

Facility Name: **C-E Minerals Plant 2**
 City: Andersonville
 County: Sumter County
 AIRS #: 04-13-261-0047

Application #: TV-16080
 Date Application Received: March 4, 2005
 Date of Draft Permit: October 2, 2006
 Permit No: 3255-261-0047-V-04-7

Program	Review Engineers	Review Managers
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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 in 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 C-E Minerals Plant 2 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

The facility utilizes equipment to process Mulcoa grade products.

A. Existing Permits

Table 1 below lists the current Title V permit, administrative amendments, minor modifications, significant modifications, and 502(b)(10) changes. Comments are listed in Table 2 below.

Table 1: Permit and Date Issued

Permit/Amendment Number	Date of Issuance
3255-261-0047-V-04-0	December 19, 2002
3255-261-0047-V-04-1	October 20, 2004
3255-261-0047-V-04-2	March 9, 2005
3255-261-0047-V-04-3	January 19, 2005
3255-261-0047-V-04-4	May 16, 2005
3255-261-0047-V-04-5	August 8, 2005
3255-261-0047-V-04-6	January 30, 2006

Table 2: Comments on Specific Permits

Permit Number	Comments
3255-261-0047-V-04-0	Initial Title V Operating permit
3255-261-0047-V-04-1	Permit Amendment to resolve appeal of initial Title V operating permit
3255-261-0047-V-04-2	Retro-active PSD permit amendment for relaxation of PSD avoidance limits on Emission unit ID Nos. BC13, IC40, and IC43.
3255-261-0047-V-04-3	Section 502(b)(10) change for additional process equipment and the use of silane solution
3255-261-0047-V-04-4	Removal of hours of operation limitation for the IC Plant Jaw Crusher (I10), Barmac Crushing Circuit (I12), and Sizing and Bagging Operation (I13), the Rotary Dryer (BD2), Loading Chute (BD5) and increase of PM emissions for Barmac Crushing Circuit (I12) from 0.40 lbs/hr to 1.0 lbs/hr. Condition No. 3.2.2 is amended to delete applicability of limitations on the hours of operation for Emission Unit ID No. I10, I12, I13, BD2 and BD5 and authorize PM emissions increase. Condition Nos. 6.1.7 and 6.2.3 are amended accordingly. Condition 4.2.2 is added to require PM emission testing.
3255-261-0047-V-04-5	The facility was emitting greater than 10 tpy of an individual HAP, therefore, this limit needs to be removed. The facility has filed application No. 16066 to modify Condition No. 3.2.8 from a facility-wide HAP limitation to a HAP limitation on Emission Units associated with the silane project.
3255-261-0047-V-04-6	The increase of the SO ₂ emissions limitation in Condition No. 3.2.1 for Kilns 1K, 2K, 3K, 4K, and 5K from 80 pounds per hour to 116 pounds per

	hour. Modification of General Record keeping Requirements Condition No. 6.1.7. Changes to permit limits and record keeping shall occur upon completion of stack height modifications.
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B. Regulatory Status

PSD/NSR/RACT

Plant 1, Plant 2 and Plant 6 are considered to be part of the same site, which is a major source under PSD because its potential emissions of PM, PM₁₀, NO_x, and SO₂ are greater than 250 tpy (it is not one of the 28 named source categories under PSD).

Roller Mill No. 3 was installed as part of a permit issued November 23, 1993. To avoid PSD, the permit limits hours of operation to 5,600 hours per year and PM to 5.3 lbs./hr.. The potential PM emissions were 14.84 tons per year for the Roller Mill No. 3. There were no other modifications activities associated with this project, and the potential emissions have remained below the major source thresholds. A new limit of 3.28 lbs./hr will allow the hours of operation limit to be removed while assuring the potential PM emissions remain below the Major source threshold. In particular, the new potential PM emissions will be 14.37 tons per year. Roller Mill No. 3 will also be limited to burning natural gas or distillate oil only to assure products of combustion remain below major source threshold as follows:

Pollutant	Potential to Emit	Major Source Threshold
NO _x	7.47 tons/year	40 tons/year
CO	4.77 tons/year	100 tons/year
SO ₂	28.3 tons/year	40 tons/year
VOC	.31 tons/year	40 tons/year

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	No			
H ₂ S	No			
Individual HAP	Yes	✓		

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
Total HAPs	Yes	✓		

C. Process Description of Modification

The company is requesting the modification of the PSD avoidance limits for Roller Mill RM3 (Emission Unit ID No. RM3). Condition No. 3.2.2 limits the hours of operation for RM3 to no more than 5,600 hours per year. The company submitted a PSD application for the Roller Mill RM3. However, an updated application was submitted in June 2006 requesting that a mass emission limitation of 3.28 pounds PM per hour be imposed on Roller Mill No. 3 in order to avoid a PSD review. Condition No. 3.2.9 is being added to ensure that the sulfur content of the fuel combusted in Roller Mill RM3 is limited to 0.5 percent, by weight, so the rescinding of the operational limits for Roller Mill RM3 does not trigger a PSD review. Condition Nos. 6.1.7b.x, 6.1.7d.i, and 6.2.3 are associated with tracking hours of operation for Roller Mill RM3 and will be deleted. Condition No. 6.2.4 is being modified to reference Roller Mill RM3 in order to require that the fuel oil used in Roller Mill RM3 meet the sulfur content specified in Condition No. 3.2.9.

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

There are no additional or modified facility wide emission/operating limits associated with this significant modification.

B. Applicable Rules and Regulations

There are no additional or modified facility wide regulations associated with this significant modification.

C. Compliance Status

Per a review of the Division's files the facility is in compliance with all air quality regulations.

D. Operational Flexibility

The facility requested additional operational flexibility with this significant Title V permit modification in order to operate more hours per year.

E. Permit Conditions

None applicable.

III. Regulated Equipment Requirements**A. Brief Process Description**

The facility utilizes equipment to process Mulcoa grade products.

B. Equipment List for the Process and Emission Caps

The conditions listed under corresponding permit condition in Section 3.1 of the permit have been updated to reflect the new limits for RM3. Table 3.2.2 has also been updated with the new PM limit as follows:

Table 3.2.2

Source Code(s)	Emission Units	Control Device (Source Code)	Stack	PM Emission Rates Not To Exceed
I10	Jaw Crusher	Baghouse I11	30	1.02 lb/hr
I12	Barmac Crushing Circuit	Baghouse B12	27	1.00 lb/hr
I13	Sizing and Bagging	Baghouse B13	26	0.30 lb/hr
BD2	Rotary Dryer	Baghouse BD3	28	2.45 lb/hr
BD5	Loading Chute	Baghouse BD7	29	0.86 lb/hr
RM3	Roller Mill	Baghouse RMB3	25	3.28 lb/hr
K1 & K4	Cooler	Baghouse CBH4	14	3.12 lb/hr

C. Compliance Status

The Division files indicate that the facility is in compliance with all air quality regulations.

D. Operational Flexibility

The facility did not request any additional operational flexibility with this significant Title V permit modification, with the exception of changing the hours of operation.

E. Permit Conditions

Table 3.2.2 is modified by removing the operational limitations on the hours of operation and adjusting the PM emissions rates.

IV. Other Record Keeping and Reporting Requirements**A. General Record Keeping and Reporting Requirements**

1. Condition 6.1.7b.x, 6.1.7d.i, and 6.2.3 were deleted because there are no longer any limitations on hours of operation.

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

- A. Condition 4.2.3 is added to verify by testing that the new 3.28 lb./hr limit will be met.

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

- A. The permit already contains sufficient monitoring, recordkeeping and reporting requirements to assure ongoing compliance with the new limitation. Condition numbers 6.1.7.b.x, 6.1.7d.i, and 6.2.3 are deleted because the permit no longer contains limits restricting hours of operation.

VII. Specific Requirements

- A. Operational Flexibility

The facility has not requested any additional operational flexibility with this significant Title V permit modification.

- B. Alternative Requirements

None applicable per this significant Title V permit modification.

- C. Insignificant Activities

No insignificant activities are added as part of this significant Title V permit modification.

- D. Temporary Sources

None applicable per this significant Title V permit modification.

- E. Short-Term Activities

None applicable per this significant Title V permit modification.

- F. Compliance Schedule/Progress Reports

Not applicable.

- G. Emissions Trading

Not applicable.

- H. Acid Rain Requirements

Not applicable.

- I. Prevention of Accidental Releases

This significant Title V permit modification does not change the facility's applicability to Section 112(r) of the CAA.

J. Stratospheric Ozone Protection Requirements

This significant Title V permit modification does not change the facility's applicability to Title VI of the CAA.

K. Pollution Prevention

Not applicable.

L. Specific Conditions

None applicable.

Addendum to Narrative

The 30-day public review started on October 20, 2006 and ended on November 19, 2006. Comments were not received by the Division.