1%. The product moisture indicates proper operation of the equipment such that PM emissions are minimized and compliance with Georgia Rules (b) and (e) is maintained. Permit No. 2873-245-0002-V-03-1 changed the definition of an excursion from a final product moisture content “less than or equal 1%” to “greater than 1%”.

Condition 6.1.7.c.iv specifies as an excursion any two readings for a Urea Pastille Plant control device that is outside of the prescribed ranges. The proper operation of the scrubber (Source Code F1) and the baghouse (Source Code F2) indicate compliance with Georgia Rules (b) and (e).

Condition 6.1.7.c.v specifies as an excursion any two consecutive readings that an average of an operating parameter for the Acid Vent Scrubber System is outside of the listed range. The condition is the reporting requirement for the air toxic assessment guideline limit for nitric acid.

Condition 6.1.7.c.vi specifies as an excursion any 8-hour period during which an operating parameter average for the C001 AN Plant – Neutralizer Scrubber is outside of the listed range. The proper operation of the scrubber indicates compliance with Georgia Rules (b) and (e). Permit No. 2873-245-0002-V-03-2 changed the pump pressure range at the venture from 35 – 45 psig to 15 – 45 psig and changed the scrubbant volumetric flow range from 95 – 200 gpm to 85 – 200 gpm.

Condition 6.1.7.c.vii specifies as an excursion any day the average AN melt flow rate for the C001 AN Plant – Prill Tower is outside of the listed range. The data is used to demonstrate that the plant is operating in a manner that minimizes emissions and indicates compliance with Georgia Rules (b) and (e).

Condition 6.1.7.c.viii specifies as an excursion any day the average AN melt concentration for the C001 AN Plant – Prill Tower is less than 95 percent for more than 8 hours. The data is used to demonstrate that the plant is operating in a manner that minimizes emissions and indicates compliance with Georgia Rules (b) and (e).

Condition 6.1.7.c.ix specifies as an excursion any 8-hour period during which the average internal additive concentration for the C001 AN Plant – Prill Tower is outside of the listed range. The data is used to demonstrate that the plant is operating in a manner that minimizes emissions and indicates compliance with Georgia Rules (b) and (e).

Condition 6.1.7.c.x specifies as an excursion any 8-hour period during which an operating parameter average for the C002 AN Plant – Neutralizer Scrubber is outside of the listed range. The proper operation of the scrubber indicates compliance with Georgia Rules (b) and (e).

Condition 6.1.7.c.xi specifies as an excursion any day during which the average AN melt flow rate for the C002 AN Plant – Prill Tower is outside of the listed range. The data is used to demonstrate that the plant is operating in a manner that minimizes emissions and indicates compliance with Georgia Rules (b) and (e).

Condition 6.1.7.c.xii specifies as an excursion any day during which the average AN melt concentration for the C002 AN Plant – Prill Tower is less than 95 percent for more than 8 hours. The data is used to demonstrate that the plant is operating in a manner that minimizes emissions and indicates compliance with Georgia Rules (b) and (e).

Condition 6.1.7.c.xiii specifies as an excursion any 8-hour period during which the average internal additive concentration for the C002 AN Plant – Prill Tower is outside of the listed range for each product type. The data is used to demonstrate that the plant is operating in a manner that minimizes emissions and indicates compliance with Georgia Rules (b) and (e).

Condition 6.1.7.c.xiv specifies as an excursion any 8-hour period during which an operating parameter average for the C002 AN Plant – Prill Tower Scrubber is outside of the listed range. The proper operation of the scrubber indicates compliance with Georgia Rules (b) and (e). The exhaust blower motor amperage was changed from 35 – 45 amps to 30 – 45 amps by Permit No. 2873-245-0002-V-03-3.

Condition 6.1.7.c.xv specifies as an excursion any 8-hour period during which an operating parameter average for the C002 AN Plant – Prill Dryer Scrubber is outside of the listed range. The proper operation of the scrubber indicates compliance with Georgia Rules (b) and (e).

Condition 6.1.7.c.xvi specifies as an excursion any 8-hour period during which an operating parameter average for the C002 AN Plant – Prill Cooler Scrubber is outside of the listed range. The proper operation of the scrubber indicates compliance with Georgia Rules (b) and (e).

Condition 6.2.1 requires the facility to calculate monthly and 12-month rolling fuel usage totals for Boiler H 6532. The information is used to demonstrate compliance with the PSD avoidance limits for the consumption of natural gas.

Condition 6.2.2 requires the facility to calculate monthly and 12-month rolling NO<sub>x</sub> emission totals for Boiler H 6532. The data is used to demonstrate compliance with the PSD avoidance limit for NO<sub>x</sub>.

Condition 6.2.3 requires the facility to verify the sulfur content of natural gas burned in the Ammonia Plant Gas Turbine through an analysis provided by the gas supplier. This provision satisfies the fuel sulfur monitoring requirements under 40 CFR 60 Subpart GG.

Condition 6.2.4 states that the facility is not required to determine the nitrogen content of natural gas burned in the Ammonia Plant Gas Turbine. This is allowed under alternative provisions of 40 CFR 60 Subpart GG.

Condition 6.2.5 requires the facility to maintain monthly records of the amount of natural gas burned in the Ammonia Plant Gas Turbine. These are general operating records that pertain to 40 CFR 60 Subpart GG.

Condition 6.2.6 requires the facility to maintain monthly records for the operation of the Ammonia Plant. This includes the amount of ammonia produced and the quantity of gas fuel fired. The records are used to calculate the VOC and CO emissions from the Ammonia Plant and demonstrate compliance with the related PSD avoidance limits. The provisions were added to the permit when the facility switched from a production based limit to emissions based limits.

Condition 6.2.7 requires the facility to use the Ammonia Plant operating records to calculate monthly and 12-month rolling totals for VOC emissions. The calculations are used to demonstrate compliance with the PSD avoidance limit in Part 3.0 of the permit. The provisions were added to the permit when the facility switched from a production based limit to emissions based limits. The condition refers to the test required under Condition 4.2.1 rather than numerical values. The numerical values will change after each test.

Condition 6.2.8 requires the facility to use the Ammonia Plant operating records to calculate monthly and 12-month rolling totals for CO emissions. The calculations are used to demonstrate compliance with the PSD avoidance limit in Part 3.0 of the permit. The provisions were added to the permit when the facility switched from a production based limit to emissions based limits. The condition refers to the test required under Condition 4.2.2 rather than numerical values. The numerical values will change after each test.

Condition 6.2.9 requires the facility to calculate monthly and 12-month rolling urea prill production totals for the C002 Urea Plant Prill Tower. The calculations are used to demonstrate compliance with the PSD avoidance limit in Part 3.0 of the permit.

Condition 6.2.10, established in Permit No. 2873-245-0002-V-03-6, requires daily records of the urea prill produced by the C002 Urea Plant Prill Tower (Source Code U201) in order to demonstrate compliance with the PSD particulate matter limit of 68.7 tpy.

Condition 6.2.11, established in Permit No. 2873-245-0002-V-03-6, requires calculation of monthly PM emissions from the C002 Urea Plant Prill Tower (Source Code U201) which is the product of the most recent performance test and tons of urea prill produced.

Condition 6.2.12, established in Permit No. 2873-245-0002-V-03-6, requires calculation of rolling 12-month total PM emissions from the C002 Urea Plant Prill Tower (Source Code U201) and notification if total PM emissions exceed 5.7 tons during any calendar month.

Condition 6.2.13 allows the facility to change the number and type of rotoformers at the Urea Pastille Plant, provided that the total capacity does not exceed the equivalent of 10 standard rotoformers.

Condition 6.2.14 requires the facility to maintain general records for the Group 2 wastewater streams subject to 40 CFR 63 Subpart FFFF as the C002 Urea Plant.

Conditions 6.2.15 and 6.2.16 list the records the facility must maintain and the compliance reports that must be submitted under 40 CFR 63 Subpart FFFF for the operation of the C002 Urea Plant.

Conditions 6.2.17 through 6.2.21 specify the LDAR requirements for components at the C002 Urea Plant that are subject to 40 CFR 63 Subpart FFFF.

Condition 6.2.22 requires the facility to use the C002 Nitric Acid Plant CEMS and performance test data to calculate monthly and 12-month rolling totals for NO<sub>x</sub> emissions. The calculations are used to demonstrate compliance with the PSD avoidance limit in Part 3.0 of the permit.

Condition 6.2.23 requires the facility to use the C002 Nitric Acid Plant CEMS and performance test data to calculate monthly and 12-month rolling totals for CO emissions. The calculations are used to demonstrate compliance with the PSD avoidance limit in Part 3.0 of the permit.

Condition 6.2.24, established in Permit No. 2873-245-0002-V-03-4, requires the Permittee to submit a 5-year report for the Synloop Heater, aka Boiler H 6151, (Source Code AB04) instead of a semiannual report following the procedure specified in the condition. The existing Synloop Heater Boiler H 6151 (Source Code AB04) was designated as limited use in accordance with 40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. The condition has been updated for the renewal to include reference to Boiler H 6531 (Source Code AB01) and Boiler H 6532 (Source Code AB03).

Condition 6.2.25, established in Permit No. 2873-245-0002-V-03-4, requires the Permittee to submit a compliance report for the Synloop Heater, aka Boiler H 6151, (Source Code AB04) containing the information specified in the condition. The condition has been updated for the renewal to include reference to Boiler H 6531 (Source Code AB01) and Boiler H 6532 (Source Code AB03).

Condition 6.2.26, established in Permit No. 2873-245-0002-V-03-4, requires the Permittee to keep records as specified in the condition for the Synloop Heater, aka Boiler H 6151, (Source Code AB04). The condition has been updated for the renewal to include reference to Boiler H 6531 (Source Code AB01) and Boiler H 6532 (Source Code AB03).

Condition 6.2.27 requires the Permittee to monitor emission of NO<sub>x</sub>, VOC, PM, PM<sub>10</sub>, PM<sub>2.5</sub>, CO, and SO<sub>2</sub> from the turnaround project (Application No. 40593) and calculate and maintain a record of the annual emissions in tons per year for a period of ten years. These records are required to be retained for a period of five years past the end of each calendar year. The Condition was added in Permit 2873-245-0002-V-03-5.

Condition 6.2.28 requires the Permittee to submit a report to the Division, within 60 days after the end of each year, setting out the turnaround annual emissions of NO<sub>x</sub>, VOC, PM, PM<sub>10</sub>, PM<sub>2.5</sub>, CO, and SO<sub>2</sub> and, if applicable, the turnaround actual increase in emissions during the calendar year that preceded submission of the report. The Permittee is required to notify the Division if the emissions of NO<sub>x</sub>, VOC, PM, PM<sub>10</sub>, PM<sub>2.5</sub>, CO, and SO<sub>2</sub> exceed the indicated amounts. The Condition was added in Permit 2873-245-0002-V-03-5.

Conditions 6.2.29 through 6.2.33 were established in Permit No. 2873-245-0002-V-03-7. The requirements are recordkeeping provisions related to the Urea Plant increase project.

#### *Conditions Not Included in the Renewal Permit*

Former Condition 6.1.7.b.i which specified as an exceedance fuel oil combusted in Boiler H6531 (Source Code AB01) or Boiler H6532 (Source Code AB03) exceeding 0.15 percent sulfur by weight. The condition was deleted because fuel oil combustion was removed from the permit at the Applicant's request. The fuel oil sulfur content limitation was a PSD Avoidance limit.

Former Condition 6.1.7.b.iv which specified as an exceedance any time the fuel oil combusted in Boiler H 6532 (Source Code AB03) exceeds 1,849,020 gallons. The condition was deleted because fuel oil combustion was removed from the permit at the Applicant's request. The fuel oil sulfur content limitation was a PSD Avoidance limit.

Former Condition 6.2.1 requiring verification of the sulfur content of fuel oil was removed.

Former Conditions 6.1.7.b.vi, 6.2.4 through 6.2.8 were removed as they pertained to the Rental Boiler. The Rental Boiler was removed.

Former Condition 6.2.27 required notice of completion of the C001 Nitric Acid Plant (Source Code N101) Phase I and Phase II projects was removed as the phases were completed March 15, 2009 and August 10, 2012, respectively.

Former Condition 6.2.28 required the Permittee to submit, within 60 days of January 31, 2016, the Notification of Compliance Status for the Synloop Startup Heater. The NOCS was received March 28, 2016.

## VII. Specific Requirements

### A. Operational Flexibility

- Condition 7.1.1 allows Operational Flexibility under Section 502(b)(10) changes as defined in 40 CFR 70.2.
- Condition 7.2.1 allows Off-Permit Changes and specifies the requirements which must be met for such changes.
- Condition 7.2.2 prohibits changes that are subject to any requirements under Title IV of the Federal Act or are modifications under any provision of Title I of the Federal Act without a Permit revision.

### B. Alternative Requirements

Not Applicable.

### C. Insignificant Activities

Refer to <http://gatv.georgiaair.org/GATV/default.asp> for the Online Title V Application.

Refer to the following forms in the Title V permit application:

- Form D.1 (Insignificant Activities Checklist)
- Form D.2 (Generic Emissions Groups)
- Form D.3 (Generic Fuel Burning Equipment)
- Form D.6 (Insignificant Activities Based on Emission Levels of the Title V permit application)

### D. Temporary Sources

Not Applicable.

### E. Short-Term Activities

Condition 7.6.1 requires records of the duration and frequency of the listed Short Term Activities.

### F. Compliance Schedule/Progress Reports

Not Applicable.

### G. Emissions Trading

Not Applicable.

### H. Acid Rain Requirements

Not Applicable.

**I. Stratospheric Ozone Protection Requirements**

Not Applicable.

**J. Pollution Prevention**

Not Applicable.

**K. Specific Conditions**

Not Applicable.

**VIII. General Provisions**

Generic provisions have been included in this permit to address the requirements in 40 CFR Part 70 that apply to all Title V sources, and the requirements in Chapter 391-3-1 of the Georgia Rules for Air Quality Control that apply to all stationary sources of air pollution.

Template Condition 8.14.1 was updated in September 2011 to change the default submittal deadline for Annual Compliance Certifications to February 28.

Template Condition Section 8.27 was updated in August 2014 to include more detailed, clear requirements for emergency generator engines currently exempt from SIP permitting and considered insignificant sources in the Title V permit.

Template Condition Section 8.28 was updated in August 2014 to more clearly define the applicability of the Boiler MACT or GACT for major or minor sources of HAP.

**Addendum to Narrative**