Facility Name: **Carbo Ceramics, INC.**
City: Mclntyre
County: Wilkinson
AIRS #: 04-13-319-00027

Application #: TV-10230, 10721, 12734 and 13099
Date Application Received: June 5, 2001 (updated version)
Date Application Deemed Administratively Complete: August 17, 2001
Date of Draft Permit: October 9, 2001
Permit No: 3295-319-0027-V-02-0

Program	Review Engineers	Review Managers
SSPP/ASU	Jing Wang	James Current
SSCP/ASU	Richard McDonald	Lou Musgrove
ISMP	James Kelly	Larry Webber
Toxics	---	---

Introduction

This narrative is being provided to assist the reader in understanding the content of the attached draft Part 70 operating permit. Complex issues and unusual items are explained herein simpler terms and/or greater detail than is sometimes possible in the actual permit. This 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 Amendments of 1990. Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control incorporates requirements of Part 70 of Chapter I of Title 40 of the Code of Federal Regulations promulgated pursuant to the Federal Clean Air Act. The primary purpose of this permit is to consolidate and identify existing state and federal air requirements applicable to Carbo Ceramics, INC. and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the draft permit and is presented in the same general order as the permit. It initially describes the facility receiving the permit, the applicable requirements and their significance, and the methods for determining compliance with those applicable requirements. This 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: Carbo Ceramics, Inc.

2. Parent/Holding Company Name

Carbo Ceramics, Inc.

3. Previous and/or Other Name(s)

Carbo Ceramics, Inc.

4. Facility Location

2295 Wriley Road
Mclntyre, GA 31054 (Wilkinson County)

5. Attainment or Non-attainment Area Location

The facility is located in an attainment area.

6. Class I Area Impacts

The facility is not located within 100 km of a Class I area.

B. Site Determination

Not applicable.

C. Existing Permits

Table 1: List of Current Permits as Amended

Permit Number and/or Purpose of Issuance	Date of Issuance and Date of Amendments (if any)	Comments	
		Yes	No
3295-319-0027-E-01-0	**December 30, 1997**		✓

D. Process Description

1. SIC Code(s)

SIC code – 3295

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.

2. Description of Product(s)

The facility manufactures the ceramic pellets.

3. Overall Facility Process Description

The Carbo Ceramics, INC. facility in Mclntyre, GA is engaged in the production of ceramic pellets for use in the natural gas mining industry. The major raw materials are alumina-rich clay, water and bauxite.

Clay, rich in alumina is unloaded in the covered crude storage area to await processing. The clay is shredded and then fed to a cage mill dryer and a cyclone. Emissions from the cage mill dryer and cyclone operations are controlled by baghouses (BH) 01, 02 and standby (SB) and are released through stack S001. The clay is next fed to a calciner. Emissions from the calcining operations are controlled by BH04 and BH05 (SB) and are released through stack S002. The material is then fed to a calciner cooler where emissions are controlled by BH24 and BH25 (SB) and are released through stack S016. Nuisance BH06 controls dust generated from the transfer of material in both the cage mill and calciner feed bins and is emitted through stack S003.

After the calcining operations, the clay is fed to one of two ball mills where the clay is crushed and classified to the proper size. Bauxite can enter the process at this point as well. Emissions from #1 ball mill are controlled by BH07 and are released through stack S004. Emissions from #2 ball mill are controlled by BH08 and are released through stack S005. Nuisance dust generated from the feeding of #1 ball mill is controlled by BH26 and is released through stack S017. Nuisance dust generated from the feeding of #2 ball mill is controlled by BH27 and released through stack S018.

The clay is then fed to several mixers where water is added. Dust emissions from this process are controlled by BH09 and BH10 and are released through stacks S006 and S007 respectively. The mixed clay is then dried in one of two dryers. Emissions from dryer #1 are controlled by BH11, BH12, and BH13 (SB) and are released through stack S008. Emissions from dryer #2 are controlled by BH14, BH15 and BH16 (SB) and are released through stack S009.

The dried clay is fed to several screens and then fired in one of two rotary kilns. Emissions generated from kiln #1 are controlled by BH17 and BH18 (SB) and are released through stack S010. Emissions generated from kiln #2 are controlled by BH19, and BH28 (SB) and are released through stack S011. The fired product is then fed to product screens where emissions are controlled by BH20 for #1 product screens and BH21 for #2 product screens and are released through stacks S012 and S013 respectively. The finished product can be bagged an/or shipped by truck or rail. Dust emissions from product bulk storage area are controlled by #1 loadout BH22, and #2 loadout BH23 and are released through stacks S014 and S015 respectively.

4. Overall Process Flow Diagram (optional)

The process flow diagrams are included.

E. Regulatory Status

1. PSD/NSR

Carbo Ceramics, INC. is a minor source under PSD/NSR regulations.

2. Title V Major Source Status by Pollutant

Table 3: 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	Yes	✓		
PM_{10}	Yes	✓		
SO_2	Yes			✓
VOC	Yes			✓
NO_x	Yes			✓
CO	Yes			✓
TRS	---			
H_2S	---			
Individual HAP	---			
Total HAPs	---			

3. MACT Standards

This facility is not subject to MACT Standards.

4. Program Applicability

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

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

None.

B. Applicable Rules and Regulations

- Rules and Regulations Assessment – Generic conditions, not specifically related to this facility.
- Emission and Operating Standards – None.

C. Compliance Status

Not Applicable.

D. Operational Flexibility

Not applicable.

E. Permit Conditions

None.

III. Regulated Equipment Requirements

A. Brief Process Description

The facility produces the ceramic pellets product.

B. Equipment List for the Process

Table 1

Emission Units		Specific Limitation(s)/Requirements		Air Pollution Control Devices	
ID No.(s)	Description	Applicable Requirement(s) / Standard(s)	Corresponding Permit Condition(s)	ID No.(s)	Description
Dryers and Calciner					
CMFB	Cage Mill Feed Bin	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.4.2, 3.5.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7	BH06	Baghouse
CMD1	Cage Mill Flash Dryer (with cyclone(CYC1))	391-3-1-.02(2)(b) 391-3-1-.02(2)(g) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.4.2, 3.5.1, 3.5.2, 5.2.2, 5.2.3, 5.3.1, 6.1.7	BH01, BH02, BH03(SB)	Baghouse
CFB	Calciner Feed Bin	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.4.2, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1	BH06	Baghouse
CLN1	Calciner	391-3-1-.02(2)(b) 391-3-1-.02(2)(g) 391-3-1-.02(2)(p)1 NSPS UUU	3.3.2, 3.4.3, 3.5.1, 3.5.2, 4.2.1, 5.2.2, 5.2.3, 5.2.4, 5.3.1, 6.1.7, 6.2.1	BH04, BH05(SB)	Baghouse
CNC	Calciner Cooler	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH24, BH25(SB)	Baghouse
DRY1	Dryer #1 (Rotary Calciner)	391-3-1-.02(2)(b) 391-3-1-.02(2)(g) 391-3-1-.02(2)(p)1 NSPS UUU	3.3.2, 3.4.3, 3.5.1, 3.5.2, 4.2.1, 5.2.2, 5.2.3, 5.2.4, 5.3.1, 6.1.7, 6.2.1	BH11, BH12, BH13(SB)	Baghouse
DRY2	Dryer #2 (Rotary Calciner)	391-3-1-.02(2)(b) 391-3-1-.02(2)(g) 391-3-1-.02(2)(p)1 NSPS UUU	3.3.2, 3.4.3, 3.5.1, 3.5.2, 4.2.1, 5.2.2, 5.2.3, 5.2.4, 5.3.1, 6.1.7, 6.2.1	BH14, BH15, BH16(SB)	Baghouse
KLN1	Kiln #1 (Rotary Kiln)	391-3-1-.02(2)(b) 391-3-1-.02(2)(g) 391-3-1-.02(2)(p)1 NSPS UUU	3.3.2, 3.4.3, 3.5.1, 3.5.2, 4.2.1, 5.2.1, 5.2.2, 5.2.3, 5.2.4, 5.3.1, 6.1.7, 6.2.1	BH17, BH18(SB)	Baghouse
KLN2	Kiln #2 (Rotary Kiln)	391-3-1-.02(2)(b) 391-3-1-.02(2)(g) 391-3-1-.02(2)(p)1 NSPS UUU	3.3.2, 3.4.3, 3.5.1, 3.5.2, 4.2.1, 5.2.1, 5.2.2, 5.2.3, 5.2.4, 5.3.1, 6.1.7, 6.2.1	BH19, BH28(SB)	Baghouse
Premills and Postmills					
BMF1	Ball Mill Feed Bin#1	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH26	Baghouse

Emission Units		Specific Limitation(s)/Requirements		Air Pollution Control Devices	
ID No.(s)	**Description**	**Applicable Requirement(s) / Standard(s)**	**Corresponding Permit Condition(s)**	**ID No.(s)**	**Description**
BMC1	Ball Mill Feeder #1	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH26	Baghouse
BML1	Ball Mill #1	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH07	Baghouse
BMF2	Ball Mill Feed Bin#2	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH27	Baghouse
BMC2	Ball Mill Feeder #2	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH27	Baghouse
BML2	Ball Mill #2	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH08	Baghouse
Mixers					
MIX1	Mixer #1(Feed Bin)	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH09	Baghouse
MIX2	Mixer #2 (Feed Bin)	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH09	Baghouse
MIX3	Mixer #3 (Feed Bin)	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH09	Baghouse
MIX4	Mixer #4 (Feed Bin)	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH10	Baghouse
MIX5	Mixer #5 (Feed Bin)	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH10	Baghouse
MIX6	Mixer #6 (Feed Bin)	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH10	Baghouse
Screens					
PS01	#1 Product Screen	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.4.2, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH20	Baghouse
PS02	#2 Product Screen	391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1	BH21	Baghouse
FS01	#1 Fine Screen	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.4.2, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH20	Baghouse
FS02	#2 Fine Screen	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.4.2, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH21	Baghouse

Emission Units		Specific Limitation(s)/Requirements		Air Pollution Control Devices	
ID No.(s)	Description	Applicable Requirement(s) / Standard(s)	Corresponding Permit Condition(s)	ID No.(s)	Description
Product Storage					
BS1	Product Storage #1	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.4.2, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH22	Baghouse
BS2	Product Storage #2	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.4.2, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH22	Baghouse
BS3	Product Storage #3	391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.4.2, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH22	Baghouse
BS4	Product Storage # 4	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.4.2, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH22	Baghouse
BS5	Product Storage #5	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.4.2, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH22	Baghouse
BS6	Product Storage # 6	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.4.2, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH23	Baghouse
BS7	Product Storage #7	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.4.2, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH23	Baghouse
BS8	Product Storage #8	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.4.2, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH23	Baghouse
BS9	Product Storage #9	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.4.2, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH23	Baghouse
BS10	Product Storage # 10	391-3-1-.02(2)(b) 391-3-1-.02(2)(p)1 NSPS OOO	3.3.1, 3.4.1, 3.4.2, 3.5.1, 4.2.1, 5.2.2, 5.2.3, 5.3.1, 6.1.7, 6.2.1, 6.2.2	BH23	Baghouse

* Generally applicable requirements contained in this permit may also apply to emission units listed above.

C. Equipment & Rule Applicability

Emission and Operating Caps –

Not applicable.

Applicable Rules and Regulations –

1. 40 CFR, Part 60, Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" is listed in the permit as Condition 3.3.1. Each listed piece of equipment in Table 3.1 subject to this requirement has 3.3.1 in the column, ACorresponding Permit Condition≅. This requirement applies to any crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station constructed, reconstructed, or modified after

August 31, 1983. Emission requirements associated with this rule include no visible fugitive emissions greater than 10 percent opacity. Stack emissions shall not contain particulate matter in excess of 0.05 g/dscm (0.02 grains/dscf) and exhibit greater than 7 percent opacity.

2. 40 CFR, Part 60, Subpart UUU, "Standards of Performance for Calciners and Dryers in Mineral Industries" is listed in the permit as Condition 3.3.2. Each listed piece of equipment in Table 3.1 subject to this requirement has 3.3.2 in the column, ACorresponding Permit Condition≅. In order for 40 CFR, Part 60, Subpart UUU to be applicable, the emission sources shall have been constructed, reconstructed, or modified after April 23, 1986.

   Emission requirements associated with this rule include any gases, which contain particulate matter in excess of 0.092 grams/dscm (0.04 grains/dscf) for calciners and calciners and dryers installed in series. For dryers, which stand alone, the emissions shall not contain particulate matter in excess of 0.057 grams/dscm (0.025 grains/dscf). For both series and parallel operations, the opacity is limited not to exceed 10 percent opacity.

3. Georgia Rule 391-3-1-.02(2)(p), "Particulate Emissions from Kaolin and Fuller's Earth Processes," is listed in the permit as Condition 3.4.1. Each listed piece of equipment in Table 3.1 subject to this requirement has 3.4.1 in the column, ACorresponding Permit Condition≅. The following equations are used to calculate the allowable rates of emission from kaolin and fuller's earth process equipment constructed or put in operation. Particulate matter emissions cannot equal to or exceed the allowable rates specified in the below equations.

   a. For equipment constructed or extensively modified after January 1, 1972, the following equations is used to determine allowable emission rates:

      i. $E = 3.59\ P^{0.62}$, for process input weight rate up to and including 30 tons per hour;
      ii. $E = 17.31\ P^{0.16}$, for process input weight rates in excess of 30 tons per hour.

      In the above equations: E = allowable emission rate in pounds per hour; and P = process input weight rate in tons per hour.

4. Georgia Rule 391-3-1-.02(2)(b)1 AVisible Emissions≅ is an applicable rule, which applies to all facilities and is listed in the permit as Condition 3.4.2. Each listed piece of equipment in Table 3.1 subject to this requirement has 3.4.2 in the column, ACorresponding Permit Condition≅. Visible emissions shall not equal or exceed forty (40) percent.

5. Georgia Rule 391-3-1-.02(2)(g) ASulphur Dioxide≅ is an applicable rule, which applies to all facilities and is listed in the permit as Condition 3.5.2. Each listed piece of equipment in Table 3.1 subject to this requirement has 3.5.2 in the column, ACorresponding Permit Condition≅. All fuel burning sources below 100 million BTU's of heat input per hour shall not burn fuel containing more than 2.5 percent sulfur, by weight.

D. Compliance Status

The application indicates that the facility is in compliance with all applicable rules and regulations.

E. Operational Flexibility

Not applicable.

F. Permit Conditions

Permit Condition 3.3.1 states the any crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station constructed, reconstructed, or modified after August 31, 1983, is subject to 40 CFR, Part 60, Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants". Emission requirements associated with this rule include no visible fugitive emissions greater than 10 percent opacity. Stack emissions shall not contain particulate matter in excess of 0.05 g/dscm (0.02 grains/dscf) and exhibit greater than 7 percent opacity.

Permit Condition 3.3.2 states that any calciner or calciner and dryer installed in series constructed, reconstructed, or modified after April 23, 1986, is subject to 40 CFR, Part 60 Subpart UUU, "Standards of Performance for Calciners and Dryers in Mineral Industries".

Permit Condition 3.4.1 states the Georgia Rule (p) equations used to calculate the allowable rates of emission from kaolin and fuller's earth process equipment constructed or operated. Particulate matter emissions can not equal to or greater than the allowable rates specified in the stated equations.

Permit Condition 3.4.2 states that any gases discharged from any air contaminant source shall not exceed 40% opacity, as required by Georgia Air Quality Rule 391-3-1-.02(2)(b)1.

Permit Condition 3.5.1 requires that the Permittee shall operate all baghouses at all times.

Permit Conditions 3.5.2 requires that the Permittee shall only fire Natural Gas or propane. This ensures compliance with Georgia Rule 391-3-1-.02(2)(g).

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

A. General Testing Requirements

The Permit Condition 4.1.1 specifies that a performance test may be required at anytime upon request by EPD to determine compliance with the Permit. Condition 4.1.2 requires a thirty-day written notice prior to any testing and the test methods for measuring emissions are listed in Condition 4.1.3.

B. Specific Testing Requirements

The initial performance tests required by 40 CFR 60.8 and the current Air Quality Permit have been completed for all existing equipment. This permit allows certain changes to be made to the facility without permit revision. These changes may include installing new equipment and replacing existing equipment. If these changes are made, a condition is present to require the initial performance test be performed in accordance with 40 CFR 60.8 and the applicable subpart.

V. Monitoring Requirements (with Associated Record Keeping and Reporting)

A. General Monitoring Requirements

Condition 5.1.1 requires that all monitors be operated continuously except during breakdowns and repairs. A repair or maintenance should be completed in an expeditious manner so downtime is minimized. All data should also be recorded during any calibration activity to help verify that the calibration was performed and completed properly.

B. Specific Monitoring Requirements

Calciner (CLN1), Calciner Cooler (CNC), Dryer No. 1 (DRY1) and Dryer No. 2 (DRY2), Kiln No. 1 (KLN1) and Kiln No. 2 (KLN2) are subject to 40CFR60 Subpart UUU and Georgia Rule (b) and (p) for limitations of particulate matter (PM) and visible emissions (opacity). Particulate matter emissions for the calciner are controlled by a baghouse. Subpart UUU requires that a Dryer or Calciner equipped with a dry control device, such as a baghouse, install a Continuous Opacity Monitoring System (COMS). The COMS was determined to be sufficient monitoring to assure compliance with the PM and opacity limitations and no other monitoring are required. Exceedances are as defined in Subpart UUU.

The remaining sources at the facility have baghouses for control of Particulate Matter (PM) emissions and are subject to the PM and Visible emissions (opacity) limitations of Georgia Rules (p), (b), and/or 40 CFR Part 60 Subpart OOO. Many of these processes are substantial sources of PM emissions, which are controlled by the larger baghouses installed at the facility, and are subject to the monitoring requirements of Condition 5.2.2 and 5.2.3 to reasonably assure applicable emissions limitations are not exceeded by specifying a Visible Emissions (VE) check each day of operation of the emissions units controlled by the baghouses and a baghouse preventable maintenance program. Corrective actions are required for visible emissions or for visible emissions, which exceed a specified opacity action level. Excursions, to be reported semiannually, are specified.

Dust collectors, bin vents and filter receivers controlling emissions from individual bins, wet screening operations, bucket elevators, belt and pneumatic conveyances, concentrator cooling towers and bagging operations are subject to PM and opacity limitations of NSPS OOO, but are exempted from previously detailed monitoring provisions due to little likelihood of significant Particulate Matter emissions.

Baghouses BH01, BH02, BH03(SB), BH BH04, BH05(SB), BH11, BH12, BH13(SB), BH14, BH15, BH16(SB), BH17, BH18(SB), BH19, BH28(SB), which receive gases from combustion sources are subject to the PM and opacity limitations of NSPS UUU. They are required to monitor (not record) temperature continuously and to record all incidents when the temperature exceeds temperature based on the maximum temperature that the bags can withstand. The specified excursions are to be reported semiannually. This is to ensure integrity of the baghouse which controls PM and opacity emissions.

VI. Other Record Keeping and Reporting Requirements

A. General Record Keeping and Reporting Requirements

The Permit contains 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 applicable requirements.

Permit Condition 6.1.4 requires that the Permittee shall submit a written report containing any excess emissions, exceedances, and/or excursions and any monitor malfunctions for each semiannual period ending June 30 and December 30 of each year.

Permit Condition 6.1.7 specifies the excess emissions, exceedances and excursion that the Permittee shall report whenever it happens.

B. Specific Record Keeping and Reporting Requirements

In accordance with 40 CFR, Part 60, "Standard of Performance for New Stationary Sources (NSPS)", the Permittee shall comply with the reporting and record keeping requirements of 40 CFR, Part 60, Subpart A and furnish the Division written notification.

As required by 40 CFR, Part 60, Subpart OOO, "Standard of Performance for Nonmetallic Mineral Processing Plants", the Permittee shall comply with the detailed reporting and record keeping and shall submit the required information listed in Permit Condition 6.2.2 about the existing Subpart OOO equipment being replaced and the replacement piece of equipment.

Permit Condition 6.2.3 requires the Permittee shall maintain the record of all actions taken to suppress fugitive dust from roads, storage piles, or any other source of fugitive dust.

No periodic monitoring is necessary to ensure compliance with Georgia Rule (g) because the source only fire natural gas and propane.

VII. Specific Requirements

A. Operational Flexibility

- Not applicable.

B. Alternative Requirements

- Not applicable.

C. Insignificant Activities

- refer to §4.10 of the Title V permit application

D. Temporary Sources

- Not applicable.

E. Short-Term Activities

- Not applicable

F. Compliance Schedule/Progress Reports

- Not applicable.

G. Emissions Trading

- Not applicable.

H. Acid Rain Requirements

- Not applicable.

I. Prevention of Accidental Releases

- Not applicable.

J. Stratospheric Ozone Protection Requirements

- Not applicable.

K. Pollution Prevention

- Not applicable.

L. 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.

Addendum to Narrative

Comments

1. Condition 3.1 describes the Calciner Cooler (CNC) as subject to NSPS UUU. Carbo Ceramics, Inc. believes that the Calciner Cooler is not subject to NSPS UUU and rather subject to NSPS OOO. This is due to the fact that NSPS UUU specifically pertains to Standards of Performance for Calciners and Dryers in Mineral Industries. A Calciner Cooler is neither a Calciner nor Dryer in itself and therefore not subject to NSPS UUU. However, Carbo Ceramics, Inc. does believe that the Calciner Cooler is subject to NSPS OOO – Standards of Performance for Nonmetallic Mineral Processing.

   Division's Response: Changes made.

2. Condition 5.2.1 states that the permittee shall install, calibrate, maintain, and operate a Continuous Monitoring System (COMS) on the outlet of the Calciner Baghouse (BH4, BH5 (standby (SB))) and the Claciner Cooler Baghouse (BH24, BH25 (SB)) – Carbo Ceramics, Inc. believes that the Calciner Cooler is not subject to NSPS UUU which requires the COMS to be installed. This is due to the fact that NSPS UUU specifically pertains to Standards of Performance for Calciners and Dryers in Mineral Industries. A Calciner Cooler is neither a Calciner nor Dryer in itself and therefore not subject to NSPS UUU. However, Carbo Ceramics, Inc. does believe that the Calciner Cooler is subject to NSPS OOO– Standards of Performance for Nonmetallic Mineral Processing.

   Division's Response: Changes made.

3. Condition 6.1.7.b.1 defines an exceedance as a six-minute average opacity, as recorded by the COMS installed on the outlet of baghouse 24, 25(SB) controlling emission form Calciner Cooler, that exceeds 10 percents – Again, Carbo Ceramics, Inc. believes that the Calciner Cooler is not subject to NSPS UUU which requires the COMS to be installed. This is due to the fact that NSPS UUU specifically pertains to Standards of Performance for Calciners and Dryers in Mineral Industries. A Calciner Cooler is neither a Calciner nor Dryer in itself and therefore not subject to NSPS UUU. However, Carbo Ceramics, Inc. does believe that the Calciner Cooler is subject to NSPS OOO– Standards of Performance for Nonmetallic Mineral Processing and therefore subject to an opacity of 7 percent.

   Division's Response: Changes made.

4. Condition 5.2.2 requires the permittee to perform daily visible emissions checks from all baghouses controlling emissions from sources listed in section 3.1 of the permit – Carbo Ceramics, Inc. would like this condition to specify the daily visible emissions checks to be once per 24 hr period.

   Division's Response: No changes made. Condition 5.2.2 requires visible emission checks once per day or portion of day of operation. Depending on when the individual baghouses are operated, the time between checks on baghouses could be longer than 24 hours

5. Condition 3.1's table has a row for DRY1 and DRY2. Spacing in these rows for the description is incorrect.

   Division's Response: Changes made.