Facility Name: **BASF Corporation, Toddville Plant**
City: Mcintyre
County: Wilkinson
AIRS #: 04-13-31900013

Application #: TV-269194/328811
Date Application Received: October 5, 2018
Permit No: 3295-319-0013-V-04-0

Program	Review Engineers	Review Managers
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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: BASF Corporation, Toddville Plant

2. Parent/Holding Company Name: BASF Corporation

3. Previous and/or Other Name(s): Engelhard Corporation-Toddville Plant, BASF Catalysts LLC – Toddville Plant

4. Facility Location

1277 Dedrick Road
McIntyre, Georgia 31054, (Wilkinson County)

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

The facility is located in an attainment area

B. Site Determination

There are no applicable issues with regard to the site determination. There are no other facilities which could be considered contiguous or adjacent and under common control.

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
3295-319-0013-V-03-0	April 9, 2014	Title V renewal.
Off-Permit Change	August 27, 2014	Company would like to change out several units in the #2 Bagging System.
Off-Permit Change	February 4, 2015	Adding a small screen controlled by an existing baghouse.
Off-Permit Change	February 16, 2016	Installation of 2 hoppers and 2 baghouses/dust collector.
Off-Permit Change	February 16, 2016	Requesting permission for operation of Spray Dryer 2D (4) for spray drying Ammonia dispersed products.
Off-Permit Change	July 22, 2016	A 3-month trial production exempted per 391-3-1-.03(6))i)3 and .03(10)(b)6.
Off-Permit Change	July 6, 2017	Replacing an existing bagger.

D. Process Description

1. SIC Codes(s)

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.

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)

The facility processes kaolin.

3. Overall Facility Process Description

BASF Corporation operates kaolin clay mining and processing operations in Middle Georgia. The Toddville plant is located in McIntyre, Georgia, which is in Wilkinson County. The Toddville Title V application includes the Daveyville plant because it is adjacent to the Toddville plant. The Toddville and Daveyville plants are comprised of various kaolin clay processing operations including wet processing (fractionation, leaching, filtration, magnet, and ozonation), drying, milling, intermediate and final product conveying and storage, bagging, and bulk loading. BASF Corporation operates three general mining operations in the Middle Georgia area. One is located in Washington County and two are located in Wilkinson County. The crude clay is mined out of the ground and hauled by trucks to blungers. The clay is dispersed and then degritted to remove residue. The dispersed slurry is then pumped six or more miles to the plant. The clay slurry is received from the mines and kept separate by the type of clay. During the wet processing stage, the clay can be centrifuged, delaminated, ozonated, floated, magnetically separated, and/or bleached. The clay is rotary-vacuum filtered to dewater the slurry. The dewatered slurry is spray dried. The Toddville plant has five spray dryers. The spray dryers burn natural gas with #2 fuel oil as a backup. The spray dryer dries the clay to about 1% moisture. A portion of the dried kaolin is added to dewatered slurry and shipped as high solids slurry. The remaining dried clay is either bagged, bulk loaded, or pulverized. The pulverizer is used to grind the clay to a particular particle size distribution before bagging or bulk loading. The dried clay is stored in silos prior to bagging or bulk loading operations. There are approximately 40 bins or silos in Daveyville and Toddville. The bagging operation consists of 50 or 55 pound bags. The bags are stacked on pallets to prepare them for shipment. There are two baggers in Toddville. The big bagging operation consists of one ton bags. There are three big bagging operations. There are four bulk loading facilities in Toddville, which can load railcars or trucks. There are

three boilers in Daveyville which are used for the rotary-vacuum filtration process. Another boiler is used to further dewater slurry.

4. Overall Process Flow Diagram

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

E. Regulatory Status

1. PSD/NSR

This facility has the potential to emit PM and PM10 each in excess of 250 tons per year which makes the facility a PSD major source as defined by 40 CFR 52.21. Condition Nos. 3.2.1, 3.2.2 and 3.2.3 contain PM and PM10 limits to avoid becoming subject to the PSD permit review requirement.

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_{10}	✓	✓		
$PM_{2.5}$	✓	✓		
SO_2	✓	✓		
VOC	✓			✓
NO_x	✓			✓
CO	✓			✓
TRS	n/a			
H_2S	n/a			
Individual HAP	✓			✓
Total HAPs	✓			✓

3. MACT Standards

The facility is not a major source for HAPs and is therefore considered an area source and not subject to any MACT standard. However, the facility's boilers, Toddville boiler, 8B, 8C and 8D (Source Codes 105, 104, 98 and 99) will be exempt from 40 CFR 63 Subpart JJJJJJ, "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources." The boilers use natural gas with fuel oil as a backup fuel and therefore are exempt under provision 63.11195 and the definition of a Gas-Fired Boiler under provision 63.11237.

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	No
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 did not indicate that they were/are out of compliance with any equipment-specific applicable rules and regulations in this application. There are no open enforcement cases for the facility in question.

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
Fuel Burning Equipment					
98	8D Boiler	391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	3.2.3, 3.2.4, 3.2.5, 3.2.9, 3.3.2, 3.4.2, 3.4.6, 3.4.7, 5.2.4, 6.1.7, 6.2.3, 6.2.5, 6.2.6, 6.2.7, 6.2.8 6.2.9, 6.2.10 6.2.11	None	N/A
99	8C Boiler	391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	3.2.3, 3.2.4, 3.2.5, 3.2.9, 3.3.2, 3.4.2, 3.4.6, 3.4.7, 5.2.4, 6.1.7, 6.2.3, 6.2.5, 6.2.6, 6.2.7, 6.2.8 6.2.9, 6.2.10 6.2.11	None	N/A
104	8B Boiler	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) 391-3-1-.02(2)(b)	3.2.5, 3.2.9, 3.3.2, 3.4.3, 3.4.5, 3.4.6, 5.2.4, 6.2.5, 6.2.7, 6.2.8	None	N/A
105	Toddville Boiler	391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	3.2.5, 3.2.9, 3.3.2, 3.4.2, 3.4.4, 3.4.6, 5.2.4, 6.2.5, 6.2.7, 6.2.8	None	N/A
Limestone Processing Mills and Pulverizers					
12	Limestone Mill #1	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2, 5.2.5, 5.2.6, 6.1.7	12C	Baghouse
100	Limestone Mill #2	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2, 5.2.5, 5.2.6, 6.1.7	100C	Baghouse
35	8C Limestone Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	35C	Baghouse
11	8A Limestone Silo	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	11C	Baghouse
24	8B Limestone Bin	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	24C	Baghouse
6	6A Pulverizer	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b)	3.2.8, 3.4.1, 3.4.5, 3.5.1, 3.5.2, 5.2.5, 5.2.6, 6.1.7	6C	Baghouse
7	6B Pulverizer	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b)	3.2.8, 3.4.1, 3.4.5, 3.5.1, 3.5.2, 5.2.5, 5.2.6, 6.1.7	7C	Baghouse
8	6C Pulverizer	NSPS OOO 391-3-1-.02(2)(p)1	3.3.1, 3.4.1, 3.5.1, 3.5.2, 5.2.5, 5.2.6, 5.2.7, 6.1.7, 6.2.1, 6.2.2	8C	Baghouse
23	#0 Silo	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	23C	Baghouse

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
20	P2 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	20C	Baghouse
21	P3 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	21C	Baghouse
101	Soda Ash Bin	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	101C	Baghouse
103	8C Tetra Bin	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	103C	Baghouse
Dryers					
1	2A Spray Dryer	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b) 391-3-1-.02(2)(g)	3.2.5, 3.4.1, 3.4.5, 3.4.6, 3.5.1, 3.5.2, 5.2.3, 5.2.5, 5.2.6, 6.1.7, 6.2.5, 6.2.8	1C	Baghouse
2	2B Spray Dryer	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b) 391-3-1-.02(2)(g)	3.2.5, 3.4.1, 3.4.5, 3.4.6, 3.5.1, 3.5.2, 5.2.3, 5.2.5, 5.2.6, 6.1.7, 6.2.5, 6.2.8	2C	Baghouse
96	2B Spray Dryer Belt Conveyor	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b)	3.2.2, 3.4.1, 3.4.5, 5.2.5, 5.2.6, 6.1.7	96C	Baghouse
3	2C Spray Dryer	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b) 391-3-1-.02(2)(g)	3.4.1, 3.4.5, 3.4.6, 3.5.1, 3.5.2, 5.2.3, 5.2.5, 5.2.6, 6.1.7, 6.2.5, 6.2.8	3C	Baghouse
75	2C Spray Dryer Conveyor Belt	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2, 5.2.5, 5.2.6, 6.1.7	75C	Baghouse
4	2D Spray Dryer	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b) 391-3-1-.02(2)(g)	3.2.5, 3.4.1, 3.4.5, 3.4.6, 3.5.1, 3.5.2, 5.2.3, 5.2.5, 5.2.6, 6.1.7, 6.2.5, 6.2.8	4C	Baghouse
76	2D Spray Dryer Conveyor Belt	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2, 5.2.5, 5.2.6, 6.1.7	76C	Baghouse
5	2F Spray Dryer	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b) 391-3-1-.02(2)(g)	3.2.1, 3.2.5, 3.4.1, 3.4.5, 3.4.6, 3.5.1, 3.5.2, 5.2.3, 5.2.5, 5.2.6, 6.1.7, 6.2.5, 6.2.8	5C	Baghouse
77	2F Spray Dryer Conveyor Belt	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2, 5.2.5, 5.2.6, 6.1.7	77C	Baghouse
9	Sargent Dryer	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b) 391-3-1-.02(2)(g)	3.4.1, 3.4.5, 3.4.6, 5.2.4, 6.1.7, 6.2.5, 6.2.8	None	N/A
87	Sargent Dryer L1 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	87C	Baghouse
88	Sargent Dryer L2 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	88C	Baghouse
22	P1 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	22C	Baghouse
81	#1 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	81C	Baghouse

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
58	#18 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	58C	Baghouse
59	#19 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	59C	Baghouse
60	#20 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	60C	Baghouse
61	#21 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	61C	Baghouse
62	#22 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	62C	Baghouse
63	#23 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	63C	Baghouse
64	#24 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	64C	Baghouse
Bagging and Loading					
40	#2A Big Bagger Product Receiver	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	40C	Baghouse
41	#2A Big Bagger	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.2.8, 3.4.1, 3.4.5, 3.5.1, 3.5.2	41C	Baghouse
42	#2A Big Bagger Bin	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	42C	Baghouse
33	#2C Big Bagger Product Receiver	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	33C	Baghouse
45	#2C Big Bagger Bin	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	45C	Baghouse
19	#2D Bagging Product Receiver	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	19C	Baghouse
48	#2D Bagger Bin	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	48C	Baghouse
92	2D Bagger	NSPS OOO 391-3-1-.02(2)(p)1	3.3.1, 3.4.1, 3.5.1, 3.5.2, 5.2.7, 6.2.1, 6.2.2	92C	Baghouse
93	2D Big Bagger	NSPS OOO 391-3-1-.02(2)(p)1	3.2.6, 3.2.7, 3.3.1, 3.4.1, 3.5.1, 3.5.2, 5.2.7, 6.2.1, 6.2.2	93C	Baghouse
31	2D Screen-Elevator Scavenger	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	31C	Baghouse
108	#6 Big Bagger -B Vacuum Receiver	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.2.8, 3.4.1, 3.4.5, 3.5.1, 3.5.2	108C	Baghouse
90	#6 Big Bagger Bin #1	NSPS OOO 391-3-1-.02(2)(p)1	3.3.1, 3.4.1, 3.5.1, 3.5.2, 5.2.7, 6.2.1, 6.2.2	90C	Baghouse
91	#6 Big Bagger #1	NSPS OOO 391-3-1-.02(2)(p)1	3.3.1, 3.4.1, 3.5.1, 3.5.2, 5.2.7, 6.2.1, 6.2.2	91C	Baghouse
109	#6 Big Bagger -A Vacuum Receiver	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.2.8, 3.4.1, 3.4.5, 3.5.1, 3.5.2	109C	Baghouse
110	Vacuum Clean-up	NSPS OOO 391-3-1-.02(2)(p)1	3.3.1, 3.4.1, 3.5.1, 3.5.2, 5.2.7, 6.2.1, 6.2.2	110C	Baghouse

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
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106	#6 Big Bagger Bin #2	NSPS OOO 391-3-1-.02(2)(p)1	3.3.1, 3.4.1, 3.5.1, 3.5.2, 5.2.7, 6.2.1, 6.2.2	106C	Baghouse
107	#6 Big Bagger -B	NSPS OOO 391-3-1-.02(2)(p)1	3.3.1, 3.4.1, 3.5.1, 3.5.2, 5.2.7, 6.2.1, 6.2.2	107C	Baghouse
13	6A Bagger Product Receiver #1	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	13C	Baghouse
14	6A Bagger Product Receiver #2	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	14C	Baghouse
53	6A Bagger Bin Vent #1	NSPS OOO 391-3-1-.02(2)(p)1	3.3.1, 3.4.1, 3.5.1, 3.5.2, 5.2.7, 6.2.1, 6.2.2	53C	Baghouse
54	6A Bagger Bin Vent #2	NSPS OOO 391-3-1-.02(2)(p)1	3.3.1, 3.4.1, 3.5.1, 3.5.2, 5.2.7, 6.2.1, 6.2.2	54C	Baghouse
52	#6 Bagger	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.2.8, 3.4.1, 3.4.5, 3.5.1, 3.5.2	52C	Baghouse
71	6A Bagging conveying Scavenger	NSPS OOO 391-3-1-.02(2)(p)1	3.3.1, 3.4.1, 3.5.1, 3.5.2, 5.2.7, 6.2.1, 6.2.2	71C	Baghouse
72	Plant 6 Housekeeping Scavenger	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.2.2, 3.2.6, 3.2.7, 3.4.1, 3.4.5, 3.5.1, 3.5.2	72C	Baghouse
82	#2 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	82C	Baghouse
83	#3 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	83C	Baghouse
84	#4 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	84C	Baghouse
85	#5 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	85C	Baghouse
86	#6 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	86C	Baghouse
97	2A Bulk Loading Conveyor Belt	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.2.2, 3.4.1, 3.4.5, 3.5.1, 3.5.2	97C	Baghouse
49	2A Bulk Loading	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b)	3.2.8, 3.4.1, 3.4.5, 3.5.1, 3.5.2	49C	Baghouse
65	#25 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	65C	Baghouse
66	#26 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	66C	Baghouse
67	#27 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	67C	Baghouse
68	#28 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	68C	Baghouse
69	#29 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	69C	Baghouse
70	#30 Silo	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	70C	Baghouse
46	2D Bulk Loading	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b)	3.2.8, 3.4.1, 3.4.5, 3.5.1, 3.5.2	46C	Baghouse

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
78	100 Ton Bin	NSPS OOO 391-3-1-.02(2)(p)1	3.3.1, 3.4.1, 3.5.1, 3.5.2, 5.2.7, 6.2.1, 6.2.2	78C	Baghouse
26	2A Cowles Big Bag Receiver	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	26C	Baghouse
25	2A Cowles Product Receiver	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	25C	Baghouse
16	2A Cowles Bin	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	16C	Baghouse
17	2B Cowles Bin	391-3-1-.02(2)(p)2 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	17C	Baghouse
18	2C Cowles Bin	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	18C	Baghouse
55	A93 Bin	NSPS OOO 391-3-1-.02(2)(p)1	3.3.1, 3.4.1, 3.5.1, 3.5.2, 5.2.7, 6.2.1, 6.2.2	55C	Baghouse
56	A93 Bulk Loading Bin	NSPS OOO 391-3-1-.02(2)(p)1	3.3.1, 3.4.1, 3.5.1, 3.5.2, 5.2.7, 6.2.1, 6.2.2	56C	Baghouse
73	Fluid Catalyst Bin	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	73C	Baghouse
74	Fluid Catalyst Bulk Loading	391-3-1-.02(2)(p)1 391-3-1-.02(2)(b)	3.4.1, 3.4.5, 3.5.1, 3.5.2	74C	Baghouse

B. Equipment & Rule Applicability

Emission and Operating Caps:

Limits have been placed on several stacks in order to make sure the facility remains below the PSD limit. Although the company does not have the potential to emit Sulfur Dioxide (SO_2), PSD limits have been placed in Conditions 3.2.4 and 3.2.5. These conditions will insure that the SO_2 emissions remain below the PSD threshold even when there is complete fuel oil use. The following limits have been instituted in order to avoid PSD review:

Source Code	PM Limit	SO_2 Limit
5	5.6 lb/hr	
72, 93, 96, 97	0.02 gr/dscf	
98 and 99	0.105 lb/MMBtu	< 40 tons

Boilers 8C and 8D (Source Codes 98 and 99) have the ability to burn fuel oil as a back-up fuel. Limits are placed on the type of fuel oil fired in order to avoid PSD review. Other limits placed on the facility include a VE limit of 7% and a fugitive emissions limit of 10% from Source Codes 72 and 93. The facility is able to reduce fees by limiting PM stack emissions to 0.04 gr/dscf from sources SC 6, 7, 41, 49, 52, 108, and 109.

Rules and Regulations Assessment:

Federal Rules:

Although the boilers on site are exempt from 40 CFR 63 Subpart JJJJJJ," National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources" they must comply with its provisions in order to maintain an exemption status. As an area source facility with boilers that primarily burn natural gas with fuel oil as a backup, the boilers must comply with the restrictions set in Condition 3.2.9.

The facility must comply with the provisions of 40 CFR 60 Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants." On April 28, 2009, NSPS OOO was amended to include stricter limits. As listed in Condition 3.3.2, new equipment such as crushers will be limited to 12% opacity of fugitives, while screens, conveyor points, bins, and all other applicable sources will be limited to 7% fugitive visible emissions. Method 9 visible emissions testing will be required. A PM limit is set at 0.0032 g/dscm (0.014 gr/dscf). Special notification and record keeping is also required. Equipment constructed, modified, or reconstructed before April 22, 2008 but after August 31, 1983 will remain subject to the original NSPS OOO conditions in the permit.

40 CFR Part 60, Subpart UUU – "Standards of Performance for Calciners and Dryers in Mineral Industries" applies to each dryer and calciner at a mineral processing plant which commences construction, modification, or reconstruction after April 23, 1986. The Spray Dryers (1,2,3,4, and 5) and Apron Dryer (9) meet the definition of a dryer under this Subpart. However, all of them are exempt as none of them have been constructed or modified after April 23, 1986.

NSPS Subpart Dc applies to steam generating units that were constructed, modified, or reconstructed after June 9, 1989 and that have a maximum design heat input capacity of greater than or equal to 10 MMBtu/hr, but less than 100 MMBtu/hr. The facility operates 8D Boiler (ID No. 98), 8C Boiler (ID No. 99), 8B Boiler (ID No. 104), and Toddville Boiler (ID No. 105) that meet the definition of steam generating unit. 8D Boiler, 8C Boiler, and 8B Boiler are not subject to NSPS Subpart Dc as they were installed prior to June 9, 1989. The Toddville Boiler is not subject to NSPS Subpart Dc as it has a heat input capacity less than 10 MMBtu/hr. Process dryers and air handling units do not meet the definition of steam generating unit as they are directly-fired and do not heat any heat transfer medium. No units at the Toddville facility are subject to NSPS Subpart Dc.

State Rules:

Unless there is a more stringent regulation, the facility cannot allow from each source, PM that exceeds the amounts calculated in the following equation for State Rule 391-1-.02(2)(e).

a. For equipment in operation or extensively altered **after** July 2, 1968:

   i. $E = 4.1P^{0.67}$, for process input weight rate up to and including 30 tons per hour;

   ii. $E = 55P0.11 - 40$, for process input weight rate in excess of 30 tons per hour.

   Where:

   E = allowable emission rate in pounds per hour;

   P = process input weight rate in tons per hour.

According to State Rule 391-1-.02(2)(b), visible emissions from each source cannot be equal to or greater than 40%. All fuel burning sources are subject to State Rule 391-1-.02(2)(g) and must use fuel that contains less than 2.5% sulfur, by weight. All fuel-burning equipment must comply with State Rule (d). The boilers are subject to State Rule 391-1-.02(2)(d) with each boiler having different requirements depending on the size and age of the boiler.

C. Permit Conditions

Conditions 3.2.1, 3.2.2, and 3.2.3 contains PM stack limits for the listed emission sources.

Condition 3.2.4 limits total uncontrolled emissions of sulfur dioxide from fuel oil combustion to 40 tons during any 12 consecutive months for Boilers 8C and 8D.

Condition 3.2.5 requires all fuel oil fired to meet the specifications for fuel oils number 1 and 2.

Conditions 3.2.6 and 3.2.7 imposes VE limits and fugitive emission limits on emission units with Source Codes 72 and 93 respectively.

Condition 3.2.8 limit stack emissions for particulate matter in excess of 0.04 grains/dscf from Source Codes 6, 7, 41, 46, 49, 52, 108 and 109.

Condition 3.2.9 requires the Permittee to only fire natural gas, propane, and fuel oil in Toddville, 8B, 8C and 8D Boilers. This is a 40 CFR 63 Subpart JJJJJJ avoidance condition.

Condition 3.3.1 contains the provisions of 40 CFR 60 Subpart OOO.

Condition 3.4.1 contains the provisions of Georgia State Rule (p) regarding particulate matters emissions for kaolin and fuller's earth processes.

Conditions 3.4.2, 3.4.3, 3.4.4, and 3.4.7 contains the provisions of Georgia State Rule (d) regarding visible emissions and particulate matters emissions for facility boilers.

Condition 3.4.5 contains the provisions of Georgia State Rule (b) which limits visible emissions opacity from any process equipment to 40 percent.

Condition 3.4.6 contains the provisions of Georgia State Rule (g) which limits sulfur content by weight in fuel used by the facility.

Conditions 3.5.1 and 3.5.2 requires the Permittee to operate facility baghouses at all times and to keep adequate inventory of replacement filter bags onsite.

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.

B. Specific Testing Requirements

Condition 4.2.1 requires any newly constructed or modified NSPS equipment to be tested between 60 and 180 days of startup and a report submitted to the Division. Sources at the facilities that do not have water sprays that control fugitive emissions must repeat the performance test required in Condition 4.2.2 within 5 years of the original test.

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

Condition 5.2.1 contains the provisions and procedure for visible emission checks regarding facility baghouses.

Condition 5.2.2 contains the provisions of a Preventive Maintenance Program for the facility baghouses that the Permittee shall implement.

Condition 5.2.3 requires the Permittee to measure inlet temperature for baghouses that receive gases from sources that dry or calcine.

Condition 5.2.4 requires the Permittee to inspect all emission points from emission units with no air pollution control device (APCD). The inspection shall be conducted by a walk through of the facility.

Conditions 5.2.5 and 5.2.6 contains the CAM provisions for the facility. This will be explained in detail in section C below.

Condition 5.2.7 contains the monitoring provisions of 40 CFR 60 Subpart OOO.

C. Compliance Assurance Monitoring (CAM)

BASF Corporation – Daveyville/Toddville Plant operates several 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-controlled potential emissions for the pollutant is greater than the major source threshold.
The frequency of data collection under Part 64 depends on whether the controlled potential to emit exceeds the major source threshold (i.e., whether the PSEU is a large PSEU). A large PSEU required continuous monitoring while a PSEU that is not classified as large requires monitoring at least once per 24-hour period. The information for CAM units at the facility is summarized below.

Emission Unit(s) ID	Emission Unit(s)	Control Device(s)	Pollutant	Potential Emissions (tpy) Uncontrolled	Large PSEU(s)?
SC1	2A Spray Dryer	Baghouse	PM	>100	No
SC2	2B Spray Dryer	Baghouse	PM	>100	No
SC3	2C Spray Dryer	Baghouse	PM	>100	No
SC4	2D Spray Dryer	Baghouse	PM	>100	No
SC5	2F Spray Dryer	Baghouse	PM	>100	No
SC6	6A Pulverizer	Baghouse	PM	>100	No

SC7	6B Pulverizer	Baghouse	PM	>100	No
SC8	6C Pulverizer	Baghouse	PM	>100	No
SC12	Limestone Mill #1	Baghouse	PM	>100	No
SC75	2C Spray Dryer Conveyor Belt	Baghouse	PM	>100	No
SC76	2D Spray Dryer Conveyor Belt	Baghouse	PM	>100	No
SC77	2F Spray Dryer Conveyor Belt	Baghouse	PM	>100	No
SC96	2B Spray Dryer Conveyor Belt	Baghouse	PM	>100	No
SC100	Limestone Mill #2	Baghouse	PM	>100	No

The facility is not requesting any changes to the existing CAM plan, and as such, no revised CAM plan is submitted for this Title-V renewal. The permitting conditions relating to CAM will remain as is. The facility will monitor visible emissions, maintenance inspection, and inlet gas temperature for sources controlled by baghouses to ensure continuous compliance with Georgia Air Quality Rules (p) and (b), 40 CFR 60 Subpart OOO. EPD had agreed with the terms specified in their CAM plan of which the performance criteria for each of the baghouses are contained in Condition Nos. 5.2.5 and 5.2.6 of the current Permit.

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 semiannual basis.

B. Specific Record Keeping and Reporting Requirements

Condition 6.2.1 contains the notification requirements for initial/modification startup of NSPS sources.

Condition 6.2.2 contains notification, reporting, and recordkeeping requirements of 40 CFR 60 Subpart OOO.

Condition 6.2.3 contains reporting requirements for fuel records according to Condition 3.2.4.

Condition 6.2.4 requires the Permittee to maintain a record of all actions undertaken to suppress fugitive dust.

Condition 6.2.5 requires the Permittee to report fuel oil that was combusted during a semiannual period.

Condition 6.2.6 contains semiannual reporting requirements for SO2 emissions from 8C and 8D boilers.

Condition 6.2.7 requires the Permittee to keep written record of fuel oil firings in Toddville, 8B, 8C and 8D Boilers.

Condition 6.2.8 contains recordkeeping provisions related to verifying that each shipment of fuel oil received complies with the specifications for fuel oil numbers 1 and 2.

Condition 6.2.9 requires the Permittee to keep monthly records of fuel oil burned in 8C and/or 8D Boilers.

Condition 6.2.10 contains the equation used to calculate SO_2 emissions from 8C and 8D boilers.

Condition 6.2.11 requires the Permittee to record the 12-consecutive month total SO_2 emissions from 8C and 8D Boilers using the equation in Condition 6.2.10.

VII. Specific Requirements

A. Operational Flexibility

- None

B. Alternative Requirements

- None

C. Insignificant Activities

See Permit Application on GEOS website.
See Attachment B of the permit

D. Temporary Sources

- None applicable.

E. Short-Term Activities

- None applicable.

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

The 30-day public review started on month day, year and ended on month day, year. Comments were/were not received by the Division.

//If comments were received, state the commenter, the date the comments were received in the above paragraph. All explanations of any changes should be addressed below.//