

Facility Name: **C. E. Minerals Plant 6**

City: Andersonville

County: Sumter

AIRS #: 04-13-261-00070

Application #: 15050

Date SIP Application Received: February 17, 2004 (Revised on August 20,2004)

Date Title V Application Received: February 17, 2004 (Revised on August 20,2004)

Permit No: 3291-261-0070-V-01-1

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TOXICS	n/a	n/a

Introduction

This narrative is being provided to assist the reader in understanding the content of the referenced SIP permit to construct and draft operating permit amendment. Complex issues and unusual items are explained in simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being issued pursuant to: (1) Sections 391-3-1-.03(1) and 391-3-1-.03(10) of the Georgia Rules for Air Quality Control, (2) Part 70 of Chapter I of Title 40 of the Code of Federal Regulations, and (3) Title V of the Clean Air Act Amendments of 1990. The following narrative is designed to accompany the draft permit and is presented in the same general order as the permit. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public comment period and EPA review process will be described in an addendum to this narrative.

I. Facility Description

A. Existing Permits

Table 1: Current Title V Permit and Amendments

Permit/Amendment Number	Date of Issuance	Comments	
		Yes	No
3291-261-0070-V-01-0	March 18, 2003		✓

Table 2: Comments on Specific Permits

Permit Number	Comments
None	

B. Regulatory Status

1. PSD/NSR/RACT

Plant 1, Plant 2, and Plant 6 (Formerly TSNS Grit Plant) are together considered to be a major source under part 70 and PSD, having the potential to emit PM, PM-10 (PM less than 10 microns in diameter), NO_x (nitrogen oxides), and SO₂ (sulfur dioxides) greater than 250 tpy. This PSD major source is not one of the 28 named source categories under PSD. Plant 6 has taken limits to avoid this modification being subject to PSD review.

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	✓	✓		
PM ₁₀	✓	✓		
SO ₂	✓	✓		
VOC	✓			✓
NO _x	✓	✓		
CO	✓			✓
TRS				
H ₂ S				
Individual HAP				
Total HAPs				

II. Proposed Modification

A. Description of Modification

This application is submitted for a facility name change and a reconfiguration of equipment to process non-metallic minerals. The plant was designed primarily to process fused white alumina, a metallic mineral. The plant comprises a series of crushing and screening operations followed by packaging of products.

C. E. Minerals now proposes to utilize the equipment to produce Mulcoa grade products. To process the Mulcoa products, C. E. Minerals proposes to reconfigure the equipment in the existing Grit Plant and rename it Plant 6. Using the same storage bins, screens, crushers, and associated equipment, two separate process lines will be formed. These will be designated the “East Circuit” and the “West Circuit”. Each Circuit will be used to process a different grade of Mulcoa.

The PM emissions from the East Circuit will be controlled by existing baghouse A1 (Formerly BH01). The PM emissions from the West Circuit will be controlled by existing baghouse A4 (Formerly BH02) and a third existing, but not previously utilized baghouse A3. A total of three baghouses will be used to control the PM emissions from Plant 6.

B. Emissions Change

The PM emissions from Plant 6 have been estimated using the existing grain loading information for the baghouses. C. E. Minerals proposes an exit grain loading of 0.022 gr/dscf for each baghouse and an annual operating hour limit of 5,100 hour. Based on the design flow rates and the proposed grain loading, the total PM emissions from Plant 6 are estimated as 14.30 tons per year. The basis for this emissions total is summarized below:

PM emissions from Plant6

Baghouse ID	Flow Rate (acfm)	PM Emission Limit (gr/dscf)	Operating hours hr/year	PM Emissions (lbs/hr)	PM Emissions (TPY)
A1	14,500	0.022	5,100	2.7	7.0
A3	6,800	0.022	5,100	1.3	3.3
A4	8,400	0.022	5,100	1.6	4.0
Total				5.60	14.30

C. PSD/NSR Applicability

The facility is a major source under PSD regulation and has proposed an exit grain loading of 0.022 gr/dscf for each baghouse and operating hour limit of 5,100 for the entire facility. Based on the design flow rates and the proposed grain loading, the total PM emissions from Plant 6 sources are estimated as 14.3 tons per year, which is below the 15.0 tpy PSD significance threshold for PM₁₀.

III. Facility Wide Requirements

There are no facility wide requirements associated with this application.

IV. Regulated Equipment Requirements

A. Brief Process Description

The facility is proposing to utilize the existing process equipment to process Mulcoa grade products.

B. 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 (Stack ID No.)
CS02	East Crushing, Screening and Packaging System	40 CFR Part 60 LL 40 CFR Part 60 OOO 391-3-1-.02(2)(p) 391-3-1-.02(2)(b)	2.2.1, 3.2.1, 3.3.1, 3.3.2, 3.4.1, 3.4.2, 3.5.1, 3.5.2, 4.2.1, 4.2.2, 5.2.1, 5.2.2, 5.2.3, 5.2.5, 6.1.7, 6.1.9, 6.2.1	A1	Baghouse (ST01)
CS03	West Crushing, and Screening System	40 CFR Part 60 LL 40 CFR Part 60 OOO 391-3-1-.02(2)(p) 391-3-1-.02(2)(b)	2.2.1, 3.2.1, 3.3.1, 3.3.2, 3.4.1, 3.4.2, 3.5.1, 3.5.2, 4.2.1, 4.2.2, 5.2.1, 5.2.2, 5.2.3, 5.2.5, 6.1.7, 6.1.9, 6.2.1	A4	Baghouse (ST02)
PS01	West Packaging System	40 CFR Part 60 LL 40 CFR Part 60 OOO 391-3-1-.02(2)(p) 391-3-1-.02(2)(b)	2.2.1, 3.2.1, 3.3.1, 3.3.2, 3.4.1, 3.4.2, 3.5.1, 3.5.2, 4.2.1, 4.2.2, 5.2.1, 5.2.2, 5.2.3, 5.2.5, 6.1.7, 6.1.9, 6.2.1	A3	Baghouse (ST03)
PM03	Rail Car Loading System	40 CFR Part 60 LL 40 CFR Part 60 OOO 391-3-1-.02(2)(p) 391-3-1-.02(2)(b)	2.2.1, 3.2.1, 3.3.1, 3.3.2, 3.4.1, 3.4.2, 3.5.1, 3.5.2, 4.2.1, 5.2.1, 5.2.2, 5.2.5, 6.1.7, 6.2.1	None	None

C. 1

Emission and Operating Caps –

Condition No. 3.2.1 was modified to establish a limit to ensure that the PM/PM₁₀ emissions from Plant 6 does not equal or exceed 15/25 tpy to avoid being a Major Modification as defined by PSD.

Applicable Rules and Regulations

The current permitted operations involve processing of metallic mineral aggregates, which is subject to 40 CFR Part 60, Subpart LL, "Standards of Performance for Metallic Mineral Processing Plants". Following the proposed changes, Plant 6 will be associated with processing of nonmetallic minerals, which will be subject to 40 CFR Part 60, Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants". Condition No. 3.3.2 is added to the permit without removing Subpart LL as an applicable requirement, such that metallic mineral aggregates can be processed in the future at Plant 6, if necessary, without requiring another operating permit revision.

Georgia Rule 391-3-1-.02(2)(p) "Particulate Emissions from Kaolin and Fullers Earth Processes." now applies to all of the processing equipment at this facility. Rule (p) established by Condition 3.4.1

Ga. Rule (b) "Visible Emissions" applies to all sources when no more stringent regulation applies. Visible emissions are limited by this rule to less than 40% opacity. Rule (b) is established by Condition 3.4.2.

D. Compliance Status

The facility is operating in compliance with the existing permit conditions.

E. Operational Flexibility

The company did not request any alternate operating scenarios for any of its equipment or processes.

F. Permit Conditions

- Condition No. 3.2.1 establishes limits to ensure that the C. E. Minerals Plant 6 expansion is not a Major Modification as defined by PSD. More restrictive PM emission limits have been set to ensure that the project does not have a potential increase that would equal or exceed 15 tons/yr of PM₁₀. All three baghouses will be limited to 14.3 tons/yr of PM. The limits have been set on a concentration rate basis 0.022 grains/dscf for each stack and 5100 operating hour limit, which should be readily achievable using baghouse type control technology.
- Condition No. 3.3.2 limits PM and visible emissions from equipment according to the NSPS requirements of the 40 CFR Part 60 Subpart OOO "New Source Performance Standard for nonmetallic Mineral Processing Facilities."
- Condition No. 3.4.1 establishes requirements for Georgia Rule (p).
- Condition No. 3.4.2 establishes requirements for Georgia Rule (b).

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

Condition 4.2.2 is added to require the performance test in accordance with the provisions of 40 CFR 60.8. The performance testing is for visible emissions and particulate matter. The test will also be used to determine compliance with the emission limits for PSD avoidance.

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

Condition Nos. 5.2.1, 5.2.2 and 5.2.3 are modified to include the new baghouse.

VII. Other Record Keeping and Reporting Requirements

Condition 6.1.9 is added to require record keeping and reporting of operating hours.

VIII. Specific Requirements

A. Operational Flexibility

Operational flexibility does not need to be incorporated into this Title V Permit modification. The applicant did not include any alternative operating scenarios in their Title V permit modification application.

B. Alternative Requirements

There are no alternative requirements that need to be incorporated into this Title V permit modification.

C. Insignificant Activities

The permittee did not include any additional insignificant activities in their Title V permit modification application.

D. Temporary Sources

The permittee did not request to operate any temporary sources in their Title V permit modification application.

E. Short-Term Activities

The permittee did not report any short term activities in their Title V permit modification application.

F. Compliance Schedule/Progress Reports

None applicable

G. Emissions Trading

None needed in this modification.

H. Acid Rain Requirements

None applicable

I. Prevention of Accidental Releases

None needed in this modification.

J. Stratospheric Ozone Protection Requirements

None applicable

K. Pollution Prevention

There are no pollution prevention provisions incorporated into this Title V permit modification application.

L. Specific Conditions

None

Addendum to Narrative

EPD issued draft Title V Permit 3291-261-0070-V-01-1 for C-E Minerals Plant 6 in Andersonville, Georgia on September 9, 2004. The public notice for this permit was published in The Americus Time Recorder on September 24 2004. The public comment period expired October 24, 2004. No comments were received