

INTEROFFICE MEMORANDUM

TO: Trina Vielhauer
FROM: Bruce Mitchell *RAM*
THRU: Scott Sheplak
SUBJECT: Title V Air Operation Permit Revision
PROPOSED Permit No.: 0530021-007-AV
Florida Crushed Stone Company
Brooksville Cement and Power Plants
DATE: May 20, 2003

The attached PROPOSED Permit (Title V Air Operation Permit Revision) is being issued to: 1) remove the Chemical Lime Plant operation from the Title V permit; 2) remove the beryllium limit and test method from the Power Plant Boiler in Subsection I; 3) revise the throughput rates for the Raw Meal Transfer (EU 004), the two Blend Storage Silos (EU 006), and the Kiln Feed Surge Bin (EU 007), to match the throughput rates (138 TPH) of their subsequent in-series processing emissions units; and, 4) incorporate the Operation Maintenance Plan (see Appendix O & M) pursuant to 40 CFR 63.1350(a). The particulate matter emissions from each of the subject emissions units are controlled with a baghouse. Even though no construction is required for this correction to the internal inconsistencies, an air construction permit was required (AC/AV dual Public Notice). In addition, the company intends to install a baghouse control system for the clinker transfer from the clinker cooler to the deep bucket conveyor (L-03), which conveys clinker to clinker storage; and, the air construction permit and the PROPOSED Permit contain the proposed changes and recognize the baghouse installation. Florida Crushed Stone Company's Brooksville Cement and Power Plants are located in Hernando County, Florida.

There were no comments received during the 30-day Public Comment period. Therefore, the DRAFT Permit becomes the PROPOSED Permit. It is recommended that the cover letter be signed.

TLV/sms/bm

Attachment

cc: Scott M. Sheplak, P.E.



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

PROPOSED Permit Electronic Posting Courtesy Notification

Florida Crushed Stone Company
Brooksville Cement and Power Plants
Facility ID No.: 0530021
Hernando County

Title V Air Operation Permit Revision
PROPOSED Permit No.: 0530021-007-AV

The electronic version of the PROPOSED permit was posted on the Division of Air Resources Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review on May 21, 2003.

USEPA's review period ends on the 45th day after the permit posting date. Day 45 is July 4, 2003. If an objection (veto) is received from USEPA, the permitting authority will provide a copy of the objection to the applicant.

Provided an objection is not received from USEPA, the PROPOSED permit will become a FINAL permit by operation of law on the 55th day after the permit posting date. Day 55 is July 14, 2003.

"More Protection, Less Process"

Printed on recycled paper.



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

May 21, 2003

CERTIFIED MAIL - Return Receipt Requested

Mr. Pat Venable, REM
Environmental Manager
Florida Crushed Stone Company
Post Office Box 1508
Brooksville, Florida 34605-1508

Re: Title V Air Operation Permit Revision
PROPOSED Permit No.: 0530021-007-AV
Florida Crushed Stone Company
Brooksville Cement and Power Plants

Dear Mr. Venable:

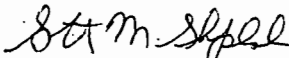
One copy of the "PROPOSED Determination" for the Florida Crushed Stone Company's Brooksville Cement and Power Plants located off Cobb Road 2 miles Northwest of Brooksville, Brooksville, Hernando County, is enclosed. This letter is only a courtesy to inform you that the DRAFT Permit has become a PROPOSED Permit.

An electronic version of this determination has been posted on the Division of Air Resources Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review. The web site address is:
"http://www.dep.state.fl.us/air/permitting/airpermits/AirSearch_ltd.asp"

Pursuant to Section 403.0872(6), Florida Statutes, if no objection to the PROPOSED Permit is made by the USEPA within 45 days, the PROPOSED Permit will become a FINAL Permit no later than 55 days after the date on which the PROPOSED Permit was mailed (posted) to USEPA. If USEPA has an objection to the PROPOSED Permit, the FINAL Permit will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn.

If you should have any questions, please contact Mr. Bruce Mitchell at 850/413-9198.

Sincerely,


Trina L. Vielhauer
Chief
Bureau of Air Regulation

TLV/sms/bm

Enclosures

copy furnished to:
Mr. Gerald Kissel, SWD
Mr. Steve Cullen, P.E., K&A
Ms. Dawn Durham, HCPD
USEPA, Region 4 (INTERNET E-mail Memorandum)

"More Protection, Less Process"

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Mr. Pat Venable, REM

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Mr. Pat Venable, REM
Street, Apt. No.; or PO Box No.
Post Office Box 1508
City, State, ZIP+4
Brooksville, Florida 34605-1508

PROPOSED Determination

Florida Crushed Stone Company

Brooksville Cement and Power Plants

**Title V Air Operation Permit Revision
PROPOSED Permit No.: 0530021-007-AV**

I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" to the Florida Crushed Stone Company's Brooksville Cement and Power Plants located off Cobb Road 2 miles Northwest of Brooksville, Brooksville, Hernando County was clerked on April 2, 2003. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" was published in the Hernando Times on April 11, 12 and 13, 2003. The DRAFT Title V Air Operation Permit Revision was available for public inspection at the Department's Southwest District office in Tampa and the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was received on April 30, 2003.

II. Public Comment(s).

No comments were received during the 30 (thirty) day public comment period. Since no comments were received, the DRAFT Permit becomes the PROPOSED Permit.

III. Conclusion.

Since there were no comments received during the Public Notice period, no changes were made to the DRAFT Permit and the permitting authority hereby issues the PROPOSED Permit.

STATEMENT OF BASIS

Florida Crushed Stone Company
Brooksville Cement and Power Plants
Facility ID No.: 0530021
Hernando County

Title V Air Operation Permit Revision
PROPOSED Permit No.: 0530021-007-AV

The initial Title V Air Operation Permit became effective October 18, 2000. This Title V Air Operation Permit Revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

The purpose of this revision is to 1) revise the throughput rates for the Raw Meal Transfer (EU 004), the two Blend Storage Silos (EU 006), and the Kiln Feed Surge Bin (EU 007) to match the throughput rates (138 TPH) of their subsequent in-series processing emissions units; 2) incorporate the Operation & Maintenance Plan (see Appendix O & M) pursuant to 40 CFR 63.1350(a); 3) remove the beryllium limit and test method from the Power Plant Boiler in Subsection I; and, 4) remove the subsection (Subsection G) for the Chemical Lime Plant Operation.

The particulate matter emissions from each of the subject emissions units are controlled with a baghouse. No construction is required for this correction to the internal inconsistencies. In addition, the company intends to install a baghouse control system for the clinker transfer from the clinker cooler to the deep bucket conveyor (L-03), which conveys clinker to clinker storage.

The following Specific Conditions are changed:

1. Specific Condition A.2. (0530021-002-AV).

FROM:

A.2. Permitted Capacity. The maximum process/transfer/throughput rates are:

E.U. ID No.	Brief Description	Maximum Rate
-004	Raw Meal Transfer with Baghouse	125 TPH
-006	Blending Silo with Baghouse	125 TPH
-007	Kiln Feed Surge Bin with Baghouse	125 TPH

TO:

A.2. Permitted Capacity. The maximum process/transfer/throughput rates are:

E.U. ID No.	Brief Description	Maximum Rate
-004	Raw Meal Transfer with Baghouse	138 TPH
-006	Blending Silo with Baghouse	138 TPH
-007	Kiln Feed Surge Bin with Baghouse	138 TPH

2. Specific Condition B.3. (0530021-002-AV).

FROM:

B.3. Permitted Capacity. The maximum process/transfer/throughput rates are:

E.U. ID No.	Brief Description	Maximum Rate
-004	Raw Meal Transfer with Baghouse	125 TPH
-006	Blending Silo with Baghouse	125 TPH
-007	Kiln Feed Surge Bin with Baghouse	125 TPH

STATEMENT OF BASIS

Florida Crushed Stone Company

Brooksville Cement and Power Plants

Title V Air Operation Permit Revision

PROPOSED Permit No.: 0530021-007-AV

Page 2 of 2

TO:

B.3. Permitted Capacity. The maximum process/transfer/throughput rates are:

E.U. ID No.	Brief Description	Maximum Rate
-004	Raw Meal Transfer with Baghouse	138 TPH
-006	Blending Silo with Baghouse	138 TPH
-007	Kiln Feed Surge Bin with Baghouse	138 TPH

3. Specific Conditions A.6 and B.7. (0530021-002-AV). There will be no changes in the allowable emission limits established in 0530021-002-AV.

4. The DRAFT Permit Revision also recognizes/contains the new baghouse control system associated with the process designated as the "Clinker Cooler Discharge" as follows:

New:

a. Subsection A. Description.

Clinker Cooler Discharge with Baghouse. This emissions unit is an activity of clinker transfer from the clinker cooler to the deep bucket conveyor (L-03), which conveys clinker to clinker storage. The PM emissions are controlled by a medium temperature baghouse fabric filter system. The stack height is 10 feet, with an exit diameter of 1.0 feet and an exit temperature of 250 °F. The actual volumetric flow rate is 5,100 acfm; and, the maximum dry standard flow rate is 3,717 dscfm.

b. Subsection A. Specific Conditions.

A.2. Permitted Capacity. The maximum process/transfer/throughput rates are:

E.U. ID No.	Brief Description	Maximum Rate
-xxx	Clinker Cooler Discharge with Baghouse	83 TPH

A.6. Particulate Matter. The maximum allowable particulate matter emissions are:

E.U. ID No.	Brief Description	Maximum Allowable Limits
-xxx	Clinker Cooler Discharge with Baghouse	0.015 gr/acfm; 0.66 lb/hr; 2.9 TPY

c. Subsection B. Description.

Clinker Cooler Discharge with Baghouse. This emissions unit is an activity of clinker transfer from the clinker cooler to the deep bucket conveyor (L-03), which conveys clinker to clinker storage. The PM emissions are controlled by a medium temperature baghouse fabric filter system. The stack height is 10 feet, with an exit diameter of 1.0 feet and an exit temperature of 250 °F. The actual volumetric flow rate is 5,100 acfm; and, the maximum dry standard flow rate is 3,717 dscfm.

d. Subsection B. Specific Conditions.

B.3. Permitted Capacity. The maximum process/transfer/throughput rates are:

E.U. ID No.	Brief Description	Maximum Rate
-xxx	Clinker Cooler Discharge with Baghouse	83 TPH

B.7. Particulate Matter. The maximum allowable particulate matter emissions are:

E.U. ID No.	Brief Description	Maximum Allowable Limits
-xxx	Clinker Cooler Discharge with Baghouse	0.015 gr/acfm; 0.66 lb/hr; 2.9 TPY

Based on the Title V permit applications received June 13, 1996, this facility is a major source of hazardous air pollutants (HAPs).

Appendix H-1: Permit History

Florida Crushed Stone Company
Brooksville Cement and Power Plants

PROPOSED Permit Revision No.: 0530021-007-AV
Facility ID No.: 0530021

E.U. ID No.	Description	Permit No.	Effective Date	Expiration Date	Project Type
All	Facility	0530021-002-AV	10/18/2000	10/18/2005	Initial
-004	Raw Meal Transfer with Baghouse	0530021-006-AC	05/19/2003	10/18/2005	Construction (mod.)
		0530021-007-AV	Pending ¹	10/18/2005	Revision
-006	Two Blend Storage Silos with Baghouse	0530021-006-AC	05/19/2003	10/18/2005	Construction (mod.)
		0530021-007-AV	Pending ¹	10/18/2005	Revision
-007	Kiln Feed Surge Bin with Baghouse	0530021-006-AC	05/19/2003	10/18/2005	Construction (mod.)
		0530021-007-AV	Pending ¹	10/18/2005	Revision
-xxx	Clinker Cooler Discharge with Baghouse (new)	0530021-007-AV	Pending ¹	10/18/2005	Revision

¹ ARMS day 55 from the date of posting the PROPOSED Permit for EPA review (see confirmation e-mail from Tallahassee) or the date that EPA confirms resolution of any objections.

Appendix I-1, List of Insignificant Emissions Units and/or Activities.

Florida Crushed Stone Company
Brooksville Cement and Power Plants

PROPOSED Permit Revision No.: 0530021-007-AV
Facility ID No.: 0530021

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, are exempt from the permitting requirements of Chapters 62-210 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rule 62-210.300(3)(a), F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

Brief Description of Emissions Units and/or Activities:

1. Facility-wide particulate matter fugitive emissions from miscellaneous activities, such as truck operations throughout the facility, wind erosion, etc.

Florida Crushed Stone Company
Brooksville Cement and Power Plants
Facility ID No.: 0530021
Hernando County

Title V Air Operation Permit Revision
PROPOSED Permit No.: 0530021-007-AV

Permitting Authority:

State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: 850/488-0114
Fax: 850/922-6979

Compliance Authority:

State of Florida
Department of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, Florida 33619-8218
Telephone: 813/744-6100
Fax: 813/744-6084

Florida Crushed Stone Company
Brooksville Cement and Power Plants

Title V Air Operation Permit Revision
PROPOSED Permit No.: 0530021-007-AV

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Permittee:

Florida Crushed Stone Company
Post Office Box 1508
Brooksville, Florida 34605-1508

PROPOSED Permit No.: 0530021-007-AV**Facility ID No.:** 0530021**SIC Nos.:** 32; 3241**Project:** Title V Air Operation Permit Revision

The purpose of this permit revision is to: 1) remove the Chemical Lime Plant operation from the Title V permit; 2) remove the beryllium limit and test method from the Power Plant Boiler in Subsection I; 3) revise the throughput rates for the Raw Meal Transfer (EU 004), the two Blend Storage Silos (EU 006), and the Kiln Feed Surge Bin (EU 007) to match the throughput rates (138 TPH) of their subsequent in-series processing emissions units; and, 4) incorporate the Operation Maintenance Plan (see Appendix O & M) pursuant to 40 CFR 63.1350(a). The PM emissions from each of the subject emissions units are controlled with a baghouse and no construction is required for this correction to the internal inconsistencies; in addition, the company intends to install a baghouse control system for the clinker transfer from the clinker cooler to the deep bucket conveyor (L-03), which conveys clinker to clinker storage. This facility is located off Cobb Road 2 miles Northwest of Brooksville, Brooksville, Hernando County. UTM Coordinates are: Zone 17; 360.00 km East; and, 3162.50 km North; Latitude: 28° 35' 00" North; and, Longitude: 82° 25' 53" West.

The permit revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-212 and 62-213. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:

Appendix I-1, List of Insignificant Emissions Units and/or Activities
APPENDIX TV-4, TITLE V CONDITIONS (version dated 02/12/02)
APPENDIX SS-1, STACK SAMPLING FACILITIES (dated 10/07/96)
TABLE 297.310-1, CALIBRATION SCHEDULE (dated 10/07/96)
Attachment "40 CFR 60, Subpart A"
Attachment "40 CFR 63, Subpart A"
FIGURE 1 - SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS
AND MONITORING SYSTEMS PERFORMANCE REPORT (40 CFR 60, July 1996)
Alternate Sampling Procedure: ASP Number 97-B-01
Attachment O & M (Operation & Maintenance Plan)

Permit Effective Date: October 18, 2000**Permit Revision Effective Date: (ARMS Day 55)****Permit Renewal Application Due Date: April 18, 2005****Permit Expiration Date: October 18, 2005**

Howard L. Rhodes, Director
Division of Air Resource Management

HLR/sms/bm

Section I. Facility Information.

Subsection A. Facility Description.

The facility is an integrated facility that includes a Portland cement manufacturing plant, a power plant, a lime manufacturing plant, and a coal yard. The power boiler is a coal fired unit that is allowed to generate a net delivered 150 MW. The cement kiln I, in-line kiln/raw mill and clinker cooler I share a common baghouse fabric filter system (for particulate matter emissions control) and stack with the power plant; and, dry limestone injection is used to control SO₂ emissions from the power boiler, which is then collected in the common baghouse fabric filter system. Waste heat from the kiln is used to provide heat to the raw mill and the kiln preheater, which is used to drive off moisture from the materials used for making clinker. All of the materials handling activities are controlled by fabric filter baghouse control systems, except for the Clinker Receiving/Handling System and the coal yard activities. For the Clinker Receiving/Handling System, the fugitive particulate matter emissions generated from the transfer of clinker from the receiving hopper to the belt conveyor are controlled using a Johnson-Marsh Dust Suppressant system, which uses a non-ionic wetting agent to enhance the wettability of the clinker. Water sprays or chemical wetting agents and stabilizers will be used at the coal receiving area, the coal storage area, and the coal transfer system to control fugitive particulate matter emissions and minimize visible emission. All fly ash handling systems (including transfer and silo storage) will be totally enclosed and vented (including pneumatic system exhaust) through fabric filters.

Based on the Title V permit applications received June 13, 1996, this facility is a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No./Facility ID No.	Brief Description
Brooksville Cement Plant I	
-001/D-75	Filter Dust Bin (was Pre-Mix Bin) with Baghouse
-002/D-67	Fly Ash/Equilibrium Catalyst Storage Silo with Baghouse
-004/F-14	Raw Meal Transfer with Baghouse
-006/G-12 (A & B)	Two Blend Silos with Baghouse
-007/H-15	Kiln Feed Surge Bin (was Kiln Feed Bin) with Baghouse
-008/S-04	Clinker Handling System
-xxx/L-03	Clinker Cooler Discharge with Baghouse
-010/L-06 & L-07	Clinker Storage Silo and Finish Mill Storage Silo with Baghouse
-011/L-08	Gypsum and Limestone Bins (was Clinker Silo) with Baghouse
-012/M-08	Silo Discharge with Baghouse
-013/N-13	Finish Mill with Baghouse
-014/Q-17	Cement Storage Silos #1 & #2 Discharge System with Baghouse
-015/Q-15	Cement Storage Silos #1 & #2 with Baghouse
-017/D-63	Iron Ore Bin with Baghouse
-019/M-05	Finish Mill Feed Belt with Baghouse

-020/	Kiln, Raw Mill and Clinker Cooler with Baghouse
-021/Z-17	Cement Storage Silo #3 Discharge System with Baghouse
-022/Z-15	Cement Storage Silo #3 with Baghouse
-023/	Cement Storage Silo #4 and Truck Loadout Sys. with Baghouse
-024/Z-18	Cement Storage Silo and Railcar Loadout Sys. with Baghouses
Brooksville Power Plant	
-035/D-38	Limestone Rock Bin Baghouse
-036/D-31	Contaminated Fly Ash & Filter Dust Bin
-037/D-39	Limestone Screening System
-038/D-13	Limestone Fines Storage Bin
-039/Z-31	Lime Dust Storage Bin
-018	Power Plant
-042	Coal Receiving, Handling and Transfer System (fugitives)

Insignificant Emissions Units and/or Activities. For the Insignificant Emissions Units and/or Activities, see Appendix I-1 (attached).

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s) on all correspondence, test report submittals, applications, etc.

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:

Appendix A-1: Abbreviations, Acronyms, Citations, and Identification Numbers.

Appendix H-1: Permit History/ID Number Changes.

These documents are on file with the permitting authority:

Mr. Dick Arbes letter dated October 13, 1997, regarding the intent to eliminate the requirement of ambient monitoring.

Application(s) received June 13, 1996.

Fax received from Mr. Steven C. Cullen on August 2, 1999.

Fax received from Mr. Steven C. Cullen on October 21, 1999.

Mr. Steven C. Cullen's letter with enclosures received March 4, 2003.

"INTENT TO ISSUE TITLE V AIR OPERATION REVISION" clerked on April 2, 2003.

Proof of Public Notice publication (affadavit) received April 30, 2003.

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-4, TITLE V CONDITIONS, is a part of this permit.
{Permitting Note: APPENDIX TV-4, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}
2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.; and, AC27-199744]
3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
4. Prevention of Accidental Releases (Section 112(r) of CAA).
The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:
RMP Reporting Center
Post Office Box 3346
Merrifield, VA 22116-3346
Telephone: 703/816-4434
and,
b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.
[40 CFR 68]
5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit. There are none listed at this time.
[Rule 62-213.440(1), F.A.C.]
6. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]

7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
{Permitting note: The Department has not required or deemed anything necessary to date.}
[Rule 62-296.320(1)(a), F.A.C.]

8. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility during operations include: chemical or water application of dust suppressants on roads and construction sites, landscaping and planting of vegetation.
[Rule 62-296.320(4)(c)2., F.A.C.; and, AC27-118672, -118673, -118675, -118677, -118678, -118683, -118685, -118686, -118687, -118688, -118689, -118690, -189081, -199744 & -228926]

9. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.
[Rule 62-213.440, F.A.C.]

10. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Southwest District office at the following address:

Department of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, Florida 33619-8218
Telephone: 813/744-6100
Fax: 813/744-6084

11. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air & EPCRA Enforcement Branch
Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9155
Fax: 404/562-9163

12. The facility ID of 0530021 is the consolidated ID of 0530021, 0530005 and 0530032, and will be used for all future permitting activities.
[Rule 62-4.070(3), F.A.C.]

13. PM-10 Ambient Monitoring. The permittee shall install and operate four (4) ambient monitoring devices for particulate matter (PM-10) in accordance with EPA quality assurance procedures and reference methods in 40 CFR 53. The monitoring devices shall be operated at three locations (one location will have two monitors for quality assurance purposes) approved by Hernando County. The frequency of operation of the monitors shall be every six (6) days. The ambient monitoring program shall begin December 31, 2000.
[Applicant requested July 6, 2000, via facsimile]

14. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.
[Rules 62-213.440(3) and 62-213.900, F.A.C.]

15. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.
[Rule 62-213.420(4), F.A.C.]

Subsection A. This section addresses the following emissions units.

Brooksville Cement Plant I	
E.U. ID No./Facility ID No.	Brief Description
-001/D-75	Filter Dust Bin with Baghouse
-002/D-67	Fly Ash/Equilibrium Catalyst Bin with Baghouse
-004/F-14	Raw Meal Transfer with Baghouse
-006/G-12A & B	Two Blend Silos with Baghouse
-007/H-15	Kiln Feed Surge Bin with Baghouse
-xxx/L-03	Clinker Cooler Discharge with Baghouse
-010/L-06 & L-07	Clinker Storage Silo and Finish Mill Storage Silo with Baghouse
-011/L-08	Gypsum and Limestone Bins with Baghouse
-012/M-08	Silo Discharge with Baghouse
-013/N-13	Finish Mill with Baghouse
-014/Q-17	Cement Storage Silos #1 & #2 Discharge System with Baghouse
-015/Q-15	Cement Storage Silos #1 & #2 with Baghouse
-017/D-63	Iron Ore Bin with Baghouse
-019/M-05	Finish Mill Feed Belt with Baghouse
-021/Z-17	Cement Storage Silo #3 Discharge System with Baghouse
-022/Z-15	Cement Storage Silo #3 with Baghouse
-023/	Cement Storage Silo #4 and Truck Loadout System with Baghouse
-024/Z-18	Cement Storage Silo and Railcar Loadout System with Baghouses

Filter Dust Bin with Baghouse. This emissions unit is a storage bin for fines (dust). The particulate matter (PM) emissions from the materials being transferred are controlled by a low temperature baghouse fabric filter system. The stack height is 125 feet, with an exit diameter of 2.0 feet and an exit temperature of 77 °F. The actual volumetric flow rate is 6,800 acfm; and, the maximum dry standard flow rate is 6,686 dscfm.

Fly Ash/Equilibrium Catalyst Bin with Baghouse. This emissions unit is a storage bin for fly ash/equilibrium catalyst. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 125 feet, with an exit diameter of 2.0 feet and an exit temperature of 77 °F. The actual volumetric flow rate is 4,200 acfm; and, the maximum dry standard flow rate is 4,130 dscfm.

Raw Meal Transfer with Baghouse. This emissions unit is an activity of raw meal being transferred from the storage bins to the raw mill. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 70 feet, with an exit diameter of 1.0 feet and an exit temperature of 180 °F. The actual volumetric flow rate is 1,200 acfm; and, the maximum dry standard flow rate is 970 dscfm.

Two Blend Storage Silos with Baghouse. This emissions unit is two storage silos for the raw meal being transferred from the raw mill. The PM emissions are controlled by a single low temperature baghouse fabric filter system. The stack height is 240 feet, with an exit diameter of 3.5 feet and an exit temperature of 180 °F. The actual volumetric flow rate is 17,000 acfm; and, the maximum dry standard flow rate is 13,745 dscfm.

Kiln Feed Surge Bin with Baghouse. This emissions unit is an activity of materials being pre-heated in the pre-heater and transferred to the kiln. The PM emissions are controlled by a medium temperature baghouse fabric filter system. The stack height is 50 feet, with an exit diameter of 2.0 feet and an exit temperature of 200 °F. The actual volumetric flow rate is 6,000 acfm; and, the maximum dry standard flow rate is 4,704 dscfm.

Clinker Cooler Discharge with Baghouse. This emissions unit is an activity of clinker transfer from the clinker cooler to the deep bucket conveyor (L-03), which conveys clinker to clinker storage. The PM emissions are controlled by a medium temperature baghouse fabric filter system. The stack height is 10 feet, with an exit diameter of 1.0 feet and an exit temperature of 250 °F. The actual volumetric flow rate is 5,100 acfm; and, the maximum dry standard flow rate is 3,717 dscfm.

Clinker Storage Silo and Finish Mill Storage Silo with Baghouse. This emissions unit is an activity of clinker being transferred to the finish mill. The PM emissions are controlled by a single medium temperature baghouse fabric filter system. The stack height is 200 feet, with an exit diameter of 1.5 feet and an exit temperature of 200 °F. The actual volumetric flow rate is 2,600 acfm; and, the maximum dry standard flow rate is 2,038 dscfm.

Gypsum and Limestone Bins with Baghouse. This emissions unit is an activity of gypsum and limestone being stored and transferred. The PM emissions are controlled by a single medium temperature baghouse fabric filter system. The stack height is 135 feet, with an exit diameter of 1.5 feet and an exit temperature of 200 °F. The actual volumetric flow rate is 5,000 acfm; and, the maximum dry standard flow rate is 3,920 dscfm.

Silo Discharge with Baghouse. This emissions unit is an activity of clinker, gypsum or limestone being transferred from their silos. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 135 feet, with an exit diameter of 2.5 feet and an exit temperature of 100 °F. The actual volumetric flow rate is 9,000 acfm; and, the maximum dry standard flow rate is 8,316 dscfm.

Finish Mill with Baghouse. This emissions unit combines clinker and gypsum to form cement. The PM emissions are controlled by a medium temperature baghouse fabric filter system. The stack height is 70 feet, with an exit diameter of 5.0 feet and an exit temperature of 210 °F. The actual volumetric flow rate is 40,000 acfm; and, the maximum dry standard flow rate is 30,892 dscfm.

Cement Storage Silos #1 & #2 Discharge System with Baghouse. This emissions unit activity is the unloading of cement from the two storage silos. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 50 feet, with an exit diameter of 1.5 feet and an exit temperature of 160 °F. The actual volumetric flow rate is 3,200 acfm; and, the maximum dry standard flow rate is 2,671 dscfm.

Cement Storage Silos #1 & #2 with Baghouse. These emissions units are an activity of cement being pneumatically transferred to two storage silos from the finish mill. The PM emissions are controlled by a single low temperature baghouse fabric filter system. The stack height is 200 feet, with an exit diameter of 2.0 feet and an exit temperature of 180 °F. The actual volumetric flow rate is 7,400 acfm; and, the maximum dry standard flow rate is 5,983 dscfm.

Iron Ore Bin with Baghouse. This emissions unit is an activity of iron ore being stored in a bin. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 51 feet, with an exit diameter of 1.5 feet and an exit temperature of 180 °F. The actual volumetric flow rate is 3,600 acfm; and, the maximum dry standard flow rate is 2,911 dscfm.

Finish Mill Feed Belt with Baghouse. This emissions unit is an activity of transferring clinker, gypsum or limestone to the finish mill. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 29 feet, with an exit diameter of 2.0 feet and an exit temperature of 85 °F. The actual volumetric flow rate is 9,000 acfm; and, the maximum dry standard flow rate is 8,820 dscfm.

Cement Storage Silo #3 Discharge System with Baghouse. This emissions unit was used for the unloading of lime. Now, this emissions unit is used for the unloading of cement from a storage silo. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 50 feet, with an exit diameter of 1.5 feet and an exit temperature of 160 °F. The actual volumetric flow rate is 10,000 acfm.

Cement Storage Silo #3 with Baghouse. This emissions unit was used for the storage of lime. Now, this emissions unit is an activity of cement being pneumatically transferred to a silo from the finish mill. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 200 feet, with an exit diameter of 2.0 feet and an exit temperature of 180 °F. The actual volumetric flow rate is 5,300 acfm.

Cement Storage Silo #4 and Truck Loadout System with Baghouse. This emissions unit is an activity of cement being pneumatically transferred to the silo from the finish mill and cement loaded into trucks. The PM emissions are controlled by a single low temperature baghouse fabric filter system. The stack height is 75 feet, with an exit diameter of 0.8 feet and an exit temperature of 77 °F. The actual volumetric flow rate is 860 acfm; and, the maximum dry standard flow rate is 829 dscfm.

Cement Storage Silo and Railcar Loadout System with Baghouses. This emissions unit is an activity of cement being pneumatically transferred to the railcar silo from cement storage silos #1, #2, and #3. The PM emissions are controlled by two low temperature baghouse fabric filter systems. One stack height is 80 feet, with an exit diameter of 1.5 feet and an exit temperature of 77 °F, actual volumetric flow rate is 6,000 acfm and, the maximum dry standard flow rate is 5,899 dscfm; and, the other (Z-18) stack height is 10 feet, with an exit diameter of 0.5 feet and an exit temperature of 77 °F, actual volumetric flow rate is 500 acfm and, the maximum dry standard flow rate is 490 dscfm.

{Permitting note: These emissions units are regulated under Rule 62-297.620(4), F.A.C., Exceptions and Approval of Alternate Procedures and Requirements; Rules 62-212.400 and 62-212.410, F.A.C., Prevention of Significant Deterioration (PSD-FL-091) and Best Available Control Technology, respectively; Power Plant Siting: PA 82-17; 40 CFR 60, Subpart F, Standards of Performance for Portland Cement Plants, adopted in Rule 62-204.800, F.A.C.; and, 40 CFR 63, Subpart LLL, National Emissions Standards for Hazardous Air Pollutants from Portland Cement Manufacturing Industry, adopted in Rule 62-204.800, F.A.C., by June 10, 2002.}

General

A.0. The following Specific Conditions are in effect until midnight of June 9, 2002.

A.1. **Attachment "40 CFR 60, Subpart A"** is incorporated by reference.

Essential Potential to Emit (PTE) Parameters

A.2. **Permitted Capacity.** The maximum process/transfer/throughput rates are:

E.U. ID No.	Brief Description	Maximum Rate
-001	Filter Dust Bin with Baghouse	450 tons/hour (TPH)
-002	Fly Ash/Equilibrium Catalyst Bin with Baghouse	25 TPH
-004	Raw Meal Transfer with Baghouse	138 TPH
-006	Blending Silo with Baghouse	138 TPH
-007	Kiln Feed Surge Bin with Baghouse	138 TPH
-xxx	Clinker Cooler Discharge with Baghouse	83 TPH
-010	Clinker Storage Silo & Finish Mill Storage Silo with Baghouse	83 TPH
-011	Gypsum and Limestone Bins with Baghouse	75 TPH
-012	Silo Discharge with Baghouse	122 TPH
-013	Finish Mill with Baghouse	125 TPH; 876,000 TPY
-014	Cement Storage Silos #1 & #2 Discharge Sys. with Baghouse	300 TPH
-015	Cement Storage Silos #1 & #2 with Baghouse	125 TPH each 876,000 TPY each
-017	Iron Ore Bin with Baghouse	100 TPH
-019	Finish Mill Feed Belt with Baghouse	120 TPH
-021	Cement Storage Silo #3 Discharge Sys. with Baghouse	300 TPH
-022	Cement Storage Silo #3 with Baghouse	125 TPH; 876,000 TPY
-023	Cement Storage Silo #4 & Truck Loadout Sys. with Baghouse	47 TPH: silo 390 TPH: trucks
-024	Cement Storage Silo and Railcar Loadout System with Baghouses	30 TPH: silo 100 TPH: railcars

{Permitting note: The maximum rates have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; PSD-FL-090 and PSD-FL-091; 0530021-003-AO; 0530021-004-AO; 0530021-006-AC; and, Application received June 13, 1996.]

A.3. Hours of Operation.

a. The emissions units listed in Specific Condition A.2. are allowed to operate continuously, i.e., 8,760 hours/year, except for the Cement Storage Silo #3 Discharge System, the Cement Storage Silo #3, and the Cement Storage Silo #4 and Truck Loadout System.

b. The Cement Storage Silo #3 Discharge System, the Cement Storage Silo #3, and the Cement Storage Silo #4 and Truck Loadout System are allowed to operate 7,884 hours/year.

[AC27-091432, -091433, -118672, -118673, -118675, -118677, -118678, -118683, -118685, -118686, -118687, -118688, -118689, -118690, -189081, -199744 & -228926]

A.4. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition A.13.

[Rule 62-297.310(2), F.A.C.]

A.5. Method of Operation. The emissions units either process or transfer materials used in the production of Portland cement. The fly ash handling system (including transfer and silo storage) will be totally enclosed and vented (including pneumatic system exhaust) through fabric filters.

[Rule 62-213.410, F.A.C.; PA 82-17 and PA 82-17E; and, PSD-FL-090 and PSD-FL-091]

Emission Limitations

A.6. Particulate Matter. The maximum allowable particulate matter emissions are:

E.U. ID No.	Brief Description	Maximum Allowable Limits
-001	Filter Dust Bin with Baghouse	0.015 gr/acfm; 0.7 lb/hr; 3.07 TPY
-002	Fly Ash/Equilibrium Catalyst Bin with Baghouse	0.015 gr/acfm; 0.4 lb/hr; 1.75 TPY
-004	Raw Meal Transfer with Baghouse	0.015 gr/acfm; 0.2 lb/hr; 0.88 TPY
-006	Blending Silo with Baghouse	0.015 gr/acfm; 2.2 lbs/hr; 9.64 TPY
-007	Kiln Feed Surge Bin with Baghouse	0.015 gr/acfm; 0.8 lb/hr; 3.50 TPY
-xxx	Clinker Cooler Discharge with Baghouse	0.015 gr/acfm; 0.66 lb/hr; 2.9 TPY
-010	Clinker Storage Silo and Finish Mill Storage Silo with Baghouse	0.015 gr/acfm; 0.3 lb/hr; 1.31 TPY
-011	Gypsum and Limestone Bins with Baghouse	0.015 gr/acfm; 0.6 lb/hr; 2.63 TPY
-012	Silo Discharge with Baghouse	0.015 gr/acfm; 1.2 lbs/hr; 5.26 TPY
-013	Finish Mill with Baghouse	0.015 gr/acfm; 5.1 lbs/hr; 22.34 TPY
-014	Cement Storage Silos #1 & #2 Discharge Sys. with Baghouse	0.015 gr/acfm; 0.4 lb/hr; 1.75 TPY
-015	Cement Storage Silos #1 & #2 with Baghouse	0.015 gr/acfm; 1.0 lb/hr; 4.38 TPY
-017	Iron Ore Bin with Baghouse	0.015 gr/acfm; 0.5 lb/hr; 2.19 TPY
-019	Finish Mill Feed Belt with Baghouse	1.16 lbs/hr; 5.08 tons/rolling 12-months
-021	Cement Storage Silo #3 Discharge Sys. with Baghouse	0.015 gr/acfm; 1.29 lbs/hr; 5.1 TPY
-022	Cement Storage Silo #3 with Baghouse	0.015 gr/acfm; 0.68 lb/hr; 2.7 TPY
-023	Cement Storage Silo #4 and Truck Loadout Sys. with Baghouse	0.015 gr/acfm; 0.11 lb/hr; 0.44 TPY
-024	Cement Storage Silo and Railcar Loadout Sys. with Baghouses	0.02 gr/acfm

[PSD-FL-090 & PSD-FL-091 and BACT; PA 82-17; and, AC27-091432, -091433, -118672, -118673, -118675, -118677, -118678, -118683, -118685, -118686, -118687, -118688, -118689, -118690, -189081, -199744 & -228926; and, 0530021-006-AC]

A.7. Visible Emissions. Visible emissions shall not exceed 5 percent opacity, since each emissions unit's potential particulate matter emissions are less than 100 TPY and is equipped with a baghouse control system. As long as the visible emissions do not exceed 5 percent opacity, compliance is assumed for the particulate matter limitations established in Specific Condition A.6. See Specific Condition A.11.

If the Department has reason to believe that the particulate matter weight emissions standard in Specific Condition A.6. is not being met, it shall require that compliance be demonstrated by the test method specified in Specific Condition A.10.

[Rule 62-297.620(4), F.A.C.; and, AC27-091432, -091433, -118672, -118673, -118675, -118677, -118678, -118683, -118685, -118686, -118687, -118688, -118689, -118690, -189081, -199744 & -228926]

Excess Emissions

A.8. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

[Rule 62-210.700(1), F.A.C.]

A.9. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

A.10. Particulate Matter. Particulate matter emissions compliance testing shall be demonstrated using EPA Method 5 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. See Specific Conditions A.6. and A.7.

[Rules 62-204.800 and 62-297.401, F.A.C.]

A.11. Visible Emissions. Visible emissions compliance testing shall be demonstrated annually using EPA Method 9 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. See Specific Conditions A.7. and A.17.

[Rules 62-204.800 and 62-297.401, F.A.C.; and, 40 CFR 60.60.64(b)(4)]

A.12. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

A.13. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

A.14. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

A.15. Applicable Test Procedures.

(a) **Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

- c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- (b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (attached).
- (e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]

A.16. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.]

A.17. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

- (a) General Compliance Testing.
3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
- a. Did not operate.
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
- a. Visible emissions, if there is an applicable standard;
 - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or, 100 tons per year or more of any other regulated air pollutant; and,
 - c. Each NESHAP pollutant, if there is an applicable emission standard.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C.]

Monitoring of Operations

A.18. Determination of Process Variables.

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

Recordkeeping and Reporting Requirements

A.19. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

A.20. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.

21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

Subsection B. This section addresses the following emissions units.

Brooksville Cement Plant I	
E.U. ID No./Facility ID No.	Brief Description
-001/D-75	Filter Dust Bin with Baghouse
-002/D-67	Fly Ash/Equilibrium Catalyst Bin with Baghouse
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-006/G-12A & B	Two Blend Silos with Baghouse
-007/H-15	Kiln Feed Surge Bin with Baghouse
-xxx/L-03	Clinker Cooler Discharge with Baghouse
-010/L-06 & L-07	Clinker Storage Silo and Finish Mill Storage Silo with Baghouse
-011/L-08	Gypsum and Limestone Bins with Baghouse
-012/M-08	Silo Discharge with Baghouse
-013/N-13	Finish Mill with Baghouse
-014/Q-17	Cement Storage Silos #1 & #2 Discharge System with Baghouse
-015/Q-15	Cement Storage Silos #1 & #2 with Baghouse
-017/D-63	Iron Ore Bin with Baghouse
-019/M-05	Finish Mill Feed Belt with Baghouse
-021/Z-17	Cement Storage Silo #3 Discharge System with Baghouse
-022/Z-15	Cement Storage Silo #3 with Baghouse
-023/	Cement Storage Silo #4 and Truck Loadout System with Baghouse
-024/Z-18	Cement Storage Silo and Railcar Loadout System with Baghouses

Filter Dust Bin with Baghouse. This emissions unit is a storage bin for fines (dust). The particulate matter (PM) emissions from the materials being transferred are controlled by a low temperature baghouse fabric filter system. The stack height is 125 feet, with an exit diameter of 2.0 feet and an exit temperature of 77 °F. The actual volumetric flow rate is 6,800 acfm; and, the maximum dry standard flow rate is 6,686 dscfm.

Fly Ash/Equilibrium Catalyst Bin with Baghouse. This emissions unit is a storage bin for fly ash/equilibrium catalyst. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 125 feet, with an exit diameter of 2.0 feet and an exit temperature of 77 °F. The actual volumetric flow rate is 4,200 acfm; and, the maximum dry standard flow rate is 4,130 dscfm.

Raw Meal Transfer with Baghouse. This emissions unit is an activity of raw meal being transferred from the storage bins to the raw mill. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 70 feet, with an exit diameter of 1.0 feet and an exit temperature of 180 °F. The actual volumetric flow rate is 1,200 acfm; and, the maximum dry standard flow rate is 970 dscfm.

Two Blend Storage Silos with Baghouse. This emissions unit is two storage silos for the raw meal being transferred from the raw mill. The PM emissions are controlled by a single low temperature baghouse fabric filter system. The stack height is 240 feet, with an exit diameter of 3.5 feet and an exit temperature of 180 °F. The actual volumetric flow rate is 17,000 acfm; and, the maximum dry standard flow rate is 13,745 dscfm.

Kiln Feed Surge Bin with Baghouse. This emissions unit is an activity of materials being pre-heated in the pre-heater and transferred to the kiln. The PM emissions are controlled by a medium temperature baghouse fabric filter system. The stack height is 50 feet, with an exit diameter of 2.0 feet and an exit temperature of 200 °F. The actual volumetric flow rate is 6,000 acfm; and, the maximum dry standard flow rate is 4,704 dscfm.

Clinker Cooler Discharge with Baghouse. This emissions unit is an activity of clinker transfer from the clinker cooler to the deep bucket conveyor (L-03), which conveys clinker to clinker storage. The PM emissions are controlled by a medium temperature baghouse fabric filter system. The stack height is 10 feet, with an exit diameter of 1.0 feet and an exit temperature of 250 °F. The actual volumetric flow rate is 5,100 acfm; and, the maximum dry standard flow rate is 3,717 dscfm.

Clinker Storage Silo and Finish Mill Storage Silo with Baghouse. This emissions unit is an activity of clinker being transferred to the finish mill. The PM emissions are controlled by a single medium temperature baghouse fabric filter system. The stack height is 200 feet, with an exit diameter of 1.5 feet and an exit temperature of 200 °F. The actual volumetric flow rate is 2,600 acfm; and, the maximum dry standard flow rate is 2,038 dscfm.

Gypsum and Limestone Bins with Baghouse. This emissions unit is an activity of gypsum and limestone being stored and transferred. The PM emissions are controlled by a single medium temperature baghouse fabric filter system. The stack height is 135 feet, with an exit diameter of 1.5 feet and an exit temperature of 200 °F. The actual volumetric flow rate is 5,000 acfm; and, the maximum dry standard flow rate is 3,920 dscfm.

Silo Discharge with Baghouse. This emissions unit is an activity of clinker, gypsum or limestone being transferred from their silos. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 135 feet, with an exit diameter of 2.5 feet and an exit temperature of 100 °F. The actual volumetric flow rate is 9,000 acfm; and, the maximum dry standard flow rate is 8,316 dscfm.

Finish Mill with Baghouse. This emissions unit combines clinker and gypsum to form cement. The PM emissions are controlled by a medium temperature baghouse fabric filter system. The stack height is 70 feet, with an exit diameter of 5.0 feet and an exit temperature of 210 °F. The actual volumetric flow rate is 40,000 acfm; and, the maximum dry standard flow rate is 30,892 dscfm.

Cement Storage Silos #1 & #2 Discharge System with Baghouse. This emissions unit activity is the unloading of cement from the three storage silos. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 50 feet, with an exit diameter of 1.5 feet and an exit temperature of 160 °F. The actual volumetric flow rate is 3,200 acfm; and, the maximum dry standard flow rate is 2,671 dscfm.

Cement Storage Silos #1 & #2 with Baghouse. This emissions unit is an activity of cement being pneumatically transferred to two storage silos from the finish mill. The PM emissions are controlled by a single low temperature baghouse fabric filter system. The stack height is 200 feet, with an exit diameter of 2.0 feet and an exit temperature of 180 °F. The actual volumetric flow rate is 7,400 acfm; and, the maximum dry standard flow rate is 5,983 dscfm.

Iron Ore Bin with Baghouse. This emissions unit is an activity of iron ore being stored in a bin. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 51 feet, with an exit diameter of 1.5 feet and an exit temperature of 180 °F. The actual volumetric flow rate is 3,600 acfm; and, the maximum dry standard flow rate is 2,911 dscfm.

Finish Mill Feed Belt with Baghouse. This emissions unit is an activity of transferring clinker, gypsum or limestone to the finish mill. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 29 feet, with an exit diameter of 2.0 feet and an exit temperature of 85 °F. The actual volumetric flow rate is 9,000 acfm; and, the maximum dry standard flow rate is 8,820 dscfm.

Cement Storage Silo #3 Discharge System with Baghouse. This emissions unit was used for the unloading of lime. Now, this emissions unit is used for the unloading of cement from a storage silo. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 50 feet, with an exit diameter of 1.5 feet and an exit temperature of 160 °F. The actual volumetric flow rate is 10,000 acfm.

Cement Storage Silo #3 with Baghouse. This emissions unit was used for the storage of lime. Now, this emissions unit is an activity of cement being pneumatically transferred to a silo from the finish mill. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 200 feet, with an exit diameter of 2.0 feet and an exit temperature of 180 °F. The actual volumetric flow rate is 5,300 acfm.

Cement Storage Silo #4 and Truck Loadout System with Baghouse. This emissions unit is an activity of cement being pneumatically transferred to the silo from the finish mill and cement loaded into trucks. The PM emissions are controlled by a single low temperature baghouse fabric filter system. The stack height is 75 feet, with an exit diameter of 0.8 feet and an exit temperature of 77 °F. The actual volumetric flow rate is 860 acfm; and, the maximum dry standard flow rate is 829 dscfm.

Cement Storage Silo and Railcar Loadout System with Baghouse. This emissions unit is an activity of cement being pneumatically transferred to the railcar silo from the cement storage silos #1, #2, and #3. The PM emissions are controlled by two low temperature baghouse fabric filter systems. One stack height is 80 feet, with an exit diameter of 1.5 feet and an exit temperature of 77 °F, actual volumetric flow rate is 6,000 acfm and, the maximum dry standard flow rate is 5,899 dscfm; and, the other (Z-18) stack height is 10 feet, with an exit diameter of 0.5 feet and an exit temperature of 77 °F, actual volumetric flow rate is 500 acfm and, the maximum dry standard flow rate is 490 dscfm.

{Permitting note: These emissions units are regulated under Rule 62-297.620(4), F.A.C., Exceptions and Approval of Alternate Procedures and Requirements; Rules 62-212.400 and 62-212.410, F.A.C., Prevention of Significant Deterioration (PSD-FL-091) and Best Available Control Technology, respectively; Power Plant Siting: PA 82-17; and, 40 CFR 63, Subpart LLL, National Emissions Standards for Hazardous Air Pollutants from Portland Cement Manufacturing Industry, adopted in Rule 62-204.800, F.A.C., by June 10, 2002.}

General

B.0. The following Specific Conditions are in effect beginning at 12:01 a.m. of June 10, 2002. [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1351]

B.1. Exemption From New Source Performance Standards. Except as provided in paragraphs 40 CFR 63.1356(a)(1) and (a)(2), any affected source subject to the provisions of 40 CFR 63, Subpart LLL is exempted from any otherwise applicable new source performance standard contained in 40 CFR Part 60, Subpart F. [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1356]

B.2. Attachment "40 CFR 63, Subpart A" is incorporated by reference.

Essential Potential to Emit (PTE) Parameters

B.3. Permitted Capacity. The maximum process/transfer/throughput rates are:

E.U. ID No.	Brief Description	Maximum Rate
-001	Filter Dust Bin with Baghouse	450 tons/hour (TPH)
-002	Fly Ash/Equilibrium Catalyst Bin with Baghouse	25 TPH
-004	Raw Meal Transfer with Baghouse	138 TPH
-006	Blending Silo with Baghouse	138 TPH
-007	Kiln Feed Surge Bin with Baghouse	138 TPH
-xxx	Clinker Cooler Discharge with Baghouse	83 TPH
-010	Clinker Storage Silo and Finish Mill Storage Silo with Baghouse	83 TPH
-011	Gypsum and Limestone Bins with Baghouse	75 TPH
-012	Silo Discharge with Baghouse	122 TPH
-013	Finish Mill with Baghouse	125 TPH; 876,000 TPY
-014	Cement Storage Silos #1 & #2 Discharge System with Baghouse	300 TPH
-015	Cement Storage Silos #1 & #2 with Baghouse	125 TPH each 876,000 TPY each
-017	Iron Ore Bin with Baghouse	100 TPH
-019	Finish Mill Feed Belt with Baghouse	120 TPH
-021	Cement Storage Silo #3 Discharge System with Baghouse	300 TPH
-022	Cement Storage Silo #3 with Baghouse	125 TPH; 876,000 TPY
-023	Cement Storage Silo #4 and Truck Loadout System with Baghouse	47 TPH: silo 390 TPH: trucks
-024	Cement Storage Silo and Railcar Loadout System with Baghouses	30 TPH: silo 100 TPH: railcars

{Permitting note: The maximum rates have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; 0530021-003-AO; 0530021-004-AO; 0530021-006-AC; and, Application received June 13, 1996.]

B.4. Hours of Operation.

- a. The emissions units listed in Specific Condition B.3. are allowed to operate continuously, i.e., 8,760 hours/year, except for the Cement Storage Silo #3 Discharge System, the Cement Storage Silo #3, and the Cement Storage Silo #4 and Truck Loadout System.
- b. The Cement Storage Silo #3 Discharge System, the Cement Storage Silo #3, and the Cement Storage Silo #4 and Truck Loadout System are allowed to operate 7,884 hours/year.
 [AC27-091432, -091433, -118672, -118673, -118675, -118677, -118678, -118683, -118685, -118686, -118687, -118688, -118689, -118690, -189081, -199744 & -228926]

B.5. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition B.14.
 [Rule 62-297.310(2), F.A.C.]

B.6. Method of Operation. The emissions units either process or transfer materials used in the production of Portland cement. The fly ash handling system (including transfer and silo storage) will be totally enclosed and vented (including pneumatic system exhaust) through fabric filters.
 [Rule 62-213.410, F.A.C.; PA 82-17 and PA 82-17E; and, PSD-FL-090 and 091]

Emission Limitations

B.7. Particulate Matter. The maximum allowable particulate matter emissions are:

E.U. ID No.	Brief Description	Maximum Allowable Limits
-001	Filter Dust Bin with Baghouse	0.015 gr/acfm; 0.7 lb/hr; 3.07 TPY
-002	Fly Ash/Equilibrium Catalyst Bin with Baghouse	0.015 gr/acfm; 0.4 lb/hr; 1.75 TPY
-004	Raw Meal Transfer with Baghouse	0.015 gr/acfm; 0.2 lb/hr; 0.88 TPY
-006	Blending Silo with Baghouse	0.015 gr/acfm; 2.2 lbs/hr; 9.64 TPY
-007	Kiln Feed Surge Bin with Baghouse	0.015 gr/acfm; 0.8 lb/hr; 3.50 TPY
-xxx	Clinker Cooler Discharge with Baghouse	0.015 gr/acfm; 0.66 lb/hr; 2.9 TPY
-010	Clinker Storage Silo & Finish Mill Storage Silo with Baghouse	0.015 gr/acfm; 0.3 lb/hr; 1.31 TPY
-011	Gypsum and Limestone Bins with Baghouse	0.015 gr/acfm; 0.6 lb/hr; 2.63 TPY
-012	Silo Discharge with Baghouse	0.015 gr/acfm; 1.2 lbs/hr; 5.26 TPY
-013	Finish Mill with Baghouse	0.015 gr/acfm; 5.1 lbs/hr; 22.34 TPY
-014	Cement Storage Silos #1 & #2 Discharge Sys. with Baghouse	0.015 gr/acfm; 0.4 lb/hr; 1.75 TPY
-015	Cement Storage Silos #1 & #2 with Baghouse	0.015 gr/acfm; 1.0 lb/hr; 4.38 TPY
-017	Iron Ore Bin with Baghouse	0.015 gr/acfm; 0.5 lb/hr; 2.19 TPY
-019	Finish Mill Feed Belt with Baghouse	1.16 lbs/hr; 5.08 tons/rolling 12-months
-021	Cement Storage Silo #3 Discharge System with Baghouse	0.015 gr/acfm; 1.29 lbs/hr; 5.1 TPY

-022	Cement Storage Silo #3 with Baghouse	0.015 gr/acfm; 0.68 lb/hr; 2.7 TPY
-023	Cement Storage Silo #4 and Truck Loadout Sys. with Baghouse	0.015 gr/acfm; 0.11 lb/hr; 0.44 TPY
-024	Cement Storage Silo and Railcar Loadout Sys. with Baghouses	0.02 gr/acfm

[PSD-FL-090 & PSD-FL-091 and BACT; PA 82-17; and, AC27-091432, -091433, -118672, -118673, -118675, -118677, -118678, -118683, -118685, -118686, -118687, -118688, -118689, -118690, -189081, -199744 & -228926; and, 0530021-006-AC]

B.8. Visible Emissions. Visible emissions shall not exceed 5 percent opacity, since each emissions unit's potential particulate matter emissions are less than 100 TPY and is equipped with a baghouse control system. As long as the visible emissions do not exceed 5 percent opacity, compliance is assumed for the particulate matter limitations established in Specific Condition **B.7**. See Specific Condition **B.12**.

If the Department has reason to believe that the particulate matter weight emissions standard in Specific Condition **B.7**. is not being met, it shall require that compliance be demonstrated by the test method specified in Specific Condition **B.11**.

[PSD-FL-090 & PSD-FL-091 and BACT; PA 82-17; AC27-091432, -091433, -118672, -118673, -118675, -118677, -118678, -118683, -118685, -118686, -118687, -118688, -118689, -118690, -189081, -199744 & -228926; and, Rule 62-297.620(4), F.A.C.]

Excess Emissions

B.9. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

[Rule 62-210.700(1), F.A.C.]

B.10. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

B.11. Particulate Matter. Particulate matter emissions compliance testing shall be demonstrated using EPA Method 5 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. See Specific Conditions **B.7**. and **B.8**.

[Rules 62-204.800 and 62-297.401, F.A.C.]

B.12. Visible Emissions. Visible emissions compliance testing shall be demonstrated annually using EPA Method 9 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. See Specific Conditions **B.8**. and **B.18**.

[Rules 62-204.800 and 62-297.401, F.A.C.; and, 40 CFR 63.1349(b)(2)]

B.13. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

B.14. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

B.15. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

B.16. Applicable Test Procedures.

(a) **Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

- c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- (b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (attached).
- (e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]

B.17. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.]

B.18. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or, 100 tons per year or more of any other regulated air pollutant; and,

c. Each NESHAP pollutant, if there is an applicable emission standard.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C.; and, 40 CFR 63.1349(c)]

B.19. The owner or operator of an affected emissions unit subject to 40 CFR 63, Subpart LLL, shall demonstrate initial compliance with the emission limits of 40 CFR 63.1347 and 40 CFR 63.1348 (See Specific Condition B.8.) using the test methods and procedures in paragraph 40 CFR 63.1349(b) and 40 CFR 63.7. Performance test results shall be documented in complete test reports that contain the information required by paragraphs 40 CFR 63.1349(a)(1) through (a)(10), as well as all other relevant information. The plan to be followed during testing shall be made available to the Administrator prior to testing, if requested.

- (1) A brief description of the process and the air pollution control system;
- (2) Sampling location description(s);
- (3) A description of sampling and analytical procedures and any modifications to standard procedures;
- (4) Test results;
- (5) Quality assurance procedures and results;
- (6) Records of operating conditions during the test, preparation of standards, and calibration procedures;
- (7) Raw data sheets for field sampling and field and laboratory analyses;
- (8) Documentation of calculations;
- (9) All data recorded and used to establish parameters for compliance monitoring; and
- (10) Any other information required by the test method.

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1349(a)]

Monitoring of Operations

B.20. Determination of Process Variables.

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in

conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

B.21.(a) The owner or operator of each Portland cement plant shall prepare for each affected emissions unit subject to the provisions of this subpart, a written operations and maintenance plan. Appendix O & M (Operation & Maintenance Plan) is a part of this permit and this subsection. The plan shall be submitted to the Administrator for review and approval as part of the application for a 40 CFR Part 70 permit and shall include the following information:

(1) Procedures for proper operation and maintenance of the affected emissions unit and air pollution control devices in order to meet the emission limits and operating limits of 40 CFR 63.1347 and 40 CFR 63.1348 (See Specific Condition **B.8.**);

(2) Corrective actions to be taken when required by paragraph 40 CFR 63.1350(e); and

(4) Procedures to be used to periodically monitor affected emissions units subject to opacity standards under 40 CFR 63.1348 (See Specific Condition **B.8.**). Such procedures must include the provisions of paragraphs 40 CFR 63.1350(a)(4)(i) through (a)(4)(iv).

(i) The owner or operator must conduct a monthly 1-minute visible emissions test of each affected emissions unit in accordance with Method 22 of Appendix A, 40 CFR Part 60. The test must be conducted while the affected emissions unit is in operation.

(ii) If no visible emissions are observed in six consecutive monthly tests for any affected emissions unit, the owner or operator may decrease the frequency of testing from monthly to semi-annually for that affected emissions unit. If visible emissions are observed during any semi-annual test, the owner or operator must resume testing of that affected emissions unit on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

(iii) If no visible emissions are observed during the semi-annual test for any affected emissions unit, the owner or operator may decrease the frequency of testing from semi-annually to annually for that affected emissions unit. If visible emissions are observed during any annual test, the owner or operator must resume testing of that affected emissions unit on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

(iv) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a 6-minute test of opacity in accordance with Method 9 of Appendix A, 40 CFR Part 60. The Method 9 test must begin within one hour of any observation of visible emissions.

(b) Failure to comply with any provision of the operations and maintenance plan developed in accordance with paragraph 40 CFR 63.1350(a) shall be a violation of the standard.

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1350(a)(1), (2) & (4) and (b)]

B.22. The owner or operator of a finish mill shall monitor opacity by conducting daily visual emissions observations of the mill sweep and air separator PMCDs (PM control devices) of this affected source, in accordance with the procedures of Method 22 of Appendix A, 40 CFR Part 60. The Method 22 test shall be conducted while the affected source is operating at the highest load or capacity level reasonably expected to occur within the day. The duration of the Method 22 test shall be six minutes. If visible emissions are observed during any Method 22 visible emissions test, the owner or operator must:

- (1) Initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan developed in accordance with paragraphs 40 CFR 63.1350(a)(1) and (a)(2); and
- (2) Within 24 hours of the end of the Method 22 test in which visible emissions were observed, conduct a visual opacity test of each stack from which visible emissions were observed in accordance with Method 9 of Appendix A, 40 CFR Part 60. The duration of the Method 9 test shall be thirty minutes.

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1350(e)]

B.23. The owner or operator of an affected source subject to a limitation on opacity under 40 CFR 63.1348 (See Specific Condition **B.8.**) shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with paragraph 40 CFR 63.1350(a). See Specific Condition B.21.

[Rule 62-206.800, F.A.C.; and, 40 CFR 63.1350(j)]

Notification, Recordkeeping and Reporting Requirements

B.24. Notification requirements.

(a) The notification provisions of 40 CFR 63, Subpart A, are contained in Appendix 40 CFR 63, Subpart A, and are applicable. If any State requires a notice that contains all of the information required in a notification listed in 40 CFR 63.1353, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of 40 CFR 63.1353 for that notification.

(b) Each owner or operator subject to the requirements of 40 CFR 63, Subpart LLL shall comply with the notification requirements in 40 CFR 63.9 as follows:

- (1) Initial notifications as required by 40 CFR 63.9(b) through (d). For the purposes of 40 CFR 63, Subpart LLL, a Title V or 40 CFR Part 70 permit application may be used in lieu of the initial notification required under 40 CFR 63.9(b), provided the same information is contained in the permit application as required by 40 CFR 63.9(b), and the State to which the permit application has been submitted has an approved operating permit program under 40 CFR Part 70 of this chapter and has received delegation of authority from the EPA. Permit applications shall be submitted by the same due dates as those specified for the initial notification.
- (2) Notification of performance tests, as required by 40 CFR 63.7 and 63.9(e).
- (3) Notification of opacity and visible emission observations required by 40 CFR 63.1349 in accordance with 40 CFR 63.6(h)(5) and 63.9(f).
- (4) Reserved.

(5) Notification of compliance status, as required by 40 CFR 63.9(h).

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1353(a) and (b)(1), (2), (3) & (5)]

B.25. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

B.26. Reporting Requirements.

(a) The reporting provisions of 40 CFR 63, Subpart A, are contained in Appendix 40 CFR 63, Subpart A, and are applicable. If any State requires a report that contains all of the information required in a report listed in 40 CFR 63.1354, the owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of 40 CFR 63.1354 for that report.

(b) The owner or operator of an affected source shall comply with the reporting requirements specified in 40 CFR 63.10 of the general provisions of 40 CFR Part 63, Subpart A as follows:

- (1) As required by 40 CFR 63.10(d)(2), the owner or operator shall report the results of performance tests as part of the notification of compliance status.
- (2) As required by 40 CFR 63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by 40 CFR 63.1349.
- (3) As required by 40 CFR 63.10(d)(4), the owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under 40 CFR 63.6(i) shall submit such reports by the dates specified in the written extension of compliance.
- (4) As required by 40 CFR 63.10(d)(5), if actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan specified in 40 CFR 63.6(e)(3), the owner or operator shall state such information in a semiannual report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report may be submitted simultaneously with the excess emissions and continuous monitoring system performance reports; and
- (5) Any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the owner or operator shall make an immediate report of the actions taken for that event within 2 working days, by telephone call or facsimile (FAX) transmission. The immediate report shall be followed by a letter, certified by the owner or operator or other responsible official, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1354(a) and (b)(1) thru (5)]

B.27. Recordkeeping Requirements.

(a) The owner or operator shall maintain files of all information (including all reports and notifications) required by 40 CFR 63.1355 recorded in a form suitable and readily available for inspection and review as required by 40 CFR 63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent **five** years of data shall be retained on site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.

(b) The owner or operator shall maintain records for each affected source as required by 40 CFR 63.10(b)(2) and (b)(3); and

(1) All documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9;

(2) All records of applicability determination, including supporting analyses; and

(3) If the owner or operator has been granted a waiver under 40 CFR 63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements.

[Rules 62-204.800 and 62-213.440, F.A.C.; and, 40 CFR 63.1355(a) and (b)]

B.28. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.

2. The facility at which the emissions unit is located.

3. The owner or operator of the emissions unit.

4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.

5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.

6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.

7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.

8. The date, starting time and duration of each sampling run.

9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.

10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

Miscellaneous

B.29. Delegation of Authority.

- (a) In delegating implementation and enforcement authority to a State under Subpart E of 40 CFR Part 63, the authorities contained in paragraph 40 CFR 63.1358(b) shall be retained by the Administrator and not transferred to a State.
- (b) Authority which will not be delegated to States:
 - (1) Approval of alternative non-opacity emission standards under 40 CFR 63.6(g).
 - (2) Approval of alternative opacity standards under 40 CFR 63.6(h)(9).
 - (3) Approval of major changes to test methods under 40 CFR 63.7(e)(2)(ii) and 63.7(f). A major change to a test method is a modification to a federally enforceable test method that uses unproven technology or procedures or is an entirely new method (sometimes necessary when the required test method is unsuitable).
 - (4) Approval of major changes to monitoring under 40 CFR 63.8(f). A major change to monitoring is a modification to federally enforceable monitoring that uses unproven technology or procedures, is an entirely new method (sometimes necessary when the required monitoring is unsuitable), or is a change in the averaging period.
 - (5) Waiver of recordkeeping under 40 CFR 63.10(f)

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1358]

Subsection C. This section addresses the following emissions unit.

Brooksville Cement Plant I	
E.U. ID No./Facility ID No.	Brief Description
-008/S-04	Clinker Receiving/Handling System

This emissions unit is an integrated system for handling clinker that includes a below-grade truck unloading hopper, a belt conveyor, and a deep-bucket conveyor. The fugitive particulate matter emissions generated from the transfer of clinker from the receiving hopper to the belt conveyor are controlled using a Johnson-Marsh Dust Suppressant system, which uses a non-ionic wetting agent to enhance the wettability of the clinker.

{Permitting note: This emissions unit is regulated under Rules 62-212.400 and 62-212.410, F.A.C., Prevention of Significant Deterioration (PSD-FL-091) and Best Available Control Technology, respectively; Power Plant Siting: PA 82-17; 40 CFR 60, Subpart F, Standards of Performance for Portland Cement Plants, adopted in Rule 62-204.800, F.A.C.; and, 40 CFR 63, Subpart LLL, National Emissions Standards for Hazardous Air Pollutants from Portland Cement Manufacturing Industry, adopted in Rule 62-204.800, F.A.C., by June 10, 2002.}

General

C.0. The following Specific Conditions are in effect until midnight of June 9, 2002.

C.1. Attachment "40 CFR 60, Subpart A" is incorporated by reference.

Essential Potential to Emit (PTE) Parameters

C.2. Permitted Capacity. The maximum process/transfer/throughput rate of clinker is 100 tons/hour.

{Permitting note: The maximum rate has been placed in the permit to identify the capacity of the emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, Application received June 13, 1996.]

C.3. Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.

[AC27-118680]

C.4. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition C.14. [Rule 62-297.310(2), F.A.C.]

C.5. Method of Operation. The emissions unit receives clinker from railcars and trucks from a below-grade receiving hopper and transfers the clinker using a belt conveyor and a deep-bucket conveyor system.

[Rule 62-213.410, F.A.C.; and, AC27-118680]

Emission Limitations

C.6. Particulate Matter. The allowable particulate matter emissions from the clinker handling system shall not exceed 0.7 lb/hr.

[AC27-118680]

C.7. Visible Emissions. Visible emissions shall not exceed 10 percent opacity. Compliance with the particulate matter emissions limit in Specific Condition C.6. shall be assumed if the visible emissions limit in this condition is met.

However, if visible emissions exceed 10 percent opacity, then the owner or operator shall install hoods, ducts, and air pollution control equipment that will reduce the particulate matter emissions to the standard listed in Specific Condition C.6.

[AC27-118680; and, 40 CFR 60.62(c)]

Excess Emissions

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS or NESHAP provision.}

C.8. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

[Rule 62-210.700(1), F.A.C.]

C.9. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

C.10. Particulate Matter. Particulate matter emissions shall be demonstrated using EPA Method 5 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. See Specific Conditions C.6. and C.7.

[Rules 62-204.800 and 62-297.401, F.A.C.]

C.11. Visible Emissions. Visible emissions shall be demonstrated annually using DER Method 9 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. See Specific Conditions C.12. and C.18.

[AC27-118680; and, Rules 62-204.800 and 62-297.401, F.A.C.]

C.12. DER Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

1. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.
2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:
 - a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.
 - b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value.
[Rule 62-297.401, F.A.C.]

C.13. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

C.14. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

C.15. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

C.16. Applicable Test Procedures.

(a) **Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (attached).

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]

C.17. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]

C.18. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or, 100 tons per year or more of any other regulated air pollutant; and,
 - c. Each NESHAP pollutant, if there is an applicable emission standard.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- (b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- (c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C.]

Monitoring of Operations

C.19. Determination of Process Variables

- (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
[Rule 62-297.310(5), F.A.C.]

Recordkeeping and Reporting Requirements

C.20. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

C.21. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- (b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
1. The type, location, and designation of the emissions unit tested.
 2. The facility at which the emissions unit is located.
 3. The owner or operator of the emissions unit.
 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
 8. The date, starting time and duration of each sampling run.
 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
 10. The number of points sampled and configuration and location of the sampling plane.
 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
 12. The type, manufacturer and configuration of the sampling equipment used.
 13. Data related to the required calibration of the test equipment.
 14. Data on the identification, processing and weights of all filters used.
 15. Data on the types and amounts of any chemical solutions used.
 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.

18. All measured and calculated data required to be determined by each applicable test procedure for each run.

19. The detailed calculations for one run that relate the collected data to the calculated emission rate.

20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.

21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

Miscellaneous

C.22. A water spray system shall be installed and used as necessary to control fugitive dust emissions during clinker unloading operations from train cars or trucks to the receiving hopper.
[AC27-118680]

Subsection D. This section addresses the following emissions unit.

Brooksville Cement Plant I	
E.U. ID No./Facility ID No.	Brief Description
-008/S-04	Clinker Receiving/Handling System

This emissions unit is an integrated system for handling clinker that includes a below-grade truck unloading hopper, a belt conveyor, and a deep-bucket conveyor. The fugitive particulate matter emissions generated from the transfer of clinker from the receiving hopper to the belt conveyor are controlled using a Johnson-Marsh Dust Suppressant system, which uses a non-ionic wetting agent to enhance the wettability of the clinker.

{Permitting note: This emissions unit is regulated under Rules 62-212.400 and 62-212.410, F.A.C., Prevention of Significant Deterioration (PSD-FL-091) and Best Available Control Technology, respectively; Power Plant Siting: PA 82-17; and, 40 CFR 63, Subpart LLL, National Emissions Standards for Hazardous Air Pollutants from Portland Cement Manufacturing Industry, adopted in Rule 62-204.800, F.A.C., by June 10, 2002.}

General

D.0. The following Specific Conditions are in effect beginning at 12:01 a.m. of June 10, 2002. [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1351]

D.1. Exemption From New Source Performance Standards. Except as provided in paragraphs 40 CFR 63.1356(a)(1) and (a)(2), any affected source subject to the provisions of 40 CFR 63, Subpart LLL is exempted from any otherwise applicable new source performance standard contained in 40 CFR Part 60, Subpart F. [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1356]

D.2. Attachment "40 CFR 63, Subpart A" is incorporated by reference.

Essential Potential to Emit (PTE) Parameters

D.3. Permitted Capacity. The maximum process/transfer/throughput rate of clinker is 100 tons/hour.

{Permitting note: The maximum rate has been placed in the permit to identify the capacity of the emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.} [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, Application received June 13, 1996.]

D.4. Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [AC27-118680]

D.5. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition **D.15.**
[Rule 62-297.310(2), F.A.C.]

D.6. Method of Operation. The emissions unit receives clinker from railcars and trucks from a below-grade receiving hopper and transfers the clinker using a belt conveyor and a deep-bucket conveyor system.
[Rule 62-213.410, F.A.C.; and, AC27-118680]

Emission Limitations

D.7. Particulate Matter. The allowable particulate matter emissions from the clinker handling system shall not exceed 0.7 lb/hr.
[AC27-118680]

D.8. Visible Emissions. Visible emissions shall not exceed 10 percent opacity. Compliance with the particulate matter emissions limit in Specific Condition **D.7.** shall be assumed if the visible emissions limit in this condition is met.

However, if visible emissions exceed 10 percent opacity, then the owner or operator shall install hoods, ducts, and air pollution control equipment that will reduce the particulate matter emissions to the standard listed in Specific Condition **D.7.**
[AC27-118680; and, 40 CFR 63.1348]

Excess Emissions

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS or NESHAP provision.}

D.9. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

D.10. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

D.11. Particulate Matter. Particulate matter emissions shall be demonstrated using EPA Method 5 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. See Specific Conditions **D.7.** and **D.8.**

[Rules 62-204.800 and 62-297.401, F.A.C.]

D.12. Visible Emissions. Visible emissions shall be demonstrated annually using DER Method 9 pursuant to Chapter 62-297, F.A.C. See Specific Conditions **D.8.**, **D.13.** and **D.19.**

[AC27-118680; Rule 62-297.401, F.A.C.; and, 40 CFR 63.1349(b)(2)]

D.13. DER Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

1. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.

2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:

a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.

b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value.
[Rule 62-297.401, F.A.C.]

D.14. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which

the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

D.15. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

D.16. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

D.17. Applicable Test Procedures.

(a) **Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) **Minimum Sample Volume.** Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

- (c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (attached).
- (e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]

D.18. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.]

D.19. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or, 100 tons per year or more of any other regulated air pollutant; and,

c. Each NESHAP pollutant, if there is an applicable emission standard.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C.; and, 40 CFR 63.1349(c)]

D.20. The owner or operator of an affected emissions unit subject to 40 CFR 63, Subpart LLL, shall demonstrate initial compliance with the emission limits of 40 CFR 63.1348 (See Specific Condition **D.8.**) using the test methods and procedures in paragraph 40 CFR 63.1349(b) and 40 CFR 63.7. Performance test results shall be documented in complete test reports that contain the information required by paragraphs 40 CFR 63.1349(a)(1) through (a)(10), as well as all other relevant information. The plan to be followed during testing shall be made available to the Administrator prior to testing, if requested.

- (1) A brief description of the process and the air pollution control system;
- (2) Sampling location description(s);
- (3) A description of sampling and analytical procedures and any modifications to standard procedures;
- (4) Test results;
- (5) Quality assurance procedures and results;
- (6) Records of operating conditions during the test, preparation of standards, and calibration procedures;
- (7) Raw data sheets for field sampling and field and laboratory analyses;
- (8) Documentation of calculations;
- (9) All data recorded and used to establish parameters for compliance monitoring; and
- (10) Any other information required by the test method.

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1349(a)]

Monitoring of Operations

D.21. Determination of Process Variables.

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in

conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

D.22.(a) The owner or operator of each Portland cement plant shall prepare for each affected emissions unit subject to the provisions of 40 CFR 63, Subpart LLL, a written operations and maintenance plan. Appendix O & M (Operation & Maintenance Plan) is a part of this permit and this subsection. The plan shall be submitted to the Administrator for review and approval as part of the application for a 40 CFR Part 70 permit and shall include the following information:

(1) Procedures for proper operation and maintenance of the affected emissions unit and air pollution control devices in order to meet the emission limits and operating limits of 40 CFR 63.1348 (See Specific Condition **D.8.**); and

(4) Procedures to be used to periodically monitor affected emissions units subject to opacity standards under 40 CFR 63.1348 (See Specific Condition **D.8.**). Such procedures must include the provisions of paragraphs 40 CFR 63.1350(a)(4)(i) through (a)(4)(iv).

(i) The owner or operator must conduct a monthly 1-minute visible emissions test of each affected emissions unit in accordance with Method 22 of Appendix A, 40 CFR Part 60. The test must be conducted while the affected emissions unit is in operation.

(ii) If no visible emissions are observed in six consecutive monthly tests for any affected emissions unit, the owner or operator may decrease the frequency of testing from monthly to semi-annually for that affected emissions unit. If visible emissions are observed during any semi-annual test, the owner or operator must resume testing of that affected emissions unit on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

(iii) If no visible emissions are observed during the semi-annual test for any affected emissions unit, the owner or operator may decrease the frequency of testing from semi-annually to annually for that affected emissions unit. If visible emissions are observed during any annual test, the owner or operator must resume testing of that affected emissions unit on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

(iv) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a 6-minute test of opacity in accordance with Method 9 of Appendix A, 40 CFR Part 60. The Method 9 test must begin within one hour of any observation of visible emissions.

(b) Failure to comply with any provision of the operations and maintenance plan developed in accordance with paragraph 40 CFR 63.1350(a) shall be a violation of the standard.

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1350(a)(1) & (4) and (b)]

D.23. The owner or operator of an affected emissions unit subject to a limitation on opacity under 40 CFR 63.1348 (See Specific Condition **D.8.**) shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with paragraph 40 CFR 63.1350(a). See Specific Condition **D.22.**
[Rule 62-206.800, F.A.C.; and, 40 CFR 63.1350(j)]

Notification, Recordkeeping and Reporting Requirements

D.24. Notification requirements.

- (a) The notification provisions of 40 CFR 63, Subpart A, are contained in Appendix 40 CFR 63, Subpart A, and are applicable. If any State requires a notice that contains all of the information required in a notification listed in 40 CFR 63.1353, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of 40 CFR 63.1353 for that notification.
- (b) Each owner or operator subject to the requirements of 40 CFR 63, Subpart LLL shall comply with the notification requirements in 40 CFR 63.9 as follows:
- (1) Initial notifications as required by 40 CFR 63.9(b) through (d). For the purposes of 40 CFR 63, Subpart LLL, a Title V or 40 CFR Part 70 permit application may be used in lieu of the initial notification required under 40 CFR 63.9(b), provided the same information is contained in the permit application as required by 40 CFR 63.9(b), and the State to which the permit application has been submitted has an approved operating permit program under 40 CFR Part 70 of this chapter and has received delegation of authority from the EPA. Permit applications shall be submitted by the same due dates as those specified for the initial notification.
 - (2) Notification of performance tests, as required by 40 CFR 63.7 and 63.9(e).
 - (3) Notification of opacity and visible emission observations required by 40 CFR 63.1349 in accordance with 40 CFR 63.6(h)(5) and 63.9(f).
 - (4) Reserved.
 - (5) Notification of compliance status, as required by 40 CFR 63.9(h).
- [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1353(a) and (b)(1), (2), (3) & (5)]

D.25. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

D.26. Reporting requirements.

(a) The reporting provisions of 40 CFR 63, Subpart A, are contained in Appendix 40 CFR 63, Subpart A, and are applicable. If any State requires a report that contains all of the information required in a report listed in 40 CFR 63.1354, the owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of 40 CFR 63.1354 for that report.

(b) The owner or operator of an affected source shall comply with the reporting requirements specified in 40 CFR 63.10 of the general provisions of 40 CFR Part 63, Subpart A, as follows:

- (1) As required by 40 CFR 63.10(d)(2), the owner or operator shall report the results of performance tests as part of the notification of compliance status.
- (2) As required by 40 CFR 63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by 40 CFR 63.1349.
- (3) As required by 40 CFR 63.10(d)(4), the owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under 40 CFR 63.6(i) shall submit such reports by the dates specified in the written extension of compliance.
- (4) As required by 40 CFR 63.10(d)(5), if actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan specified in 40 CFR 63.6(e)(3), the owner or operator shall state such information in a semiannual report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report may be submitted simultaneously with the excess emissions and continuous monitoring system performance reports; and
- (5) Any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the owner or operator shall make an immediate report of the actions taken for that event within 2 working days, by telephone call or facsimile (FAX) transmission. The immediate report shall be followed by a letter, certified by the owner or operator or other responsible official, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1354(a) and (b)(1) thru (5)]

D.27. Recordkeeping Requirements.

(a) The owner or operator shall maintain files of all information (including all reports and notifications) required by 40 CFR 63.1355 recorded in a form suitable and readily available for inspection and review as required by 40 CFR 63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent five years of data shall be retained on site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.

(b) The owner or operator shall maintain records for each affected source as required by 40 CFR 63.10(b)(2) and (b)(3); and

- (1) All documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9;
- (2) All records of applicability determination, including supporting analyses; and
- (3) If the owner or operator has been granted a waiver under 40 CFR 63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements.

[Rules 62-204.800 and 62-213.440, F.A.C.; and, 40 CFR 63.1355(a) and (b)]

D.28. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.

16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

Miscellaneous

D.29. Delegation of Authority.

- (a) In delegating implementation and enforcement authority to a State under Subpart E of 40 CFR Part 63, the authorities contained in paragraph 40 CFR 63.1358(b) shall be retained by the Administrator and not transferred to a State.
- (b) Authority which will not be delegated to States:
 - (1) Approval of alternative non-opacity emission standards under 40 CFR 63.6(g).
 - (2) Approval of alternative opacity standards under 40 CFR 63.6(h)(9).
 - (3) Approval of major changes to test methods under 40 CFR 63.7(e)(2)(ii) and 63.7(f). A major change to a test method is a modification to a federally enforceable test method that uses unproven technology or procedures or is an entirely new method (sometimes necessary when the required test method is unsuitable).
 - (4) Approval of major changes to monitoring under 40 CFR 63.8(f). A major change to monitoring is a modification to federally enforceable monitoring that uses unproven technology or procedures, is an entirely new method (sometimes necessary when the required monitoring is unsuitable), or is a change in the averaging period.
 - (5) Waiver of recordkeeping under 40 CFR 63.10(f)

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1358(a) and (b)]

D.30. A water spray system shall be installed and used as necessary to control fugitive dust emissions during clinker unloading operations from train cars or trucks to the receiving hopper.
[AC27-118680]

Subsection E. This section addresses the following emissions unit.

Brooksville Cement Plant I	
E.U. ID No./Facility ID No.	Brief Description
-020/	Cement Kiln I, In-Line Kiln/Raw Mill and Clinker Cooler I with Baghouse

The cement plant is designed for 1800 tons/day of cement clinker product. Electrical power and heat is supplied by a 150 MW power plant (Brooksville Power Plant: Central Power & Lime). The cement kiln I, clinker cooler I and raw mill share a common baghouse fabric filter system (for particulate matter emissions control) and stack with the power plant. Waste heat from the kiln is used to provide heat to the raw mill and the kiln preheater, which is used to drive off moisture from the materials used for making clinker. The movement of raw materials, recycled materials, and product will be through enclosed transfer systems. All gas streams from the various transfer systems will vent through a baghouse system into the ambient air. The existing site is zoned for mining, so limestone and clay used in the production of cement will be supplied on site. The kiln is allowed to fire bituminous coal, distillate and residual fuel oil, on-specification used oil, and shredded and whole tires. Continuous monitors are operated for opacity, NO_x, SO₂, and O₂; in addition, a flow monitor is required in association with the NO_x CEM. The stack height is 300 feet, with an exit diameter of 16.0 feet and an exit temperature of 220° F. The actual volumetric flow rate is 577,700 acfm; and, the maximum dry standard flow rate is 376,796 dscfm.

{Permitting note: This emissions unit activity is regulated under Rules 62-212.400 and 62-212.410, F.A.C., Prevention of Significant Deterioration (PSD-FL-091, -091A, B, C & D) and Best Available Control Technology, respectively; Power Plant Siting: PA 82-17; 40 CFR 60, Subpart F, Standards of Performance for Portland Cement Plants, adopted in Rule 62-204.800, F.A.C.; and, 40 CFR 63, Subpart LLL, National Emissions Standards for Hazardous Air Pollutants from Portland Cement Manufacturing Industry, adopted in Rule 62-204.800, F.A.C., by June 10, 2002.}

General

E.0. The following Specific Conditions are in effect until midnight of June 9, 2002.

Essential Potential to Emit (PTE) Parameters

E.1. Permitted Capacity.

- a. For the cement kiln I, the maximum dry feed rate to the kiln is 127.0 tons/hour (138.0 tons/hour feed rate to the preheater).
 - b. For the clinker cooler I, the maximum clinker production rate is 83.0 tons/hour.
 - c. For the raw mill, the maximum processing rate is 138 tons/hour (dry basis).
- [AC27-61016/PSD-FL-091; Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, Application received June 13, 1996.]

E.2. Hours of Operation.

- a. The emissions units are allowed to operate continuously, i.e., 8,760 hours/year.
- b. Shredded and whole tire (TDF) utilization shall not exceed 8,300 hours/year.
 [AC27-61016/PSD-FL-091; AC27-118674/PSD-FL-091A & B; and, AC27-222095/PSD-FL-091C]

E.3. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition E.19.
 [Rule 62-297.310(2), F.A.C.]

E.4. Methods of Operation - Fuels.

- a. The only fuels allowed to be fired are coal, No. 2 distillate fuel oil, residual fuel oil, "on-specification" used oil, and TDF.
- b. The maximum coal consumption in the cement kiln is 10.3 tons/hour.
- c. The new No. 2 fuel oil shall be used for the cement kiln's startup/preheating operation.
- d. "On-specification" used oil is allowed to be fired as a blend with purchased fuel oil as a startup fuel only. The maximum on-specification used oil in the final storage tank blend of on-specification used oil and purchased oil shall not exceed 15%, by volume.
- e. The cement kiln I's maximum utilization/firing rate of TDF shall not exceed 15.0 percent of the total Btu heat input, or 1.33 tons/hour. The TDF may be introduced at the base of the preheater (i.e., kiln's inlet). The firing of the TDF shall not commence or be conducted unless the kiln has reached an operating temperature, which shall be measured at the cement kiln's inlet, of at least 1400° F for one hour and the oxygen level in the kiln, as measured at the cement plant's induced draft fan, is at least 3 percent (1-hour average).
 [Rule 62-213.410, F.A.C.; AC27-61016/PSD-FL-091; AC27-118674/PSD-FL-091A & B; and, AC27-222095/PSD-FL-091C & D]

Emission Limitations

E.5. Particulate Matter (PM), Sulfur Dioxide (SO₂) and Nitrogen Oxides (NO_x). Based on a maximum preheater feed rate of 123.8 tons/hr and when only the cement plant I is in operation, the allowable pollutant emissions from the cement kiln I and/or clinker cooler I (from the main baghouse stack) shall not exceed the following:

<u>Pollutant</u>	<u>Maximum Emission Limits</u>		<u>Maximum Allowable Emission Limits</u>	
	<u>lb/ton of kiln feed</u>		<u>lbs/hr</u>	<u>tons/yr</u>
PM (kiln I)	0.30		37.1	162
PM (clinker cooler I)	0.10		12.4	54
PM (combined total: kiln I and clinker cooler I)	0.40		49.5	216
SO ₂	0.6		50.0	219
NO _x	2.9		359.0	1572

[AC27-61016/PSD-FL-091 and BACT; AC27-118674; 40 CFR 60.62(a)(1); and, 40 CFR 60.62(b)(1)]

E.6. Visible Emissions. Visible emissions from the cement kiln I, clinker cooler I, or raw mill shall not exceed 10 percent opacity.
[AC27-61016/PSD-FL-091; AC27-118674; and, 40 CFR 60.62(b)(2)]

E.7. Sulfur Dioxide - Sulfur Content. The maximum sulfur content of virgin fuel oil and/or the blend of on-specification used oil and purchased fuel oil is 1.5%, by weight, for the purpose of preheating the cement kiln.
[AC27-222095/PSD-FL-091D]

E.8. "On-Specification" Used Oil. The burning of "on-specification" used oil is allowed at this facility in accordance with all other conditions of this permit and the following additional conditions:

a. Only "on-specification" used oil generated at the Florida Crushed Stone Company's Gregg Mine and the Central Power and Lime Plant can be blended with the purchased fuel oil, which is to be used only as a startup fuel for preheating the cement kiln. "On-specification" used oil is defined as each used oil delivery that meets the 40 CFR 279 (Standards for the Management of Used Oil) specifications listed below. Used oil that does not meet all of the following specifications is considered "off-specification" oil and shall not be fired.

<u>Constituent/Property</u> *	<u>Allowable Level</u>
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash Point	140 °F minimum

* As determined by approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods).

b. Permittee agrees that the used oil to be blended and burned at this facility shall not be a hazardous waste as defined in Rule 62-210.200, F.A.C., or 40 CFR Part 261, and will not include fuels or blended fuels consisting in whole or part of hazardous waste or which include mixtures of any solid waste generated from the treatment, storage, or disposal of hazardous waste, and such burning shall be in compliance with Section 403.769(3), F.S.
[AC27-222095/PSD-FL-091D; and, 40 CFR 279.11]

Excess Emissions

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS, NESHAP, or Acid Rain program provision.}

E.9. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

E.10. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

E.11. Opacity Excess Emissions. For the purpose of reports under 40 CFR 60.65, periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity exceeds 10% opacity. See Specific Conditions **E.6.** and **E.37.**
[Rule 62-204.800, F.A.C.; and, 40 CFR 60.63(d)]

Test Methods and Procedures

E.12. PM, NO_x, SO₂, and Visible Emissions. The permittee shall annually conduct:

- a. Performance tests on the main stack for PM, NO_x, SO₂, and visible emissions:
- (1) during normal operations when the power plant and cement plant I are operating in combination; and,
 - (2) at or near maximum production when the cement plant I is operating alone.

[PSD-FL-090 and PSD-FL-091; PA 82-17E; and, Rule 62-297.310(7), F.A.C.]

E.13. Particulate Matter. Performance tests for PM shall be demonstrated using EPA Method 5 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. The emissions rate, E, of PM shall be computed for each run using the following equation (Equation 1; also, see Specific Conditions **E.5.** & **E.12.**):

$$E = (c_s \times Q_{sd}) / P \times K \quad \text{(Equation 1)}$$

Where: E = emissions rate of PM, kg/metric ton (lb/ton) of kiln feed.

c_s = concentration of PM, g/dscm (g/dscf), as determined by Method 5.

Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr), as determined by Method 5.

P = total kiln feed (dry basis) rate, metric ton/hr (ton/hr), as confirmed by material balance over the production system.

K = conversion factor 1000g/kg (453.6 g/lb).

The sampling time and sampling volume for each run shall be at least 60 minutes and 0.85 dscm (30.0 dscf) for the kiln and at least 60 minutes and 1.15 dscm (40.6 dscf) for the clinker cooler.

[Rules 62-204.800 & 62-297.401, F.A.C.; 40 CFR 60.64(b)(1) thru (3); AC27-61016/PSD-FL-091; and, AC27-118674]

E.14. Visible Emissions.

a. Visible emissions shall be demonstrated using EPA Method 9 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. See Specific Conditions E.6. & E.12.

[Rules 62-204.800 & 62-297.401, F.A.C.; and, 40 CFR 60.64(4)]

E.15. Sulfur Dioxide. Compliance with the sulfur dioxide emission limits in Specific Condition E.5. shall be demonstrated using EPA Method 6 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C.

[Rule 62-297.401, F.A.C.; AC27-61016/PSD-FL-091; and, AC27-118674]

E.16. Nitrogen Oxide. Compliance with the nitrogen oxide emission limits in Specific Condition E.5. shall be demonstrated using EPA Method 7 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C.

[Rule 62-297.401, F.A.C.; AC27-61016/PSD-FL-091; and, AC27-118674]

E.17. On-specification Used Oil. Fuel analysis shall be in accordance with 40 CFR 266.43(b)(1) & (6). A sample shall be taken from the outlet of the blend tank on the first working day (i.e., Monday - Friday; exceptions: holidays) of each month, if any used oil was placed in the blend tank the previous month; or, the sample can be taken directly from the used oil mobile collection tank after final collection and prior to the time of initial transfer; but, that sampling frequency shall be no less than quarterly and the sampling methodology shall have been established with the Department and Hernando County prior to sampling. Upon taking a sample, the sample shall be analyzed for the following constituent/property and associated unit and using the following test methods (or their latest version):

<u>Constituent/Property</u> *	<u>Unit</u>	<u>Test Method</u>
Arsenic	ppm	EPA SW-846 (3040-7130)
Cadmium	ppm	EPA SW-846 (3040-7130)
Chromium	ppm	EPA SW-846 (3040-7130)
Lead	ppm	EPA SW-846 (3040-7130)
Total Halogens	ppm	ASTM E442
Sulfur	%	ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 & ASTM D129-91
Flash Point	°F	ASTM D93
Heat of Combustion	Btu/gal	ASTM D240-76
Density	lbs/gal	ASTM D1298-80

Note: Other test methods may be used only after receiving written approval from the Department.
[AC27-222095 and PSD-FL-091D]

E.18. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

E.19. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

E.20. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

E.21. Applicable Test Procedures.

(a) **Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

- c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- (b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (attached).
- (e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]

E.22. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.]

E.23. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

- (a) General Compliance Testing.
3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
- a. Did not operate; or
 - b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
- a. Visible emissions, if there is an applicable standard;
 - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or 100 tons per year or more of any other regulated air pollutant; and,
 - c. Each NESHAP pollutant, if there is an applicable emission standard.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C.; and, AC27-118674]

Monitoring of Operations

E.24. Determination of Process Variables.

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

E.25. Instruments shall be installed, calibrated, and maintained to continuously measure the amounts of coal used in the kiln, materials fed to the kiln, and clinker produced.

[AC27-61016/PSD-FL-091; and, AC27-118674]

E.26. The utilization/firing rate of TDF shall be quantified (weighed) continuously and recorded.

[AC27-222095 and PSD-FL-091C]

E.27. Nitrogen Oxide. The owner or operator shall continuously monitor NO_x concentrations in the stack gases in the CPL (cement, power, and lime) main plant stack, and convert the same to a mass emission rate (lb/hr on a 1-hour average) using a FDEP approved conversion factor. Within 6 months following EPA promulgation of final regulations on continuous emission monitoring (40 CFR Part 75), a flow monitor and NO_x emission monitor (EPA-approved or equivalent) shall be installed in the CPL main plant stack to continuously measure the stack gas flow rate and NO_x concentration. The monitors shall be maintained and calibrated periodically to insure adequate data. The data shall be recorded on an hourly basis and used in the determination of NO_x stack emissions.

[AC27-222095 and PSD-FL-091C; and, 40 CFR 60, Appendix B]

E.28. The owner or operator shall install, calibrate, maintain, and operate in accordance with 40 CFR 60.13 a continuous opacity monitoring system to measure the opacity of emissions from the cement kiln and clinker cooler control device stack. The calibration of the continuous monitoring system shall be in accordance with 40 CFR 60, Appendix B, Performance Specification 1.

[Rule 62-296.800, F.A.C.; 40 CFR 60, Appendix B; and, 40 CFR 60.63(b)]

E.29. The owner or operator shall install, calibrate, maintain, and operate a continuous emissions monitoring system to measure SO₂ emissions from the cement kiln and clinker cooler control device stack. The calibration of the continuous monitoring system shall be in accordance with 40 CFR 60, Appendix B, Performance Specification 2.

[Rule 6204.070(3), F.A.C.; 40 CFR 60, Appendix B; and, AO27-231888A]

E.30. The owner or operator shall install, calibrate, maintain, and operate a continuous emissions monitoring system to measure O₂ emissions in the cement kiln and clinker cooler control device stack. The calibration of the continuous monitoring system shall be in accordance with 40 CFR 60, Appendix B, Performance Specification 3.

[Rule 62-4.070(3), F.A.C.; 40 CFR 60, Appendix B; and, AC27-222095]

Recordkeeping and Reporting Requirements

E.31. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

E.32. The records of fuel usage with the fuel analysis and the daily production rates (including clinker production rate) and kiln feed rates shall be recorded and reported quarterly to the Department's Southwest District office.

[AC27-61016/PSD-FL-091; AC27-118674; and, 40 CFR 60.63(a)]

E.33. The quantity of all deliveries of TDF shall be documented and kept on record/file.

[AC27-222095 and PSD-FL-091C]

E.34. On-specification Used Oil.

- a. The results of each sample analysis shall be submitted to the Department's Southwest District and the Hernando County Planning offices within 30-days after the sample is taken.
- b. The dates and quantities of both on-specification used oil and purchased fuel oil transferred to the cement kiln's storage tank shall be reported quarterly (i.e., Jan.-Mar., April-June, July-Sept., and Oct.-Dec.) to the Department's Southwest District and the Hernando County Planning offices and due during the month following the ending quarter.
[AC27-222095 and PSD-FL-091D]

E.35. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- (b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
 1. The type, location, and designation of the emissions unit tested.
 2. The facility at which the emissions unit is located.
 3. The owner or operator of the emissions unit.
 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
 8. The date, starting time and duration of each sampling run.
 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
 10. The number of points sampled and configuration and location of the sampling plane.
 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
 12. The type, manufacturer and configuration of the sampling equipment used.
 13. Data related to the required calibration of the test equipment.
 14. Data on the identification, processing and weights of all filters used.
 15. Data on the types and amounts of any chemical solutions used.
 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.

17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.

18. All measured and calculated data required to be determined by each applicable test procedure for each run.

19. The detailed calculations for one run that relate the collected data to the calculated emission rate.

20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.

21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

E.36. An Annual Operation Report (AOR) shall be submitted to the Department's Southwest District office by March 1 reporting the kiln's averaged process input rate and clinker production of each month of the previous year. The AOR shall also contain the total amount, separately and by weight, of shredded and whole tires utilized/fired during the previous year.

[AC27-222095 and PSD-FL-091C]

E.37. Each owner or operator required to install a continuous opacity monitoring system under 40 CFR 60.63(b) shall submit reports of excess emissions as defined in 40 CFR 60.63(d). The content of these reports must comply with the requirements in 40 CFR 60.7(c). Notwithstanding the provisions of 40 CFR 60.7(c), such reports shall be submitted semiannually.

[Rule 62-204.800, F.A.C.; and, 40 CFR 60.65(a)]

Miscellaneous

E.38. For PSD tracking purposes only, the potential total hydrocarbon emissions are 22.8 tons/year.

[AC27-222095 and PSD-FL-091C]

Subsection F. This section addresses the following emissions units.

Brooksville Cement Plant I	
E.U. ID No./Facility ID No.	Brief Description
-020/	Cement Kiln I, In-Line Kiln/Raw Mill and Clinker Cooler I with Baghouse

The cement plant is designed for 1800 tons/day of cement clinker product. Electrical power and heat is supplied by a 150 MW power plant (Brooksville Power Plant: Central Power & Lime, Inc.). The cement kiln I, in-line kiln/raw mill and clinker cooler I share a common baghouse fabric filter system (for particulate matter emissions control) and stack with the power plant. Waste heat from the kiln is used to provide heat to the raw mill and the kiln preheater, which is used to drive off moisture from the materials used for making clinker. The movement of raw materials, recycled materials, and product will be through enclosed transfer systems. All gas streams from the various transfer systems will vent through a single baghouse system into the ambient air. The existing site is zoned for mining, so limestone and clay used in the production of cement will be supplied on site. The kiln is allowed to fire bituminous coal, distillate and residual fuel oil, on-specification used oil, and shredded and whole tires. Continuous monitors are operated for opacity, NO_x, SO₂, and O₂. The stack height is 300 feet, with an exit diameter of 16.0 feet and an exit temperature of 220 °F. The actual volumetric flow rate is 577,700 acfm; and, the maximum dry standard flow rate is 376,796 dscfm.

{Permitting note: This emissions unit activity is regulated under Rules 62-212.400 and 62-212.410, F.A.C., Prevention of Significant Deterioration (PSD-FL-091, -091A, B, C & D) and Best Available Control Technology, respectively; Power Plant Siting: PA 82-17; and, 40 CFR 63, Subpart LLL, National Emissions Standards for Hazardous Air Pollutants from Portland Cement Manufacturing Industry, adopted in Rule 62-204.800, F.A.C., by June 10, 2002.}

General

F.0. The following Specific Conditions are in effect beginning at 12:01 a.m. of June 10, 2002. [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1351]

F.1. Exemption From New Source Performance Standards. Except as provided in paragraphs 40 CFR 63.1356(a)(1) and (a)(2), any affected source subject to the provisions of 40 CFR 63, Subpart LLL is exempted from any otherwise applicable new source performance standard contained in 40 CFR Part 60, Subpart F. [Rule 62-204.800, F.A.C.; and, 40 CFR 63.1356]

F.2. Attachment "40 CFR 63, Subpart A" is incorporated by reference.

Essential Potential to Emit (PTE) Parameters

F.3. Permitted Capacity.

- a. For the cement kiln I, the maximum dry feed rate to the kiln is 127.0 tons/hour (138.0 tons/hour feed rate to the preheater).
- b. For the clinker cooler I, the maximum clinker production rate is 83.0 tons/hour.
- c. For the in-line kiln/raw mill, the maximum processing rate is 138 tons/hour (dry basis).
[AC27-61016/PSD-FL-091; Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, Application received June 13, 1996.]

F.4. Hours of Operation.

- a. The emissions units are allowed to operate continuously, i.e., 8,760 hours/year.
- b. Shredded and whole tire (TDF) utilization shall not exceed 8,300 hours/year.
[AC27-61016/PSD-FL-091; AC27-118674/PSD-FL-091A & B; and, AC27-222095/PSD-FL-091C]

F.5. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition **F.22**.
[Rule 62-297.310(2), F.A.C.]

F.6. Methods of Operation - Fuels.

- a. The only fuels allowed to be fired are coal, No. 2 distillate fuel oil, residual fuel oil, "on-specification" used oil, and TDF.
- b. The maximum coal consumption in the cement kiln is 10.3 tons/hour.
- c. The new No. 2 fuel oil shall be used for the cement kiln's startup/preheating operation.
- d. "On-specification" used oil is allowed to be fired as a blend with purchased fuel oil as a startup fuel only. The maximum on-specification used oil in the final storage tank blend of on-specification used oil and purchased oil shall not exceed 15%, by volume.
- e. The cement kiln I's maximum utilization/firing rate of TDF shall not exceed 15.0 percent of the total Btu heat input, or 1.33 tons/hour. The TDF may be introduced at the base of the preheater (i.e., kiln's inlet). The firing of the TDF shall not commence or be conducted unless the kiln has reached an operating temperature, which shall be measured at the cement kiln's inlet, of at least 1400° F for one hour and the oxygen level in the kiln, as measured at the cement plant's induced draft fan, is at least 3 percent (1-hour average).
[Rule 62-213.410, F.A.C.; AC27-61016/PSD-FL-091; AC27-118674/PSD-FL-091A & B; and, AC27-222095/PSD-FL-091C & D]

Emission Standards and Operating Limitations

F.7. Cement Plant: Particulate Matter (PM), Sulfur Dioxide (SO₂) and Nitrogen Oxides (NO_x). Based on a maximum dry feed rate of 127.0 tons/hr to the kiln and when only the cement plant is in operation, the allowable pollutant emissions from the cement kiln I and/or clinker cooler I (from the main baghouse stack) shall not exceed the following:

Pollutant	Maximum Emission Limits	Maximum Allowable Emission Limits	
	lb/ton of kiln feed	lbs/hr	tons/yr
PM (kiln I or in-line kiln/ raw mill)	0.30	37.1	162
PM (clinker cooler I)	0.10	12.4	54
PM (combined total: kiln I or in-line kiln/raw mill and clinker cooler I)	0.40	49.5	216
SO ₂	0.6	50.0	219
NO _x	2.9	359.0	1572

[AC27-61016/PSD-FL-091 and BACT; AC27-118674; 40 CFR 63.1343(a) and (b)(1); and, 40 CFR 63.1345(a)(1)]

F.8. Visible Emissions. Visible emissions from the cement kiln I, clinker cooler I, or in-line kiln/raw mill shall not exceed 10 percent opacity.

[AC27-61016/PSD-FL-091 and BACT; AC27-118674; 40 CFR 63.1343(b)(2); and, 40 CFR 63.1345(a)(2)]

F.9. Sulfur Dioxide - Sulfur Content. The maximum sulfur content of virgin fuel oil and/or the blend of on-specification used oil and purchased fuel oil is 1.5%, by weight, for the purpose of preheating the cement kiln.

[AC27-222095/PSD-FL-091D]

F.10. Dioxins/Furans. No owner or operator of an existing in-line kiln/raw mill shall cause to be discharged into the atmosphere from these affected emissions units, any gases which contain dioxins/furans in excess of 0.40 ng/dscm (1.7×10^{-10} gr/dscf) (TEQ) corrected to seven percent oxygen, when the average of the performance test run average temperatures at the inlet to the particulate control device is 204° C (400° F) or less.

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1343(a) and (b)(3)(ii)]

F.11. "On-Specification" Used Oil. The burning of "on-specification" used oil is allowed at this facility in accordance with all other conditions of this permit and the following additional conditions:

- a. Only "on-specification" used oil generated at the Florida Crushed Stone Company's Gregg Mine and the Central Power and Lime Plant can be blended with the purchased fuel oil, which is

to be used only as a startup fuel for preheating the cement kiln I. "On-specification" used oil is defined as each used oil delivery that meets the 40 CFR 279 (Standards for the Management of Used Oil) specifications listed below. Used oil that does not meet all of the following specifications is considered "off-specification" oil and shall not be fired.

<u>Constituent/Property</u> *	<u>Allowable Level</u>
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash Point	140 °F minimum

* As determined by approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods).

b. Permittee agrees that the used oil to be blended and burned at this facility shall not be a hazardous waste as defined in Rule 62-210.200, F.A.C., or 40 CFR Part 261, and will not include fuels or blended fuels consisting in whole or part of hazardous waste or which include mixtures of any solid waste generated from the treatment, storage, or disposal of hazardous waste, and such burning shall be in compliance with Section 403.769(3), F.S.
[AC27-222095/PSD-FL-091D; and, 40 CFR 279.11]

F.12. Operating Limits for Kilns and In-line Kiln/Raw Mills.

(a) The owner or operator of a kiln subject to a D/F emission limitation under 40 CFR 63.1343 must operate the kiln such that the temperature of the gas at the inlet to the kiln particulate matter control device (PMCD) does not exceed the applicable temperature limit specified in paragraph 40 CFR 63.1344(b). The owner or operator of an in-line kiln/raw mill subject to a D/F emission limitation under 40 CFR 63.1343 must operate the in-line kiln/raw mill, such that,

- (1) When the raw mill of the in-line kiln/raw mill is operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in paragraph 40 CFR 63.1344(b) and established during the performance test when the raw mill was operating is not exceeded.
- (2) When the raw mill of the in-line kiln/raw mill is not operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in paragraph 40 CFR 63.1344(b) and established during the performance test when the raw mill was not operating, is not exceeded.

(b) The temperature limit for affected sources meeting the limits of paragraph 40 CFR 63.1344(a) or paragraphs 40 CFR 63.1344(a)(1) and (a)(2) is determined in accordance with 40 CFR 63.1349(b)(3)(iv).

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1344(a)(1) & (2) and (b)]

Excess Emissions

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS, NESHAP, or Acid Rain program provision.}

F.13. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

F.14. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

{Permitting Note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

F.15. PM, NO_x, SO₂, and Visible Emissions. The permittee shall annually conduct:

- a. Performance tests on the main stack for PM, NO_x, SO₂, and visible emissions:
 - (1) during normal operations when the power plant and cement plant I are operating in combination; and,
 - (2) at or near maximum production when the cement plant I is operating alone.

[PSD-FL-090 and PSD-FL-091; PA 82-17E; and, Rule 62-297.310(7), F.A.C.]

F.16. Initial and Subsequent Performance Testing.

- (a) The owner or operator of an affected emissions unit subject to 40 CFR 63, Subpart LLL, shall demonstrate initial compliance with the emission limits of 40 CFR 63.1343 and 63 CFR 63.1345 (See Specific Conditions **F.7.**, **F.8.** and **F.10.**) using the test methods and procedures in paragraph 40 CFR 63.1349(b) and 40 CFR 63.7. Performance test results shall be documented in complete test reports that contain the information required by paragraphs 40 CFR 63.1349(a)(1) through (a)(10), as well as all other relevant information. The plan to be followed during testing shall be made available to the Administrator prior to testing, if requested.
 - (1) A brief description of the process and the air pollution control system;
 - (2) Sampling location description(s);
 - (3) A description of sampling and analytical procedures and any modifications to standard procedures;
 - (4) Test results;

- (5) Quality assurance procedures and results;
 - (6) Records of operating conditions during the test, preparation of standards, and calibration procedures;
 - (7) Raw data sheets for field sampling and field and laboratory analyses;
 - (8) Documentation of calculations;
 - (9) All data recorded and used to establish parameters for compliance monitoring; and
 - (10) Any other information required by the test method.
- (b) Performance tests to demonstrate initial compliance with 40 CFR 63, Subpart LLL, shall be conducted as specified in paragraphs 40 CFR 63.1349(b)(1) through (b)(3).

(1) The owner or operator of a kiln subject to limitations on particulate matter emissions shall demonstrate initial compliance by conducting a performance test as specified in paragraphs 40 CFR 63.1349(b)(1)(i) through (b)(1)(iii). The owner or operator of an in-line kiln/raw mill subject to limitations on particulate matter emissions shall demonstrate initial compliance by conducting separate performance tests as specified in paragraphs 40 CFR 63.1349(b)(1)(i) through (b)(1)(iii) while the raw mill of the in-line kiln/raw mill is under normal operating conditions and while the raw mill of the in-line kiln/raw mill is not operating. The owner or operator of a clinker cooler subject to limitations on particulate matter emissions shall demonstrate initial compliance by conducting a performance test as specified in paragraphs 40 CFR 63.1349(b)(1)(i) through (b)(1)(iii). The opacity exhibited during the period of the Method 5 of Appendix A, 40 CFR Part 60 performance tests required by paragraph 40 CFR 63.1349(b)(1)(i) shall be determined as required in paragraph 40 CFR 63.1349(b)(1)(v).

(i) EPA Method 5 of Appendix A, 40 CFR Part 60, shall be used to determine PM emissions. Each performance test shall consist of three separate runs under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur (See Specific Condition F.24.). Each run shall be conducted for at least one hour, and the minimum sample volume shall be 0.85 dscm (30 dscf). The average of the three runs shall be used to determine compliance. A determination of the particulate matter collected in the impingers ("back half") of the Method 5 particulate sampling train is not required to demonstrate initial compliance with the PM standards of 40 CFR 63, Subpart LLL. However this shall not preclude the permitting authority from requiring a determination of the "back half" for other purposes.

(ii) Suitable methods shall be used to determine the kiln or in-line kiln/raw mill feed rate, except for fuels, for each run.

(iii) The emission rate, E, of PM shall be computed for each run using Equation 1:

$$E = (c_s Q_{sd}) / P$$

(Equation 1)

Where: E = emission rate of particulate matter, kg/Mg (lb/ton) of kiln feed.

c_s = concentration of PM, kg/dscm (g/dscf), as determined by Method 5.

Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr), as determined by Method 5.

P = total kiln feed (dry basis), Mg/hr (ton/hr), as confirmed by material balance over the production system.

- (v) Except as provided in paragraph 40 CFR 63.1349(b)(1)(vi) the opacity exhibited during the period of the Method 5 performance tests required by paragraph 40 CFR 63.1349(b)(1)(i) shall be determined through the use of a continuous opacity monitor (COM). The maximum six-minute average opacity during the three Method 5 test runs shall be determined during each Method 5 test run, and used to demonstrate initial compliance with the applicable opacity limits of 40 CFR 63.1343(b)(2) or 40 CFR 63.1345(a)(2). See Specific Conditions **F.8.** and **F.15.**
- (3) The owner or operator of an affected source subject to limitations on D/F emissions shall demonstrate initial compliance with the D/F emission limit by conducting a performance test using Method 23 of Appendix A, 40 CFR Part 60. The owner or operator of an in-line kiln/raw mill shall demonstrate initial compliance by conducting separate performance tests while the raw mill of the in-line kiln/raw mill is under normal operating conditions and while the raw mill of the in-line kiln/raw mill is not operating (See Specific Condition **F.22.**).
- (i) Each performance test shall consist of three separate runs; each run shall be conducted under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur (See Specific Condition **F.24.**). The duration of each run shall be at least three hours and the sample volume for each run shall be at least 2.5 dscm (90 dscf). The concentration shall be determined for each run and the arithmetic average of the concentrations measured for the three runs shall be calculated and used to determine compliance.
- (ii) The temperature at the inlet to the kiln or in-line kiln/raw mill PMCD, and where applicable, the temperature at the inlet to the alkali bypass PMCD, must be continuously recorded during the period of the Method 23 test, and the continuous temperature record(s) must be included in the performance test report.
- (iii) One-minute average temperatures must be calculated for each minute of each run of the test.
- (iv) The run average temperature must be calculated for each run, and the average of the run average temperatures must be determined and included in the performance test report and will determine the applicable temperature limit in accordance with 40 CFR 63.1344(b).
- (c) Except as provided in paragraph 40 CFR 63.1349(e), performance tests required under paragraphs 40 CFR 63.1349(b)(1) shall be repeated every five years. See Specific Conditions **F.15.** and **F.26.**
- (d) Performance tests required under paragraph 40 CFR 63.1349(b)(3) shall be repeated every 30 months.
- (e) The owner or operator is required to repeat the performance tests for kilns or in-line kiln/raw mills as specified in paragraphs 40 CFR 63.1349(b)(1) and (b)(3) within 90 days of initiating any significant change in the feed or fuel from that used in the previous performance test. [Rules 62-204.800 and 62-297.310(7)(a)4., F.A.C.; and, 40 CFR 63.1349(a); (b)(1)(i), (ii), (iii) & (v); (b)(3)(i), (ii), (iii) & (iv); (c); (d); and, (e)]

F.17. Visible Emissions.

a. Visible emissions performance testing shall be demonstrated using EPA Method 9 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. See Specific Conditions **F.8.**, **F.15.** and **F.26.**

[Rules 62-204.800, 62-297.310(7) & 62-297.401, F.A.C.]

F.18. Sulfur Dioxide. Compliance with the sulfur dioxide emission limits in Specific Condition **F.7.** shall be demonstrated using EPA Method 6 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. See Specific Conditions **F.15.** and **F.26.**

[Rules 62-297.310(7) & 62-297.401, F.A.C.; AC27-61016/PSD-FL-091; and, AC27-118674]

F.19. Nitrogen Oxide. Compliance with the nitrogen oxide emission limits in Specific Condition **F.7.** shall be demonstrated using EPA Method 7 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. See Specific Conditions **F.15.** and **F.26.**

[Rules 62-297.310(7) & 62-297.401, F.A.C.; AC27-61016/PSD-FL-091; and, AC27-118674]

F.20. On-specification Used Oil. Fuel analysis shall be in accordance with 40 CFR 266.43(b)(1) & (6). A sample shall be taken from the outlet of the blend tank on the first working day (i.e., Monday - Friday; exceptions: holidays) of each month, if any used oil was placed in the blend tank the previous month; or, the sample can be taken directly from the used oil mobile collection tank after final collection and prior to the time of initial transfer; but, that sampling frequency shall be no less than quarterly and the sampling methodology shall have been established with the Department and Hernando County prior to sampling. Upon taking a sample, the sample shall be analyzed for the following constituent/property and associated unit and using the following test methods (or their latest version):

<u>Constituent/Property</u> *	<u>Unit</u>	<u>Test Method</u>
Arsenic	ppm	EPA SW-846 (3040-7130)
Cadmium	ppm	EPA SW-846 (3040-7130)
Chromium	ppm	EPA SW-846 (3040-7130)
Lead	ppm	EPA SW-846 (3040-7130)
Total Halogens	ppm	ASTM E442
Sulfur	%	ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 & ASTM D129-91
Flash Point	°F	ASTM D93
Heat of Combustion	Btu/gal	ASTM D240-76
Density	lbs/gal	ASTM D1298-80

Note: Other test methods may be used only after receiving written approval from the Department.

[AC27-222095 and PSD-FL-091D]

F.21. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

F.22. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

F.23. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

F.24. Applicable Test Procedures.

(a) **Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

- c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- (b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers; the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (attached).
- (e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]

F.25. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.]

F.26. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

- (a) General Compliance Testing.
3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
- a. Did not operate; or
 - b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
- a. Visible emissions, if there is an applicable standard;
 - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or 100 tons per year or more of any other regulated air pollutant; and,
 - c. Each NESHAP pollutant, if there is an applicable emission standard.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C.; 40 CFR 63.1349(c); and, AC27-118674]

Monitoring of Operations

F.27. Determination of Process Variables.

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

F.28. Monitoring Requirements.

(a) The owner or operator of each Portland cement plant shall prepare for each affected emissions unit subject to the provisions of 40 CFR 63, Subpart LLL, a written operations and maintenance plan. Appendix O & M (Operation & Maintenance Plan) is a part of this permit and this subsection. The plan shall be submitted to the Administrator for review and approval as part of the application for a 40 CFR Part 70 permit and shall include the following information:

(1) Procedures for proper operation and maintenance of the affected emissions unit and air pollution control devices in order to meet the emission limits and operating limits of 40 CFR 63.1343 through 40 CFR 63.1348;

- (2) Corrective actions to be taken when required by paragraph 40 CFR 63.1350(e);
- (3) Procedures to be used during an inspection of the components of the combustion system of each kiln and each in-line kiln raw mill located at the facility at least once per year.
- (b) Failure to comply with any provision of the operations and maintenance plan developed in accordance with paragraph 40 CFR 63.1350(a) shall be a violation of the standard.
- (c) The owner or operator of a kiln or in-line kiln/raw mill shall monitor opacity at each point where emissions are vented from these affected sources in accordance with paragraphs 40 CFR 63.1350(c)(1) and (c)(3).
 - (1) The owner or operator shall install, calibrate, maintain, and continuously operate a continuous opacity monitor (COM) located at the outlet of the PM control device to continuously monitor the opacity. The COM shall be installed, maintained, calibrated, and operated as required by Subpart A, general provisions of this 40 CFR Part 63, and according to PS-1 of Appendix B, 40 CFR Part 60.
 - (3) To remain in compliance, the opacity must be maintained such that the 6-minute average opacity for any 6-minute block period does not exceed 20 percent. If the average opacity for any 6-minute block period exceeds 20 percent, this shall constitute a violation of the standard.
- (d) The owner or operator of a clinker cooler shall monitor opacity at each point where emissions are vented from the clinker cooler in accordance with paragraphs 40 CFR 63.1350(d)(1) and (d)(3).
 - (1) The owner or operator shall install, calibrate, maintain, and continuously operate a COM located at the outlet of the clinker cooler PM control device to continuously monitor the opacity. The COM shall be installed, maintained, calibrated, and operated as required by Subpart A, general provisions of 40 CFR Part 63, and according to PS-1 of Appendix B, 40 CFR Part 60.
 - (3) To remain in compliance, the opacity must be maintained such that the 6-minute average opacity for any 6-minute block period does not exceed 10 percent. If the average opacity for any 6-minute block period exceeds 10 percent, this shall constitute a violation of the standard.
- (f) The owner or operator of an affected source subject to a limitation on D/F emissions shall monitor D/F emissions in accordance with paragraphs 40 CFR 63.1350(f)(1) through (f)(6).
 - (1) The owner or operator shall install, calibrate, maintain, and continuously operate a continuous monitor to record the temperature of the exhaust gases from the kiln and in-line kiln/raw mill at the inlet to, or upstream of, the kiln and/or in-line kiln/raw mill PM control devices.
 - (i) The recorder response range must include zero and 1.5 times either of the average temperatures established according to the requirements in 40 CFR 63.1349(b)(3)(iv).
 - (ii) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.
 - (2) The owner or operator shall monitor and continuously record the temperature of the exhaust gases from the kiln and in-line kiln/raw mill at the inlet to the kiln and/or in-line kiln/raw mill PMCD.
 - (3) The three-hour rolling average temperature shall be calculated as the average of 180 successive one-minute average temperatures.

(4) Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute average is added to the previous 179 values to calculate the three-hour rolling average.

(5) When the operating status of the raw mill of the in-line kiln/raw mill is changed from off to on, or from on to off the calculation of the three-hour rolling average temperature must begin anew, without considering previous recordings.

(6) The calibration of all thermocouples and other temperature sensors shall be verified at least once every three months.

(i) The owner or operator of any kiln or in-line kiln/raw mill subject to a D/F emission limit under this subpart shall conduct an inspection of the components of the combustion system of each kiln or in-line kiln raw mill at least once per year.

(k) The owner or operator of an affected source subject to a particulate matter standard under 40 CFR 63.1343 shall install, calibrate, maintain and operate a particulate matter continuous emission monitoring system (PM CEMS) to measure the particulate matter discharged to the atmosphere. The compliance deadline for installing the PM CEMS and all requirements relating to performance of the PM CEMS and implementation of the PM CEMS requirement is deferred pending further rulemaking.

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1350(a)(1), (2) & (3); (b); (c)(1) & (3); (d)(1) & (3); (f); (i); and, (k)]

F.29. Instruments shall be installed, calibrated, and maintained to continuously measure the amounts of coal used in the kiln, materials fed to the kiln, and clinker.

[AC27-61016/PSD-FL-091; and, AC27-118674]

F.30. The utilization/firing rate of TDF shall be quantified (weighed) continuously and recorded. [AC27-222095 and PSD-FL-091C]

F.31. Nitrogen Oxide. The owner or operator shall continuously monitor NO_x concentrations in the stack gases in the CPL (cement, power, and lime) main plant stack, and convert the same to a mass emission rate (lb/hr on a 1-hour average) using a FDEP approved conversion factor. Within 6 months following EPA promulgation of final regulations on continuous emission monitoring (40 CFR Part 75), a flow monitor and NO_x emission monitor (EPA-approved or equivalent) shall be installed in the CPL main plant stack to continuously measure the stack gas flow rate and NO_x concentration. The monitors shall be maintained and calibrated periodically to insure adequate data. The data shall be recorded on an hourly basis and used in the determination of NO_x stack emissions. The calibration of the continuous monitoring system for NO_x shall be in accordance with 40 CFR 60, Appendix B, Performance Specification 2.

[AC27-222095 and PSD-FL-091C; and, 40 CFR 60, Appendix B]

F.32. The owner or operator shall install, calibrate, maintain, and operate in accordance with 40 CFR 60.13 a continuous opacity monitoring system to measure the opacity of emissions from the cement kiln and clinker cooler control device stack. The calibration of the continuous monitoring system shall be in accordance with 40 CFR 60, Appendix B, Performance Specification 1.

[Rule 62-204.800, F.A.C.; 40 CFR 60, Appendix B; and, 40 CFR 63.1350(c)(1)]

F.33. The owner or operator shall install, calibrate, maintain, and operate a continuous emissions monitoring system to measure SO₂ emissions from the cement kiln and clinker cooler control device stack. The calibration of the continuous monitoring system shall be in accordance with 40 CFR 60, Appendix B, Performance Specification 2.

[Rule 62-4.070(3), F.A.C.; 40 CFR 60, Appendix B; and, AO27-231888A]

F.34. The owner or operator shall install, calibrate, maintain, and operate a continuous emissions monitoring system to measure O₂ emissions in the cement kiln and clinker cooler control device stack. The calibration of the continuous monitoring system shall be in accordance with 40 CFR 60, Appendix B, Performance Specification 3.

[Rule 62-4.070(3), F.A.C.; 40 CFR 60, Appendix B; and, AC27-222095]

Notification, Recordkeeping and Reporting Requirements

F.35. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

F.36. The records of fuel usage with the fuel analysis and the daily production rates (including clinker production rate) and kiln feed rates shall be recorded and reported quarterly to the Department's Southwest District office.

[AC27-61016/PSD-FL-091; AC27-118674]

F.37. The quantity of all deliveries of TDF shall be documented and kept on record/file.

[AC27-222095 and PSD-FL-091C]

F.38. On-specification Used Oil.

a. The results of each sample analysis shall be submitted to the Department's Southwest District and the Hernando County Planning offices within 30-days after the sample is taken.

b. The dates and quantities of both on-specification used oil and purchased fuel oil transferred to the cement kiln's storage tank shall be reported quarterly (i.e., Jan.-Mar., April-June, July-Sept., and Oct.-Dec.) to the Department's Southwest District and the Hernando County Planning offices and due during the month following the ending quarter.

[AC27-222095 and PSD-FL-091D]

F.39. Notification requirements.

(a) The notification provisions of 40 CFR 63, Subpart A, are contained in Appendix 40 CFR 63, Subpart A, and are applicable. If any State requires a notice that contains all of the information required in a notification listed in 40 CFR 63.1353, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of 40 CFR 63.1353 for that notification.

(b) Each owner or operator subject to the requirements of 40 CFR 63, Subpart LLL shall comply with the notification requirements in 40 CFR 63.9 as follows:

(1) Initial notifications as required by 40 CFR 63.9(b) through (d). For the purposes of 40 CFR 63, Subpart LLL, a Title V or 40 CFR Part 70 permit application may be used in lieu of the initial notification required under 40 CFR 63.9(b), provided the same information is contained in the permit application as required by 40 CFR 63.9(b), and the State to which the permit application has been submitted has an approved operating permit program under 40 CFR Part 70 of this chapter and has received delegation of authority from the EPA. Permit applications shall be submitted by the same due dates as those specified for the initial notification.

(2) Notification of performance tests, as required by 40 CFR 63.7 and 63.9(e).

(3) Notification of opacity and visible emission observations required by 40 CFR 63.1349 in accordance with 40 CFR 63.6(h)(5) and 63.9(f).

(4) Notification, as required by 40 CFR 63.9(g), of the date that the continuous emission monitor performance evaluation required by 40 CFR 63.8(e) of this part is scheduled to begin.

(5) Notification of compliance status, as required by 40 CFR 63.9(h).

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1353]

F.40. Reporting requirements.

(a) The reporting provisions of 40 CFR 63, Subpart A, are contained in Appendix 40 CFR 63, Subpart A, and are applicable. If any State requires a report that contains all of the information required in a report listed in 40 CFR 63.1354, the owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of 40 CFR 63.1354 for that report.

(b) The owner or operator of an affected source shall comply with the reporting requirements specified in 40 CFR 63.10 of the general provisions of 40 CFR Part 63, Subpart A, as follows:

(1) As required by 40 CFR 63.10(d)(2), the owner or operator shall report the results of performance tests as part of the notification of compliance status.

(2) As required by 40 CFR 63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by 40 CFR 63.1349.

(3) As required by 40 CFR 63.10(d)(4), the owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under 40 CFR 63.6(i) shall submit such reports by the dates specified in the written extension of compliance.

- (4) As required by 40 CFR 63.10(d)(5), if actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan specified in 40 CFR 63.6(e)(3), the owner or operator shall state such information in a semiannual report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report may be submitted simultaneously with the excess emissions and continuous monitoring system performance reports; and
- (5) Any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the owner or operator shall make an immediate report of the actions taken for that event within 2 working days, by telephone call or facsimile (FAX) transmission. The immediate report shall be followed by a letter, certified by the owner or operator or other responsible official, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.
- (6) As required by 40 CFR 63.10(e)(2), the owner or operator shall submit a written report of the results of the performance evaluation for the continuous monitoring system required by 40 CFR 63.8(e). The owner or operator shall submit the report simultaneously with the results of the performance test.
- (7) As required by 40 CFR 63.10(e)(2), the owner or operator of an affected source using a continuous opacity monitoring system to determine opacity compliance during any performance test required under 40 CFR 63.7 and described in 40 CFR 63.6(d)(6) shall report the results of the continuous opacity monitoring system performance evaluation conducted under 40 CFR 63.8(e).
- (8) As required by 40 CFR 63.10(e)(3), the owner or operator of an affected source equipped with a continuous emission monitor shall submit an excess emissions and continuous monitoring system performance report for any event when the continuous monitoring system data indicate the source is not in compliance with the applicable emission limitation or operating parameter limit.
- (9) The owner or operator shall submit a summary report semiannually which contains the information specified in 40 CFR 63.10(e)(3)(vi). In addition, the summary report shall include:
- (i) All exceedances of maximum control device inlet gas temperature limits specified in 40 CFR 63.1344(a) and (b);
 - (ii) All failures to calibrate thermocouples and other temperature sensors as required under 40 CFR 63.1350(f)(7) of 40 CFR 63, Subpart LLL; and
 - (iii) All failures to maintain the activated carbon injection rate, and the activated carbon injection carrier gas flow rate or pressure drop, as applicable, as required under 40 CFR 63.1344(c).
 - (iv) The results of any combustion system component inspections conducted within the reporting period as required under 40 CFR 63.1350(i).
 - (v) All failures to comply with any provision of the operation and maintenance plan developed in accordance with 40 CFR 63.1350(a).

(10) If the total continuous monitoring system downtime for any CEM or any continuous monitoring system (CMS) for the reporting period is ten percent or greater of the total operating time for the reporting period, the owner or operator shall submit an excess emissions and continuous monitoring system performance report along with the summary report.

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1354(a) and (b)(1) thru (10)]

F.41. Recordkeeping Requirements.

(a) The owner or operator shall maintain files of all information (including all reports and notifications) required by 40 CFR 63.1355 recorded in a form suitable and readily available for inspection and review as required by 40 CFR 63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent **five** years of data shall be retained on site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.

(b) The owner or operator shall maintain records for each affected source as required by 40 CFR 63.10(b)(2) and (b)(3); and

(1) All documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9;

(2) All records of applicability determination, including supporting analyses; and

(3) If the owner or operator has been granted a waiver under 40 CFR 63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements.

[Rules 62-204.800 and 62-213.440, F.A.C.; and, 40 CFR 63.1355(a) and (b)]

F.42. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.

2. The facility at which the emissions unit is located.

3. The owner or operator of the emissions unit.

4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.

5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.

6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.

7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
 8. The date, starting time and duration of each sampling run.
 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
 10. The number of points sampled and configuration and location of the sampling plane.
 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
 12. The type, manufacturer and configuration of the sampling equipment used.
 13. Data related to the required calibration of the test equipment.
 14. Data on the identification, processing and weights of all filters used.
 15. Data on the types and amounts of any chemical solutions used.
 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
 18. All measured and calculated data required to be determined by each applicable test procedure for each run.
 19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
 20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
 21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.
- [Rules 62-213.440 and 62-297.310(8), F.A.C.]

F.43. An Annual Operation Report (AOR) shall be submitted to the Department's Southwest District office by March 1 reporting the kiln's averaged process input rate and clinker production of each month of the previous year. The AOR shall also contain the total amount, separately and by weight, of shredded and whole tires utilized/fired during the previous year.
[AC27-222095 and PSD-FL-091C]

Miscellaneous

F.44. Delegation of Authority.

(a) In delegating implementation and enforcement authority to a State under Subpart E of 40 CFR Part 63, the authorities contained in paragraph 40 CFR 63.1358(b) shall be retained by the Administrator and not transferred to a State.

(b) Authority which will not be delegated to States:

- (1) Approval of alternative non-opacity emission standards under 40 CFR 63.6(g).
- (2) Approval of alternative opacity standards under 40 CFR 63.6(h)(9).
- (3) Approval of major changes to test methods under 40 CFR 63.7(e)(2)(ii) and 63.7(f). A major change to a test method is a modification to a federally enforceable test method that uses unproven technology or procedures or is an entirely new method (sometimes necessary when the required test method is unsuitable).
- (4) Approval of major changes to monitoring under 40 CFR 63.8(f). A major change to monitoring is a modification to federally enforceable monitoring that uses unproven technology or procedures, is an entirely new method (sometimes necessary when the required monitoring is unsuitable), or is a change in the averaging period.
- (5) Waiver of recordkeeping under 40 CFR 63.10(f)

[Rule 62-204.800, F.A.C.; and, 40 CFR 63.1358(a) and (b)]

F.45. For PSD tracking purposes only, the potential total hydrocarbon emissions are 22.8 tons/year.

[AC27-222095 and PSD-FL-091C]

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Facility ID No.: 0530021

Subsection G. Reserved.

Subsection H. This section addresses the following emissions units.

Brooksville Power Plant/Central Power & Lime, Inc.	
E.U. ID/Facility ID No.	Brief Description
-035/D-38	Limestone Rock Bin with Baghouse
-036/D-31	Contaminated Fly Ash & Filter Dust Bin with Baghouse
-037/D-39	Limestone Screening System with Baghouse
-038/D-13	Limestone Fines Storage Bin with Baghouse
-039/Z-31	Lime Dust Storage Bin with Baghouse

Limestone Rock Bin with Baghouse. This emissions unit is a storage bin for limestone rock. The particulate matter (PM) emissions from the materials being stored are controlled by a low temperature baghouse fabric filter system. The stack height is 100 feet, with an exit diameter of 2.5 feet and an exit temperature of 70 °F. The actual volumetric flow rate is 10,500 acfm.

Contaminated Fly Ash & Filter Dust Bin with Baghouse. This emissions unit is a storage bin for contaminated fly ash and filtered dust. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 200 feet, with an exit diameter of 1.5 feet and an exit temperature of 180 °F. The actual volumetric flow rate is 11,000 acfm.

Limestone Screening System with Baghouse. This emissions unit is the operation of the limestone screening system to size limestone. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 30 feet, with an exit diameter of 2.0 feet and an exit temperature of 150 °F. The actual volumetric flow rate is 3,000 acfm.

Limestone Fines Storage Bin with Baghouse. This emissions unit is the operation of a storage bin for dried limestone fines for the cement plant. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 150 feet, with an exit diameter of 3.5 feet and an exit temperature of 100 °F. The actual volumetric flow rate is 19,000 acfm.

Lime Dust Storage Bin with Baghouse. This emissions unit is a storage bin for lime dust. The PM emissions are controlled by a low temperature baghouse fabric filter system. The stack height is 100 feet, with an exit diameter of 2.5 feet and an exit temperature of 120 °F. The actual volumetric flow rate is 6,300 acfm.

{Permitting note: These emissions units are regulated under Rule 62-297.620(4), F.A.C., Exceptions and Approval of Alternate Procedures and Requirements; Rules 62-212.400 and 62-212.410, F.A.C., Prevention of Significant Deterioration (PSD-FL-090 and PSD-FL-091) and Best Available Control Technology (BACT), respectively; and, Power Plant Siting: PA 82-17.}

Essential Potential to Emit (PTE) Parameters

H.1. Permitted Capacity. The maximum process/transfer/throughput rates are:

E.U. ID No.	Brief Description	Maximum Rate
-035/D-38	Limestone Rock Bin with Baghouse	400 tons/hour
-036/D-31	Contaminated Fly Ash & Filter Dust Bin with Baghouse	100 tons/hour
-037/D-39	Limestone Screening System with Baghouse	160 tons/hour
-038/D-13	Limestone Fines Storage Bin with Baghouse	100 tons/hour
-039/Z-31	Lime Dust Storage Bin with Baghouse	30 tons/hour

{Permitting note: The maximum rates have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; PSD-FL-090 and PSD-FL-091; PA 82-17; and, Application received June 13, 1996.]

H.2. Hours of Operation.

a. The Limestone Rock Bin and Contaminated Fly Ash & Filter Dust Bin operations are allowed to operate continuously, i.e., 8,760 hours/year.

b. The Limestone Screening System, Limestone Fines Storage Bin and Lime Dust Storage Bin operations are allowed to operate 7,884 hours/year.

[AC27-118676, -118681, -091426, -091427, -091429, & -091430]

H.3. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition **H.12.**

[Rule 62-297.310(2), F.A.C.]

H.4. Method of Operation. The emissions units either process or transfer materials used in the injection of limestone for SO₂ control for the power boiler. The fly ash handling system (including transfer and silo storage) will be totally enclosed and vented (including pneumatic system exhaust) through fabric filters.

[Rule 62-213.410, F.A.C.; PA 82-17 and PA 82-17E; and, PSD-FL-090]

Emission Limitations

H.5. Particulate Matter. The maximum allowable particulate matter emissions are:

E.U. ID No.	Brief Description	Maximum Allowable Limits
-035/D-38	Limestone Rock Bin with Baghouse	0.015 gr/acfm; 1.1 lbs/hr; 4.1 TPY
-036/D-31	Contaminated Fly Ash & Filter Dust Bin with Baghouse	0.02 gr/acfm; 1.41 lbs/hr; 5.4 TPY
-037/D-39	Limestone Screening System with Baghouse	0.015 gr/acfm; 0.77 lb/hr; 3.04 TPY
-038/D-13	Limestone Fines Storage Bin with Baghouse	0.015 gr/acfm; 0.77 lb/hr; 3.04 TPY
-039/Z-31	Lime Dust Storage Bin with Baghouse	0.015 gr/acfm; 1.16 lbs/hr; 4.56 TPY

[PSD-FL-090 & PSD-FL-091 and BACT; PA 82-17; and, AC27-118676, -118681, -091426, -091427, -091429, & -091430]

H.6. Visible Emissions. Visible emissions shall not exceed 5 percent opacity, since each emissions unit's potential particulate matter emissions are less than 100 TPY and is equipped with a baghouse control system. As long as the visible emissions do not exceed 5 percent opacity, compliance is assumed for the particulate matter limitations established in Specific Condition **H.5**. See Specific Condition **H.10**.

If the Department has reason to believe that the particulate matter weight emissions standard in Specific Condition **H.5** is not being met, it shall require that compliance be demonstrated by the test method specified in Specific Condition **H.9**.

[Rule 62-297.620(4), F.A.C.; and, AC27-118676, -118681, -091426, -091427, -091429, & -091430]

Excess Emissions

H.7. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

[Rule 62-210.700(1), F.A.C.]

H.8. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

H.9. Particulate Matter. Particulate matter emissions compliance testing shall be demonstrated using EPA Method 5 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. See Specific Conditions **H.5.** and **H.6.**
[Rules 62-204.800 and 62-297.401, F.A.C.]

H.10. Visible Emissions. Visible emissions compliance testing shall be demonstrated annually using EPA Method 9 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C. See Specific Conditions **H.6.** and **H.16.**
[Rules 62-204.800 and 62-297.401, F.A.C.]

H.11. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C.]

H.12. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

H.13. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.]

H.14. Applicable Test Procedures.

(a) **Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) **Minimum Sample Volume.** Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) **Required Flow Rate Range.** For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) **Calibration of Sampling Equipment.** Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (attached).

(e) **Allowed Modification to EPA Method 5.** When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.
[Rule 62-297.310(4), F.A.C.]

H.15. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.]

H.16. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or, 100 tons per year or more of any other regulated air pollutant; and,

c. Each NESHAP pollutant, if there is an applicable emission standard.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.]

Monitoring of Operations

H.17. Determination of Process Variables.

(a) **Required Equipment.** The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) **Accuracy of Equipment.** Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

Recordkeeping and Reporting Requirements

H.18. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

H.19. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.

8. The date, starting time and duration of each sampling run.
 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
 10. The number of points sampled and configuration and location of the sampling plane.
 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
 12. The type, manufacturer and configuration of the sampling equipment used.
 13. Data related to the required calibration of the test equipment.
 14. Data on the identification, processing and weights of all filters used.
 15. Data on the types and amounts of any chemical solutions used.
 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
 18. All measured and calculated data required to be determined by each applicable test procedure for each run.
 19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
 20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
 21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.
- [Rules 62-213.440 and 62-297.310(8), F.A.C.]

Subsection I. This section addresses the following emissions unit.

Brooksville Power Plant/Central Power & Lime, Inc.	
E.U. ID/Facility ID No.	Brief Description
-018	Power Plant Boiler with Dry Limestone Injection Scrubbing followed with a Baghouse System

This emissions unit is a net delivered 150 MW fossil fuel fired boiler with a 320 foot stack. The primary fuel burned is coal, with new distillate No. 2 fuel oil used for startup. Control activity includes dry limestone injection scrubbing followed with a fabric filter baghouse system. The exit diameter is 16 feet and the exit temperature is 300 °F. The volumetric flow rate is 840,000 acfm.

{Permitting note: This emissions unit is regulated under Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with more than 250 million Btu per Hour Heat Input; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD-FL-090 and PSD-FL-090D); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT); and, Power Plant Siting: PA 82-17 and PA 82-17E.}

Essential Potential to Emit (PTE) Parameters

I.1. Permitted Capacity. The heat input rate of the power plant boiler, with or without the cement kiln I operating, shall not exceed the maximum necessary to produce 150 MW (net delivered) of power and shall in no case exceed 1850 MMBtu/hr, maximum three-hour average. [PA 82-17E; and, PSD-FL-090D]

I.2. Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE); and, PA 82-17]

I.3. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition I.30. [Rule 62-297.310(2), F.A.C.]

I.4. Methods of Operation - Fuels.

- a. The primary fuel allowed to be burned is coal.
- b. New distillate No. 2 fuel oil is allowed for startup purposes. Any fuel oil to be fired in the unit shall be "new oil", which means an oil which has been refined from crude oil and not been used.

[Rule 62-213.410, F.A.C.; PSD-FL-090 and PSD-FL-090D; and, PA 82-17 and PA 82-17E]

Emission Limitations and Standards

I.5. Any fuel oil to be fired in the unit shall be “new oil”, which means an oil which has been refined from crude oil and not been used. The quantity of fuel oil used by the boiler shall not cause the allowable emissions limits listed in the table below to be exceeded. Such emissions may be calculated in accordance with the latest edition of AP-42.

Allowable Emissions Limits	
Pollutant	lb/MMBtu
Particulate Matter	0.015
Sulfur Dioxide	0.31
Nitrogen Oxides	0.16
Visible Emissions	Maximum 20 % Opacity

{Permitting note.: This table applies when fuel oil is being fired.}

[PA 82-17]

I.6. Visible Emissions. Visible emissions from the power plant shall not exceed 10 % opacity, 6-minute average, except for one 6-minute period per hour of not more than 17 % opacity.

[PA 82-17 and PA 82-17E; PSD-FL-090 and PSD-FL-090D; and, BACT]

I.7. Particulate Matter (PM/PM10).

a. PM/PM10 emissions from the power plant boiler only or the power plant boiler and lime plant when burning coal shall not exceed 0.0135 pound per MMBtu heat input (25.0 pounds per hour at 1850 MMBtu/hr heat input), averaging time per 40 CFR 60.46.

b. PM/PM10 emissions from the combined cement plant I, lime plant and power plant boiler shall not exceed 0.0135 pound per MMBtu heat input (25.0 pounds per hour at 1850 MMBtu/hr heat input) plus 0.3 pound from cement kiln I and 0.1 pound from clinker cooler I per ton of kiln I's feed (dry basis), averaging time per 40 CFR 60.46.

[PA 82-17 and PA 82-17E; PSD-FL-090 and PSD-FL-090D; and, BACT]

I.8. Sulfur Dioxide (SO₂).

a. SO₂ emissions from the power plant boiler or the power plant boiler and lime plant while burning coal shall not exceed 1.2 pounds per MMBtu heat input, maximum two hour average, and 770 pounds per hour, maximum three hour average.

b. SO₂ emissions from the combined cement plant I, lime plant and power plant boiler shall not exceed 1.2 pounds per MMBtu heat input, maximum two hour average, and 781 pounds per hour, maximum three hour average.

[PA 82-17 and PA 82-17E; PSD-FL-090 and PSD-FL-090D; and, BACT]

I.9. Nitrogen Oxides (NOx).

- a. NOx emissions from the power plant boiler or the power plant boiler and lime plant while burning coal shall not exceed 0.7 pound per MMBtu heat input, averaging time per Chapter 62-297, F.A.C., not to exceed 846 pounds per hour.
- b. NOx emissions from the combined cement plant I, lime plant and power plant boiler shall not exceed 0.7 pound per MMBtu heat input plus 2.9 pounds per ton of kiln I's feed (dry basis), averaging time per Chapter 62-297, F.A.C., not to exceed 1205 pounds per hour.
[PA 82-17 and PA 82-17E; PSD-FL-090 and PSD-FL-090D; and, BACT]

I.10. Total Fluorides. Total fluoride emissions from the combined cement plant I, lime plant and power plant boiler shall not exceed 0.7 pound per hour.
[PSD-FL-090]

I.11. Sulfuric Acid Mist. Sulfuric acid mist emissions from the combined cement plant I, lime plant and power plant boiler shall not exceed 1.7 pounds per hour.
[PSD-FL-090]

I.12. Beryllium. Reserved.
[PSD-FL-090(A) & 091(E); and, 0530021-006-AC]

I.13. Mercury. Mercury emissions from the combined cement plant I, lime plant and power plant boiler shall not exceed 0.03 pound per hour.
[PSD-FL-090]

Excess Emissions

I.14. Excess emissions resulting from startup, shutdown, or malfunction of any emissions unit shall be permitted provided (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

I.15. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

I.16. PM, NO_x, SO₂, and Visible Emissions. The permittee shall annually conduct (See Specific Condition **I.30.**):

- a. Performance tests on the main stack for PM, NO_x, SO₂, and visible emissions:
- (1) during normal operations when the power plant and cement plant I are operating in combination; and,
 - (2) at or near 1,850 MMBtu/hr heat input when the power plant is operating alone.
- [PSD-FL-090 and PSD-FL-091; PA 82-17 and PA 82-17E; and, Rule 62-297.310(7), F.A.C.]

I.17. Visible Emissions.

- a. Compliance with the visible emissions limits in Specific Condition **I.6.** shall be demonstrated in accordance with EPA Method 9 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C.
[Rule 62-297.401, F.A.C.; PA 82-17 and PA 82-17E; PSD-FL-090; and, 40 CFR 60, Appendix A]

I.18. Particulate Matter (PM/PM10). Compliance with the PM/PM10 emissions limits in Specific Condition **I.7.** shall be demonstrated in accordance with EPA Method 5 or 17 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C.
[Rules 62-204.800 and 62-297.401, F.A.C.; 40 CFR 60.46; PA 82-17 and PA 82-17E; PSD-FL-090; and, 40 CFR 60, Appendix A]

I.19. Sulfur Dioxide. Compliance with the SO₂ emissions limits in Specific Condition **I.8.** shall be demonstrated in accordance with EPA Method 6 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C.
[Rule 62-297.401, F.A.C.; PA 82-17 and PA 82-17E; PSD-FL-090; and, 40 CFR 60, Appendix A]

I.20. Nitrogen Oxide. Compliance with the NO_x emissions limits in Specific Condition **I.9.** shall be demonstrated in accordance with EPA Method 7 or 7E pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C.
[Rule 62-297.401, F.A.C.; PA 82-17 and PA 82-17E; PSD-FL-090; and, 40 CFR 60, Appendix A]

I.21. Total Fluorides. Compliance with the fluoride emissions limit in Specific Condition **I.10.** shall be demonstrated, if required by EPA, in accordance with EPA Method 13A or 13B, and 40 CFR 60.8.
[PSD-FL-090; and, 40 CFR 60, Appendix A]

I.22. Sulfuric Acid Mist. Compliance with the sulfuric acid mist emissions limit in Specific Condition **I.11.** shall be demonstrated, if required by EPA, in accordance with EPA Method 8, and 40 CFR 60.8.

[PSD-FL-090; and, 40 CFR 60, Appendix A]

I.23. Beryllium. Reserved.

[PSD-FL-090(A) & 091(E); and, 0530021-006-AC]

I.24. Mercury. Compliance with the mercury emissions limit in Specific Condition **I.13.** shall be demonstrated, if required by EPA, in accordance with EPA Method 101A, and 40 CFR 60.8.

[PSD-FL-090; and, 40 CFR 60, Appendix A]

I.25. EPA Methods 1 and 2 shall be used for determining stack gas velocity when required in Specific Conditions **I.18.** through **I.24.**

[PSD-FL-090; and, 40 CFR 60, Appendix A]

I.26. Performance tests shall be conducted and data reduced in accordance with methods and procedures outlined in 40 CFR 60.46 and Chapter 62-297, F.A.C.

[PA 82-17 and PA 82-17E; and, PSD-FL-090]

I.27. Performance tests shall be conducted under such conditions as the Department shall specify based on representative performance of the facility (See Specific Condition **I.30.**). The permittee shall make available to the Department such records as may be necessary to determine the conditions of the performance tests.

[PA 82-17 and PA 82-17E; and, PSD-FL-090]

I.28. The permittee shall provide 30 days notice of the performance tests or 10 working days for stack tests in order to afford the Department the opportunity to have an observer present.

[PA 82-17]

I.29. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may

accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

I.30. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

I.31. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

I.32. Applicable Test Procedures.

(a) **Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) **Minimum Sample Volume.** Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) **Required Flow Rate Range.** For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) **Calibration of Sampling Equipment.** Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]

I.33. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]

I.34. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid fuel for more than 400 hours other than during startup.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate; or

b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid fuel, other than during startup, for a total of more than 400 hours.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C.; and, SIP approved]

Monitoring of Operations

I.35. Samples of each shipment received of all fuel oil and coal fired shall be taken and an ultimate analysis obtained including the heating value on a moisture free basis. Accordingly, samples shall be taken of each fuel shipment received. Coal sulfur content shall be determined and recorded on a daily basis.

[PA 82-17 and PA 82-17E; and, PSD-FL-090]

I.36. The permittee shall maintain a daily log of the amounts and types of fuel used and copies of the ultimate fuel analyses containing the heating value on a moisture free basis.

[PA 82-17 and PA 82-17E]

I.37. Instruments shall be installed, calibrated and maintained to continuously measure the amounts of coal and limestone used in the power boiler.

[PA 82-17 and PA 82-17E; and, PSD-FL-090]

I.38. Determination of Process Variables.

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

I.39. The permittee shall have available a written plan or procedure that will allow the permittee to monitor emission control equipment efficiency and enable the permittee to return malfunctioning equipment to proper operation as expeditiously as possible.

[PA 82-17 and PA 82-17E; and, PSD-FL-090]

Continuous Monitoring Requirements

I.40. A flue gas oxygen meter shall be operated and maintained to continuously monitor a representative sample of the flue gas. The oxygen monitor shall be used with automatic feedback or manual controls to continuously maintain air/fuel ratio parameters at an optimum.

[PA 82-17 and PA 82-17E; and, PSD-FL-090]

I.41. The permittee shall operate and maintain continuous monitoring devices for the power boiler/cement plant I main stack exhaust for sulfur dioxide and opacity to demonstrate compliance with the pound per hour SO₂ emissions limits and the visible emissions limits, respectively, in Specific Conditions **I.8.** and **I.6.**, respectively. The monitoring devices shall meet the applicable requirements of Rule 62-297.500, F.A.C., 40 CFR 60.45, and 40 CFR 60.13., including certification of each device. The permittee shall provide the Department with 30 days notice on each certification.

[PA 82-17 and PA 82-17E; and, PSD-FL-090]

Recordkeeping and Reporting Requirements

I.42. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

I.43. Submit to the Department a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of five years.

[Rules 62-213.440 and 62-296.405(1)(g), F.A.C.]

I.44. The records of coal and limestone used in the power boiler and fuel analyses shall be reported quarterly to the Department's Southwest District office.
[PA 87-17 and PA 82-17E; and, PSD-FL-090]

I.45. Stack monitoring, fuel usage, and fuel analyses data shall be reported to the Department's Southwest District office and to the Hernando County Health Department on a quarterly basis.
[PA 82-17 and PA 82-17E; and, PSD-FL-090]

I.46. Records of all fuel analyses and the daily log of the amounts and types of fuel used shall be kept for public inspection for a minimum of 5 (five) years after the data are recorded.
[PA 82-17 and PA 82-17E; PSD-FL-090; and, Rule 62-213.440, F.A.C.]

I.47. A written report of the results of all performance tests shall be furnished to the Department within 45 days of completion of the tests.
[PA 82-17 and PA 82-17E; PSD-FL-090; and, Rule 62-297.310(8), F.A.C.]

I.48. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.

10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

Subsection J. This section addresses the following emissions unit/activity.

Brooksville Cement Plant I/Power Plant/Central Power & Lime, Inc.	
E.U. ID/Facility ID No.	Brief Description
-042/	Coal Receiving, Handling and Transfer Activities (fugitives)

Coal Receiving, Handling and Transfer Activities (fugitives). This emissions unit is an activity of receiving, storage, and transferring/conveying 568,300 tons per year of coal to the Florida Crushed Stone Company's cement plant I/power plant (C/P). The coal will be received in unit trains and will be bottom-dumped from moving rail cars through an open elevated trestle to a coal receiving area. From this area, the coal will be moved to a storage area by a bulldozer with the storage pile being shaped and compacted during the transfer. The resulting coal storage area will cover approximately 7.8 acres and will be approximately 10 feet high. The coal storage area will have a capacity of approximately 55,000 tons. The coal will be recovered from the coal storage pile by a rubber tired front-end loader and transferred to a receiving hopper. The maximum daily coal transfer rate from the storage pile to the C/P receiving system will be 1,740 tons per day. From the receiving hopper, the coal will be transferred by covered conveyor belt to a screening system and then to one of five coal bins that will supply the C/P/ plants. Water sprays or chemical wetting agents and stabilizers will be used at the coal receiving area, the coal storage area, and the coal transfer system to control fugitive particulate matter emissions and minimize visible emissions. All conveyors and conveyor transport points will be enclosed to preclude particulate matter emissions (except those directly associated with the coal stacker/reclaimer or emergency stockout stacker/reclaimer or emergency stockout). The inactive coal storage piles will be shaped, compacted and oriented to minimize wind erosion. Water sprays or chemical wetting agents and stabilizers will be applied to the storage piles, handling equipment, etc. during dry periods and as necessary to all coal handling facilities to minimize visible emissions.

{Permitting note: This emissions unit/activity is regulated under Rule 62-210.300, F.A.C., Permits Required; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD-FL-090); and, Power Plant Siting: PA 82-17 and PA 82-17E.}

Essential Potential to Emit (PTE) Parameters

J.1. Hours of Operation. The emissions unit/activity is allowed to operate continuously, i.e., 8,760 hours/year.
[AC27-117650]

J.2. Method of Operation. This emissions unit is an activity of receiving, storage, and transferring/conveying coal to the Florida Crushed Stone's cement plant I/power plant (C/P).
[Rule 62-213.410, F.A.C.]

Emission Limitations

J.3. Visible Emissions. Visible emissions shall not exceed 10 % opacity from the receiving, handling or transferring of coal.
[AC27-117650]

J.4. Water sprays or chemical wetting agents and stabilizers shall be applied to the storage piles, handling equipment, etc. during dry periods and as necessary to all coal handling facilities to minimize visible emissions.
[PSD-FL-090]

J.5. Unconfined Emissions of Particulate Matter.

a. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or, industrially related activities such as loading, unloading, storing or handling, without taking reasonable precautions to prevent such emissions.

b. The permittee shall take reasonable precautions and work practices to prevent fugitive particulate matter emissions at the site, such as the application of water, wetting agents and/or dust suppressants on roads and any construction activity, landscaping or the planting of vegetation, and enclosure or covering of conveyor systems.

[AC27-117650; PSD-FL-090; PA 82-17 and PA 82-17E; and, Rule 62-296.320(4)(c)1. & 3., F.A.C.]

J.6. Water sprays or chemical wetting agents and stabilizers will be used at the coal receiving area, the coal storage area, and the coal transfer system to control fugitive particulate matter emissions.

[PA 82-17 and PA 82-17E; PSD-FL-090; and, Rule 62-296.320(4)(c)3., F.A.C.]

J.7. All conveyors and conveyor transport points will be enclosed to preclude particulate matter emissions (except those directly associated with the coal stacker/reclaimer or emergency stockout stacker/reclaimer or emergency stockout).

[PA 82-17 and PA 82-17E; PSD-FL-090; and, Rule 62-296.320(4)(c)3., F.A.C.]

J.8. The inactive coal storage piles will be shaped, compacted and oriented to minimize wind erosion.

[PSD-FL-090; and, Rule 62-296.320(4)(c)3., F.A.C.]

J.9. A water spray system shall be installed and used as necessary to control fugitive dust emissions during coal unloading operation from train cars to the receiving area.

[AC27-117650; and, Rule 62-296.320(4)(c)3., F.A.C.]

J.10. The following table reflects the total projected/potential particulate matter emissions from the receiving, handling and transferring of coal. Compliance with these particulate matter emission projections will be presumed if the 10% visible emissions limit is met and the work practices are observed:

<u>Activity</u>	<u>lbs/hr</u>	<u>TPY</u>
"Receiving"	0.60	0.03
"Receiving and Storage"		
Transfer	<0.01	0.004
Traffic	0.75	0.81
"Storage to C/P System"		
Transfer	0.01	0.012
Traffic	1.10	2.413
"C/P System"		
Four Transfers	0.01	0.017
Wind Erosion from Storage	0.26	0.056
Total	2.74	3.3

[AC27-117650]

Test Methods and Procedures

J.11. Visible Emissions. Visible emissions shall be demonstrated using DER Method 9 pursuant to Chapter 62-297, F.A.C. See Specific Conditions **J.3.** and **J.12.**

[AC27-117650; Rule 62-297.401, F.A.C.]

J.12. DER Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

1. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.
2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:

- a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.
- b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value. [Rule 62-297.401, F.A.C.]

J.13. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate.
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C.]

Reporting and Record Keeping

J.14. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- (b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed.

Appendix O & M
Operation & Maintenance Plan

FCS

**FLORIDA
CRUSHED STONE
COMPANY**

BROOKSVILLE CEMENT PLANT

OPERATION & MAINTENANCE PLAN STARTUP, SHUTDOWN & MALFUNCTION PLAN

INITIAL PLAN PREPARATION DATE: May 22, 2003

PLAN REVISION NUMBER & DATE: REV. 0, May 22, 2003

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Attachments

This plan provides Standard Operating Procedures (SOP), maintenance schedules, maintenance checklists, monitoring procedures, monitoring schedules, and corrective actions in attachments to the plan.

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Introduction

The National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry (40 CFR 63, Subpart LLL) require the owner or operator of each Portland cement plant to prepare for each affected source a written operations and maintenance plan. The plan must include the following information:

- (1) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emission limits and operating limits of 40 CFR 63.1343 through 63.1348;
- (2) Corrective actions to be taken when required by paragraph 40 CFR 63.1350(e);
- (3) Procedures to be used during an inspection of the components of the combustion system of each in-line kiln and raw mill located at the facility at least once per year; and
- (4) Procedures to be used to periodically monitor affected sources subject to opacity standards under 40 CFR 63.1346 and 63.1348.

The affected sources covered by this plan are designated by 40 CFR 63.1340:

- (1) Each in-line kiln/raw mill
- (2) Each clinker cooler
- (3) Each raw mill
- (4) Each finish mill
- (5) Each raw material dryer
- (6) Each raw material, clinker, or finished product storage bin
- (7) Each conveying system transfer point
- (8) Each bagging system; and
- (9) Each bulk loading or unloading system.

The affected sources and air pollution control devices are specifically described by the Florida Department of Environmental Protection Title V Air Permit No. 0530021-002-AV.

Brooksville Cement Plant I	
E.U. ID No./Facility ID No.	Brief Description
-001/D-75	Filter Dust Bin with Baghouse
-002/D-67	Fly Ash/Equilibrium Catalyst Bin with Baghouse
-004/F-14	Raw Meal Transfer with Baghouse
-006/G-12A & B	Two Blend Silos with Baghouse
-007/H-15	Kiln Feed Surge Bin with Baghouse
-008/S-04	Clinker Receiving/Handling System
-010/L-06 & L-07	Clinker Storage Silo and Finish Mill Storage Silo with Baghouse
-011/L-08	Gypsum and Limestone Bins with Baghouse
-012/M-08	Silo Discharge with Baghouse
No ID/L-03	Clinker Cooler Discharge with Baghouse
-013/N-13	Finish Mill with Baghouse
-014/Q-17	Cement Storage Silos #1 & #2 Discharge System with Baghouse
-015/Q-15	Cement Storage Silos #1 & #2 with Baghouse
-017/D-63	Iron Ore Bin with Baghouse
-019/M-05	Finish Mill Feed Belt with Baghouse
-020/	In-Line Kiln I/Raw Mill and Clinker Cooler I with Baghouse
-021/Z-17	Cement Storage Silo #3 Discharge System with Baghouse
-022/Z-15	Cement Storage Silo #3 with Baghouse
-023/	Cement Storage Silo #4 and Truck Loadout System with Baghouse
-024/Z-18	Cement Storage Silo and Railcar Loadout System with Baghouses

This plan provides Standard Operating Procedures (SOP), maintenance schedules, maintenance checklists, monitoring procedures, monitoring schedules, and corrective actions. This plan also provides a Startup, Shutdown and Malfunction plan, as required by 40 CFR 63.6.

Procedures for Proper Operation and Maintenance of the Affected Source and Air Pollution Control Devices

This section provides procedures for proper operation and maintenance of the affected sources and air pollution control devices in order to meet the emission limits and operating limits of 40 CFR 63.1343 through 63.1348.

At all times, including periods of startup, shutdown, and malfunction, owners or operators shall operate and maintain any affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.

Appropriate parameters of processing or materials handling systems provide a measure of the rate of operations. The operation and maintenance plan includes performance parameters which indicate the rate of operation, process weight throughput, the fuel or other energy source, the materials being processed or other physical or chemical characteristics, as applicable.

The plan includes schedules for the maintenance and inspection of each control device and collection system and a schedule for recording performance parameters of the control devices, collection systems and auxiliary equipment. The performance parameters include such physical, chemical or electrical characteristics as are applicable to the particular emissions unit and which are indicators of the condition, operating rates and efficiencies. The plan contains inspection and maintenance schedules including periodic assessments of the condition of manholes, ducting, breaching, hoods, conveyor and elevator housings, loading sheds and other equipment. Records of inspections, maintenance and performance data of control devices and auxiliary equipment shall be retained by the emissions unit for a minimum of five years and shall be made available to the Department upon request.

Safety is a critical component of plant operation and maintenance, and is not specifically addressed in this plan. Existing site-specific safety procedures supersede any general guidance within this plan.

EU 001/D-75 Filter Dust Bin with Baghouse

Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is a storage bin for fines (dust). Dust from the kiln is collected and either:

1. recycled into the kiln to produce clinker,
2. used as an additive in the production of special cement products, or
3. sold to third parties as a waste stabilizer.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	45 TPH
Process temperature or pressure	475 deg. F (max)
Chemical or physical data on product or raw materials	Filter dust

The material is transferred to the elevated storage bin pneumatically. From the elevated bin, the material is fed by gravity or screw conveyor. The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to the fabric filtering system to meet the emission limits stipulated above.

The level of the material in the bin is measured daily to prevent overfilling. When the bin level approaches full, filling is stopped by the control room operator.

Maintenance of Affected Source

Bins are prone to internal buildup of material, particularly if material is wet or if aeration is inadequate. Periodic inspection (every 1-2 years) and maintenance are necessary.

In order to use a bin for material storage, it must be structurally sound, with no evidence of major deterioration or over stressing. Bins with supports and/or walls that show any signs of having been over-stressed during previous use, or that have been badly deteriorated by corrosion, should be repaired before further use. Deteriorated doors and door frames shall be repaired to prevent possible air leakage during aeration. Regular maintenance will help extend the bin's life. At least annually, a thorough inspection of the entire structure is performed, and repairs are made where necessary.

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a low

temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	D-75
Type of control device	Baghouse
Stack height	125 feet
Exit diameter	2.0 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	6800 acfm
Maximum dry standard flow rate	6686 dscfm
Gas temperature	77° F
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

EU 002/D-67 Fly Ash/Equilibrium Catalyst Bin with Baghouse

Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is a storage bin for fly ash/equilibrium catalyst.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	25 TPH
Process temperature or pressure	Ambient
Chemical or physical data on product or raw materials	Fly ash/Equilibrium catalyst

The material is transferred to the elevated storage bin pneumatically. From the elevated bin, the material is fed by gravity or screw conveyor. The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to the fabric filtering system to meet the emission limits stipulated above.

The level of the material in the bin is measured at least daily to prevent overfilling. When the level of the material in the bin approaches full, filling is stopped by the control room operator.

Maintenance of Affected Source

Bins are prone to internal buildup of material, particularly if material is wet or if aeration is inadequate. Periodic inspection (every 1-2 years) and maintenance are necessary.

In order to use a bin for material storage, it must be structurally sound, with no evidence of major deterioration or over stressing. Bins with supports and/or walls that show any signs of having been over-stressed during previous use, or that have been badly deteriorated by corrosion, should be repaired before further use. Deteriorated doors and door frames shall be repaired to prevent possible air leakage during aeration. Regular maintenance will help extend the bin's life. At least annually, a thorough inspection of the entire structure is performed, and repairs are made where necessary.

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a low temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	D-67
Type of control device	Baghouse
Stack height	125 feet
Exit diameter	2.0 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	4200 acfm
Maximum dry standard flow rate	4130 dscfm
Gas temperature	77° F
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

EU 004/F-14 Raw Meal Transfer with Baghouse

Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is an activity of raw meal being transferred from the raw mill collection cyclones, to an air lift system.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	138 TPH
Process temperature or pressure	>Ambient
Chemical or physical data on product or raw materials	Raw materials

From the raw mill cyclones, the material is fed by air gravity conveyor to an air lift system, which in turn lifts the material to the top of and into the blend silos. This baghouse provides ventilation and dust collection for the air gravity conveyors. The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to the fabric filtering system to meet the emission limits stipulated above.

All conveyor transfer points are totally enclosed. All dust-laden air generated by the material transfer process shall be totally vented to fabric filtering system to meet the emission limits stipulated above.

Maintenance of Affected Source

- Inspect and repair air gravity conveyor housings to prevent leakage.
- Inspect and repair vent ducts to dust collector to prevent leakage.

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a low temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	F-14
Type of control device	Baghouse
Stack height	70 feet
Exit diameter	1.0 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	1200 acfm
Maximum dry standard flow rate	970 dscfm
Gas temperature	180° F
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

EU 006/G-12A & B Two Blend Silos with Baghouse

Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is two blending silos for the raw meal being transferred from the raw mill.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	138 TPH
Process temperature or pressure	>Ambient
Chemical or physical data on product or raw materials	Raw meal

The material is transferred to the silos pneumatically. From the silos, the material is fed by air gravity conveyors. The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to the fabric filtering system to meet the emission limits stipulated above.

The silos are equipped with high level probes and associated alarms to warn of overfilling. The high-level indicators are interlocked with the material filling system such that in the event of a silo approaching an overfilling condition, the material filling system will be automatically shut down.

Maintenance of Affected Source

Silos are prone to internal buildup of material, particularly if material is wet or if aeration is inadequate. Periodic inspection (every 1-2 years) and maintenance are necessary.

In order to use a silo for material storage, it must be structurally sound, with no evidence of major deterioration or over stressing. Deteriorated doors and door frames should be repaired to prevent possible air leakage during aeration. Regular maintenance will help extend the silo's life. Silos need periodic inspection and maintenance, such as cleaning. At least annually, a thorough inspection of the entire structure is performed, and repairs are made where necessary.

Storage silos allow cement plants to stockpile inventory until needed. Buildup on the vessel walls, however, can rob plants of the storage capacity in which they have invested. Buildups slow material flow and decrease the "live" capacity of the vessel. Overcoming these flow problems and recovering storage capacity may require silo cleaning.

Several types of equipment can be used for silo cleaning. One of these operates like an industrial-strength "weed whip," rotating a set of "flails" against the material in the

vessel. The cleaning head is typically inserted through the access port down into the vessel on a pivoting arm.

Any clean-out activity must be carefully controlled to avoid damage to the inner wall, which can reduce flow and cause continuing problems. Steel chain is commonly used for Portland cement or any compacted material where there is no risk of explosion. Nonsparking brass chain is effective for compacted materials where the risk of fire or explosion is present.

Before the cleaning process is initiated, a path for loosened material to leave the vessel must be secured, and the discharge opening must be clear. A transport mechanism at the bottom — a conveyor, a truck, or a loader — is required to avoid buildup below the discharge and blockage of the opening as large quantities of material are removed. In cleaning a plugged silo, the operator starts at the bottom and progresses upward. Wall accumulations are undercut until they fall by their own weight.

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a low temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	G-12
Type of control device	Baghouse
Stack height	240 feet
Exit diameter	3.5 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	17,000 acfm
Maximum dry standard flow rate	13,745 dscfm
Gas temperature	180° F
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

EU 007/H-15 Kiln Feed Surge Bin with Baghouse
Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is an activity of raw meal being transferred from the kiln feed storage silos to the kiln feed surge bin, and then on to the kiln preheater.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	138 TPH
Process temperature or pressure	Ambient
Chemical or physical data on product or raw materials	Kiln feed

The material is transferred to the elevated kiln feed surge bin by air gravity conveyor and bucket elevator. From the elevated bin, the material is fed by air gravity conveyor, to an air lift system, which lifts the material pneumatically to the kiln preheater. The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to the fabric filtering system to meet the emission limits stipulated above.

The bin is equipped with load cells that continually weigh the bin and its contents. If the bin reaches a high level, an alarm flashes and the filling control valves close automatically. This prevents overfilling.

Maintenance of Affected Source

Bins are prone to internal buildup of material, particularly if material is wet or if aeration is inadequate. Periodic inspection (every 1-2 years) and maintenance are necessary.

In order to use a bin for material storage, it must be structurally sound, with no evidence of major deterioration or over stressing. Bins with supports and/or walls that show any signs of having been over-stressed during previous use, or that have been badly deteriorated by corrosion, shall be repaired before further use. Deteriorated doors and door frames shall be repaired to prevent possible air leakage during aeration. Regular maintenance will help extend the bin's life. At least annually, a thorough inspection of the entire structure is to be performed, and repairs are to be made where necessary.

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a medium temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	H-15
Type of control device	Baghouse
Stack height	50 feet
Exit diameter	2.0 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	6000 acfm
Maximum dry standard flow rate	4704 dscfm
Gas temperature	200° F
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device See Attachment 1 – Baghouse Maintenance.

EU 008/S-04 Clinker Receiving/Handling System

Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is an integrated system for handling clinker that includes a below-grade truck unloading hopper, a belt conveyor, and a deep-bucket conveyor. The fugitive particulate matter emissions generated from the transfer of clinker from the receiving hopper to the belt conveyor are controlled using a Johnson-Marsh Dust Suppressant system, which uses a non-ionic wetting agent or water, as necessary, to enhance the wettability of the clinker.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	100 TPH
Process temperature or pressure	Ambient
Chemical or physical data on product or raw materials	Clinker

The loading, unloading, handling, transfer or storage of clinker, which may generate airborne dust emissions, will be carried out in such a manner to prevent or minimize dust emissions. The materials mentioned above shall be adequately wetted prior to and during the loading, unloading and handling operations. Manual or automatic water spraying system shall be provided at all unloading areas, stock piles and material discharge points.

Openings for the passage of conveyors are fitted with adequate flexible seals. Scrapers shall be provided at the turning points of all conveyors to remove dust adhered to the belt surface. Conveyors are arranged to minimize free fall as far as practicable. All receiving hoppers for unloading materials shall be enclosed on three sides above the unloading point. The belt conveyors for handling materials shall be enclosed on top and 2 sides with to eliminate any dust emission due to wind erosion.

Maintenance of Affected Source

- Inspect and adjust all belt conveyors and their skirting rubber and dust seals
- Inspect belt covers and repair or replace as required
- Replace torn or defective conveyor belts to prevent leakage
- Inspect belt scrapers on belt conveyors and adjust, replace worn-out components

Operation of Air Pollution Control Device

An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a wet suppression system. The system is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started.

The spray discharge should be proportional with dust emission. The Dust Suppression System is meant to suppress the dust generated during transfer at feed/discharge points of conveyors. Wetting Agents are chemicals that are added to water to improve the rate at which spray droplets wet dust particles.

This system consists of three main parts.

1. Proportioner units.
2. Spray headers with pipe lines & pumping system.
3. Control units with electrical systems.

Proportioner units include a feed water pump, metering pump, feed water tank, and solutions tanks. The water required for the system is supplied by a feed water pump. The wetting agent, which is in liquid form, is dosed by metering pump as per requirement. Spray headers with pipe lines are provided. The pumping system includes solution pumps, isolating valves, spray nozzles, and pipe lines. The solution pumps are used to supply pressurized water to spray headers. The required quantities of nozzles are used to spray water. Control units with electrical systems consist of sensing units and control panels. The control panels consist of various relays and transformers.

Auto control or manual control governs the system. The water is pumped and at the same time the metering pump doses the proper quantity of chemical. Its inherent design features also make it extremely reliable from a maintenance standpoint. The nozzles have no moving parts.

OPERATIONAL PARAMETERS FOR WET SUPPRESSION

Identification of control device	S-04
Type of control device	Wet suppression
Manufacturer	Johnson-Marsh
Type of chemical used	Water or dust suppressant
Frequency of application	Continuous when operating
Schedule for maintenance and inspection	Semiannually

Maintenance of Air Pollution Control Device

- Check proportioner units.
- Check spray headers with pipe lines & pumping system.
- Check control units with electrical systems.
- Check solutions tanks.
- Check feed water supply.
- Check spray nozzles
- Check nozzles and system components for wear and corrosion.

**EU 010/L-06 & L-07 Clinker Storage Silo and Finish Mill Storage Silo
with Baghouse**

Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is an activity of clinker being transferred into the clinker storage silos.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	83 TPH
Process temperature or pressure	>Ambient
Chemical or physical data on product or raw materials	Clinker

The material is transferred to the silos by a deep bucket conveyor. From the silos, the material is fed by gravity to belt conveyors. The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to a fabric filtering system to meet the emission limits stipulated above.

The silos are measured at least daily to prevent overfilling. If the manual measurements indicate overfilling is imminent, measures are taken by the operations group to prevent overfilling.

Maintenance of Affected Source

Silos are prone to internal buildup of material, particularly if material is wet or if aeration is inadequate. Periodic inspection (every 1-2 years) and maintenance are necessary.

In order to use a silo for material storage, it must be structurally sound, with no evidence of major deterioration or over stressing. Deteriorated doors and door frames shall be repaired to prevent possible air leakage. Regular maintenance will help extend the silo's life. Silos need periodic inspection and maintenance, such as cleaning. At least annually, a thorough inspection of the entire structure is performed, and repairs are made where necessary.

Storage silos allow cement plants to stockpile inventory until needed. Buildup on the vessel walls, however, can rob plants of the storage capacity in which they have invested. Buildups slow material flow and decrease the "live" capacity of the vessel. Overcoming these flow problems and recovering storage capacity may require silo cleaning.

Several types of equipment can be used for silo cleaning. One of these operates like an industrial-strength "weed whip," rotating a set of "flails" against the material in the

vessel. The cleaning head is typically inserted through the access port down into the vessel on a pivoting arm.

Any clean-out activity must be carefully controlled to avoid damage to the inner wall, which can reduce flow and cause continuing problems. Steel chain is commonly used for cement or any compacted material where there is no risk of explosion. Nonsparking brass chain is effective for compacted materials where the risk of fire or explosion is present.

Before the cleaning process is initiated, a path for loosened material to leave the vessel must be secured, and the discharge opening must be clear. A transport mechanism at the bottom — a conveyor, a truck, or a loader — is required to avoid buildup below the discharge and blockage of the opening as large quantities of material are removed. In cleaning, the operator starts at the bottom and progresses upward. Wall accumulations are undercut until they fall by their own weight.

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a medium temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	L-06/L-07
Type of control device	Baghouse
Stack height	200 feet
Exit diameter	1.5 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	2600 acfm
Maximum dry standard flow rate	2038 dscfm
Gas temperature	200° F
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

EU 011/L-08 Gypsum and Limestone Bins with Baghouse

Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is an activity of gypsum and limestone being stored and transferred.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	75 TPH
Process temperature or pressure	Ambient
Chemical or physical data on product or raw materials	Gypsum & limestone

The material is transferred to the elevated storage bins mechanically by bucket elevator and belt conveyor. From the elevated bin, the material is fed by gravity onto belt feeders. The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to the fabric filtering system to meet the emission limits stipulated above.

The bins are measured at least daily and the inventory levels controlled by the control room operator to prevent overfilling.

Maintenance of Affected Source

Bins are prone to internal buildup of material, particularly if material is wet or if aeration is inadequate. Periodic inspection (every 1-2 years) and maintenance are necessary.

In order to use a bin for material storage, it must be structurally sound, with no evidence of major deterioration or over stressing. Bins with supports and/or walls that show any signs of having been over-stressed during previous use, or that have been badly deteriorated by corrosion, should be repaired before further use. Deteriorated doors and door frames shall be repaired to prevent possible air leakage during aeration. Regular maintenance will help extend the bin's life. At least annually, a thorough inspection of the entire structure is performed, and repairs are made where necessary.

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a medium temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	L-08
Type of control device	Baghouse
Stack height	135 feet
Exit diameter	1.5 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	5000 acfm
Maximum dry standard flow rate	3920 dscfm
Gas temperature	200° F
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

EU 012/M-08 Silo Discharge with Baghouse

Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is an activity of clinker, gypsum or limestone being transferred from their silos, to the finish mill feed belt.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	122 TPH
Process temperature or pressure	Ambient
Chemical or physical data on product or raw materials	Clinker, gypsum, & limestone

From the silos, the material is fed by gravity onto belt feeders. The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to the fabric filtering system to meet the emission limits stipulated above.

All conveyor transfer points are totally enclosed. Openings for the passage of conveyors are fitted with adequate flexible seals. Scrapers shall be provided at the turning points of all conveyors to remove dust adhered to the belt surface. Conveyors are arranged to minimize free fall as far as practicable. The opening between the silos and weigh belt of the materials is fully enclosed. All dust-laden air generated by the material transfer process shall be totally vented to fabric filtering system to meet the emission limits stipulated above.

Maintenance of Affected Source

- Inspect and adjust all belt conveyors and their skirting rubber and dust seals
- Replace torn or defective conveyor belts to prevent leakage
- Inspect and repair belt covers and enclosures as required to prevent leakage
- Inspect belt scrapers on belt conveyors and adjust, replace worn-out components

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a low temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	M-08
Type of control device	Baghouse
Stack height	135 feet
Exit diameter	2.5 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	9000 acfm
Maximum dry standard flow rate	8316 dscfm
Gas temperature	100° F
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

EU TBA/L-03 Clinker Cooler Discharge with Baghouse

Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is an activity of clinker being transferred from the clinker cooler.

From the clinker cooler, the clinker is transported by gravity or drag chain conveyor to a deep bucket conveyor. The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to the fabric filtering system to meet the emission limits stipulated above.

All conveyor transfer points are totally enclosed. Openings for the passage of conveyors are fitted with adequate flexible seals. Conveyors are arranged to minimize free fall as far as practicable. All dust-laden air generated by the material transfer process shall be totally vented to fabric filtering system to meet the emission limits stipulated above.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	83 TPH
Process temperature or pressure	>Ambient
Chemical or physical data on product or raw materials	Clinker

Maintenance of Affected Source

- Inspect drag chain housing and deep bucket conveyor covers and repair as required to prevent leakage
- Inspect material transfer chutes and repair as required to prevent leakage
- Inspect dust collector vent ducts and repair as required
- Inspect deep bucket conveyor buckets for holes and repair as required

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a high temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	L-03
Type of control device	Baghouse
Stack height	10 feet
Exit diameter	1.0 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	5100 acfm
Maximum dry standard flow rate	3717 dscfm
Gas temperature	250° F
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

EU 013/N-13 Finish Mill with Baghouse

Emission Limits and Operating Limits

The owner or operator of each new or existing raw mill or finish mill shall not cause to be discharged from the mill sweep or air separator air pollution control devices of these affected sources any gases which exhibit opacity in excess of ten percent.

[40 CFR 63.1347]

Operation of Affected Source

The final process stage includes grinding the clinker and gypsum to produce cement. Grinding mills are equipped with alloy steel grinding balls. The ball mill grinds the clinker into the final product, for distribution and packaging. The mill works in a closed circuit with a dynamic separator which separates cement of the required fineness from that which needs further grinding. The coarse fraction is returned to the mill.

The accuracy and reliability of metering and proportioning of the mill feed components by weight is critical for maintaining product quality and the high energy efficiency of a grinding system. The metering and proportioning equipment for the material feed to the mill is belt weigh feeders.

The plant uses a pulse-jet fabric filter with a high-efficiency separator. The cement dust collected by the fabric filter is restored to the system.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	125 TPH
Process temperature or pressure	>Ambient
Chemical or physical data on product or raw materials	Clinker, gypsum & limestone

Maintenance of Affected Source

Preventive maintenance provides for more productivity through increased uptime. The mill maintenance program reflects the fact that long lead times are required to procure and deliver materials to the site. A target is to maintain a three-month inventory of wear parts and common failure components on-site, to carry a large inventory of spare parts, and to stock two years of certain mechanical, electrical and instrumentation spares.

The inspection and maintenance program includes periodic assessments of the condition of ducting, hoods, conveyors, elevator housings, and other equipment.

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a high temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	N-13
Type of control device	Baghouse
Stack height	70 feet
Exit diameter	5.0 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	40000 acfm
Maximum dry standard flow rate	30892 dscfm
Gas temperature	210° F
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

EU 014/Q-17 Cement Storage Silos #1 & #2 Discharge System with Baghouses

Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is an activity of cement being transferred from silos. This emissions unit includes systems for in-plant distribution to loading areas and to packaging systems.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	300 TPH
Process temperature or pressure	Ambient
Chemical or physical data on product or raw materials	Cement

From the silos, the material is fed by gravity and air gravity conveyors. The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to the fabric filtering system to meet the emission limits stipulated above.

All conveyor transfer points are totally enclosed. All dust-laden air generated by the material transfer process shall be totally vented to fabric filtering system to meet the emission limits stipulated above.

Maintenance of Affected Source

- Inspect air gravity conveyor housings and repair as required to prevent leakage
- Inspect loading spouts for holes and repair as required
- Inspect material transfer chutes for holes and repair as required to prevent leakage
- Inspect dust collector ducting for holes and repair as required
- Inspect control valves for holes and seal deterioration and repair as required to prevent leakage
- Inspect all pneumatic lines for cracks

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a low temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	Q-17
Type of control device	Baghouse
Stack height	50 feet
Exit diameter	1.5 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	3200 acfm
Maximum dry standard flow rate	2671 dscfm
Gas temperature	160° F
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

EU 015/Q-15 Cement Storage Silos #1 & #2 with Baghouse

Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is an activity of cement being pneumatically transferred to two storage silos from the finish mill.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	125 TPH each
Process temperature or pressure	>Ambient
Chemical or physical data on product or raw materials	Cement

The material is transferred to the silos pneumatically. From the silos, the material is fed by gravity to trucks, or pneumatically to railcar loading or to bagging. The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to the fabric filtering system to meet the emission limits stipulated above.

The silos are measured at least daily. The control room operator controls the inventory levels to prevent overfilling.

Maintenance of Affected Source

Silos are prone to internal buildup of material, particularly if material is wet or if aeration is inadequate. Periodic inspection (every 1-2 years) and maintenance are necessary.

In order to use a silo for material storage, it must be structurally sound, with no evidence of major deterioration or over stressing. Deteriorated doors and door frames shall be repaired to prevent possible air leakage during aeration. Regular maintenance will help extend the silo's life. Silos need periodic inspection and maintenance, such as cleaning. At least annually, a thorough inspection of the entire structure is performed, and repairs are made where necessary.

Storage silos allow cement plants to stockpile inventory until needed. Buildup on the vessel walls, however, can rob plants of the storage capacity in which they have invested. Buildups slow material flow and decrease the "live" capacity of the vessel. Overcoming these flow problems and recovering storage capacity may require silo cleaning.

Several types of equipment can be used for silo cleaning. One of these operates like an industrial-strength "weed whip," rotating a set of "flails" against the material in the vessel. The cleaning head is typically inserted through the access port down into the vessel on a pivoting arm.

Any clean-out activity must be carefully controlled to avoid damage to the inner wall, which can reduce flow and cause continuing problems. Steel chain is commonly used for cement or any compacted material where there is no risk of explosion. Nonsparking brass chain is effective for compacted materials where the risk of fire or explosion is present.

Before the cleaning process is initiated, a path for loosened material to leave the vessel must be secured, and the discharge opening must be clear. A transport mechanism at the bottom — a conveyor, a truck, or a loader — is required to avoid buildup below the discharge and blockage of the opening as large quantities of material are removed. In cleaning, the operator starts at the bottom and progresses upward. Wall accumulations are undercut until they fall by their own weight.

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a medium temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	Q-15
Type of control device	Baghouse
Stack height	200 feet
Exit diameter	2.0 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	7400 acfm
Maximum dry standard flow rate	5983 dscfm
Gas temperature	180° F
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

EU 017/D-63 Iron Ore Bin with Baghouse

Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is an activity of iron ore being stored in a bin.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	100 TPH
Process temperature or pressure	Ambient
Chemical or physical data on product or raw materials	Iron ore

The material is transferred to the elevated storage bin by bucket elevator. From the elevated bin, the material is fed by a belt feeder. The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to the fabric filtering system to meet the emission limits stipulated above.

The bin is equipped with a high level probe and a flashing alarm to warn of overfilling. The high-level alarm indicators are interlocked with the material filling line such that in the event of the bin approaching an overfilling condition, an alarm will operate, and the material filling feeder will be stopped.

Maintenance of Affected Source

Bins are prone to internal buildup of material, particularly if material is wet or if aeration is inadequate. Periodic inspection (every 1-2 years) and maintenance are necessary.

In order to use a bin for material storage, it must be structurally sound, with no evidence of major deterioration or over stressing. Bins with supports and/or walls that show any signs of having been over-stressed during previous use, or that have been badly deteriorated by corrosion, shall be repaired before further use. Deteriorated doors and door frames shall be repaired to prevent possible air leakage during aeration. Regular maintenance will help extend the bin's life. At least annually, a thorough inspection of the entire structure is performed, and repairs are made where necessary.

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a low temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	D-63
Type of control device	Baghouse
Stack height	51 feet
Exit diameter	1.5 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	3600 acfm
Maximum dry standard flow rate	2911 dscfm
Gas temperature	180° F
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device
See Attachment 1 – Baghouse Maintenance.

EU 019/M-05 Finish Mill Feed Belt with Baghouse

Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is an activity of transferring clinker, gypsum and limestone to the finish mill.

The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to the fabric filtering system to meet the emission limits stipulated above.

All conveyor transfer points are totally enclosed. Openings for the passage of conveyors are fitted with adequate flexible seals. Scrapers shall be provided at the turning points of all conveyors to remove dust adhered to the belt surface. Conveyors are arranged to minimize free fall as far as practicable. All dust-laden air generated by the material transfer process shall be totally vented to fabric filtering system to meet the emission limits stipulated above.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	120 TPH
Process temperature or pressure	>Ambient
Chemical or physical data on product or raw materials	Clinker

Maintenance of Affected Source

- Inspect and adjust all belt conveyors and their skirting rubber and dust seals
- Inspect belt conveyor covers and repair as required
- Replace torn or defective conveyor belts to prevent spillage
- Inspect material transfer chutes for holes and repair as required to prevent leakage
- Inspect dust collector vent ducts for holes
- Inspect belt scrapers on belt conveyors and adjust, replace worn-out components

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a low temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	M-05
Type of control device	Baghouse
Stack height	29 feet
Exit diameter	2.0 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	9000 acfm
Maximum dry standard flow rate	8820 dscfm
Gas temperature	85° F
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

**EU 020/ In-Line Kiln I/Raw Mill and Clinker Cooler I with Baghouse
Emission Limits and Operating Limits**

40 CFR 63.1343 Standards for kilns and in-line kiln/raw mills.

(a) *General.* The provisions in this section apply to each kiln, each in-line kiln/raw mill, and any alkali bypass associated with that kiln or in-line kiln/raw mill.

(b) *Existing, reconstructed, or new brownfield/major sources.* No owner or operator of an existing, reconstructed or new brownfield kiln or an existing, reconstructed or new brownfield in-line kiln/raw mill at a facility that is a major source subject to the provisions of this subpart shall cause to be discharged into the atmosphere from these affected sources, any gases which:

(1) Contain particulate matter (PM) in excess of 0.15 kg per Mg (0.30 lb per ton) of feed (dry basis) to the kiln. When there is an alkali bypass associated with a kiln or in-line kiln/raw mill, the combined particulate matter emissions from the kiln or in-line kiln/raw mill and the alkali bypass are subject to this emission limit.

(2) Exhibit opacity greater than 20 percent.

(3) Contain D/F in excess of:

(i) 0.20 ng per dscm (8.7×10^{-11} gr per dscf) (TEQ) corrected to seven percent oxygen; or

(ii) 0.40 ng per dscm (1.7×10^{-10} gr per dscf) (TEQ) corrected to seven percent oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204 deg.C (400 deg.F) or less.

(c) *Greenfield/major sources.* Not applicable at time of initial O&M Plan preparation.

(d) *Existing, reconstructed, or new brownfield/area sources.* Not applicable at time of initial O&M Plan preparation.

(e) *Greenfield/area sources.* Not applicable at time of initial O&M Plan preparation.

40 CFR 63.1344 Operating limits for kilns and in-line kiln/raw mills.

(a) The owner or operator of a kiln subject to a D/F emission limitation under 40 CFR 63.1343 must operate the kiln such that the temperature of the gas at the inlet to the kiln particulate matter control device (PMCD) and alkali bypass PMCD, if applicable, does not exceed the applicable temperature limit specified in paragraph (b) of this section. The owner or operator of an in-line kiln/raw mill subject to a D/F emission limitation under 40 CFR 63.1343 must operate the in-line kiln/raw mill, such that:

(1) When the raw mill of the in-line kiln/raw mill is operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in paragraph (b) of this section and established during the performance test when the raw mill was operating is not exceeded.

(2) When the raw mill of the in-line kiln/raw mill is not operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in paragraph (b) of this section and established during the performance test when the raw mill was not operating, is not exceeded.

(3) If the in-line kiln/raw mill is equipped with an alkali bypass, the applicable temperature limit for the alkali bypass, specified in paragraph (b) of this section and established during the performance test when the raw mill was operating, is not exceeded.

(b) The temperature limit for affected sources meeting the limits of paragraph (a) of this section or paragraphs (a)(1) through (a)(3) of this section is determined in accordance with 40 CFR 63.1349(b)(3)(iv).

- (c) Carbon injection – Not applicable at time of initial O&M Plan preparation.
- (d) Carbon injection – Not applicable at time of initial O&M Plan preparation.
- (e) Carbon injection – Not applicable at time of initial O&M Plan preparation.

40 CFR 63.1345 Standards for clinker coolers.

(a) No owner or operator of a new or existing clinker cooler at a facility which is a major source subject to the provisions of this subpart shall cause to be discharged into the atmosphere from the clinker cooler any gases which:

(1) Contain particulate matter in excess of 0.050 kg per Mg (0.10 lb per ton) of feed (dry basis) to the kiln.

(2) Exhibit opacity greater than ten percent.

(b) [Reserved].

40 CFR 63.1347 Standards for raw and finish mills.

The owner or operator of each new or existing raw mill or finish mill at a facility which is a major source subject to the provisions of this subpart shall not cause to be discharged from the mill sweep or air separator air pollution control devices of these affected sources any gases which exhibit opacity in excess of ten percent.

Operation of Affected Source

The cement plant is designed for 1800 tons/day of cement clinker product. The cement kiln I, in-line kiln/raw mill and clinker cooler I share a common baghouse fabric filter system (for particulate matter emissions control) and stack with the power plant. Waste heat from the kiln is used to provide heat to the raw mill and the kiln preheater, which is used to drive off moisture from the materials used for making clinker. The movement of raw materials, recycled materials, and product will be through enclosed transfer systems. All gas streams from the various transfer systems will vent through a single baghouse system into the ambient air. The existing site is zoned for mining, so limestone and clay used in the production of cement will be supplied on site. The kiln is allowed to fire bituminous coal, distillate and residual fuel oil, on-specification used oil, and shredded and whole tires. Continuous monitors are operated for opacity, NO_x, SO₂, and O₂.

In addition to meeting environmental standards, kiln burning stability increases such things as the kiln brick life, refractory life, requires less frequent warm-up times and lowers fuel consumption.

The kiln product (clinker) discharges from the kiln into the clinker cooler. Cooled clinker is then discharged into a conveyor system and carried to storage.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	138 TPH: Raw mill 127 TPH: Kiln preheater 83 TPH: Clinker cooler
Process temperature or pressure	>Ambient
Fuel or fuel mixture	bituminous coal, distillate and residual fuel oil, on-specification used oil, and shredded and whole tires
Chemical or physical data on product	Clinker

Maintenance of Affected Source

The kiln is the main machine in the cement manufacturing process. Kiln repair and maintenance are critical components in assuring the efficiency of the cement manufacturing plant. If not maintained properly, kiln run-time will be reduced, causing substantial economic losses. Maintenance procedures performed according to prescribed instructions will significantly improve the performance of the kiln and increase plant efficiency.

Proper kiln maintenance techniques ensure desirable operating efficiency. Alignment and ovality measurements can help prevent breakdowns. Inspection and maintenance of the clinker cooler are also important.

Plant availability is critical in a continuous process such as cement production, and an important part is implementing maintenance based on predictive maintenance information. High kiln availability can impact the stability of auxiliary equipment – shutdowns can have a “domino effect” on auxiliary equipment.

Vibration analysis and monitoring is a part of the preventive maintenance program. Unplanned maintenance on a continuous process line can result in higher costs per ton of clinker. The use of predictive maintenance techniques allows one planned shutdown per year, with four or five minor stops and starts. Vibration analysis identifies potential problems and corrective actions can be initiated to eliminate the influence on the component from other sources, such as imbalance or misalignment.

Mechanical personnel are aware of the importance of setting up a machine within certain criteria to enable a long, trouble-free mechanical life. When setting up a machine after repairs or installation, ensure that imbalance or pulley wobbles are eliminated. Evaluate clinker cooler fans, simple, inexpensive adjustments can lower the overall vibration levels.

Predictive maintenance can reduce the systematic replacement of components, regardless of their condition. Individual job requests are initiated when there is evidence that a component is deteriorating. This information is used to determine a plan of action to carry out repairs at the most convenient time, allowing lead time for planning and ordering of parts, labor resources.

An effective predictive maintenance program looks at the rate of change over a period of time with a set of machinery components, using specific criteria to assess the various individual components that make up a particular machine. Another benefit of predictive maintenance is inventory stock control of mechanical components.

- Inspect preheater system
- Inspect kiln shell
- Inspect kiln supports
- Inspect kiln drive
- Evaluate alignment and mechanical balance of kiln
- Inspect clinker cooler
- Inspect kiln lining at regular intervals
- Check the kiln shell temperature. Special attention must be focused on the covered areas in the burning zone where high surface temperatures may occur
- The clearance between the kiln shell and kiln riding-rings must be checked at regular intervals

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions are controlled by a high temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Type of control device	Baghouse
Stack height	300 feet
Exit diameter	16.0 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	577,700 acfm
Maximum dry standard flow rate	376,796 dscfm
Gas temperature	220° F
Percent water vapor	Ambient
Bag cleaning method	Reverse air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

EU 021/Z-17 Cement Storage Silo #3 Discharge System with Baghouse Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is an activity of cement being transferred from silos. This emissions unit includes systems for in-plant distribution to loading areas and to packaging systems.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	300 TPH
Process temperature or pressure	Ambient
Chemical or physical data on product or raw materials	Cement

From the silos, the material is fed by gravity. The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to the fabric filtering system to meet the emission limits stipulated above.

All conveyor transfer points are totally enclosed. Openings for the passage of conveyors are fitted with adequate flexible seals. Scrapers shall be provided at the turning points of all conveyors to remove dust adhered to the belt surface. Conveyors are arranged to minimize free fall as far as practicable. The opening between the silos and weigh belt of the materials is fully enclosed. Loading to trucks and railcars is through a flexible rubber boot. All dust-laden air generated by the material transfer process shall be totally vented to fabric filtering system to meet the emission limits stipulated above.

Maintenance of Affected Source

- Inspect and adjust all belt conveyors and their skirting rubber and dust seals
- Check the speed of belt conveyors and slow then down, if possible, to reduce dust circulation and spillage
- Replace torn or defective conveyor belts
- Inspect belt conveyor idlers and nonmoving idlers
- Remove and replace missing or broken idlers
- Inspect all belt conveyor training idlers, adjust as necessary so the conveyor belt does not travel laterally
- Inspect belt scrapers on belt conveyors and adjust, replace worn-out components
- Inspect all pneumatic lines and pumps for cracks
- Inspect rubber boots for cracks and tears

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a low

temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	Z-17
Type of control device	Baghouse
Stack height	50 feet
Exit diameter	1.5 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	10000 acfm
Maximum dry standard flow rate	8346 dscfm
Gas temperature	160° F
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

EU 022/Z-15 Cement Storage Silo #3 with Baghouse

Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is an activity of cement being pneumatically transferred to the storage silo from the finish mill.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	125 TPH
Process temperature or pressure	>Ambient
Chemical or physical data on product or raw materials	Cement

The material is transferred to the silos pneumatically. From the silo, the material is fed by gravity to trucks or railcars, or pneumatically to bagging. The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to the fabric filtering system to meet the emission limits stipulated above.

The silo is equipped with audible high level alarms to warn of overfilling. The high-level alarm indicators are interlocked with the material filling line such that in the event of a silo approaching an overfilling condition, an audible alarm will operate, and the material filling line will be closed.

Maintenance of Affected Source

Silos are prone to internal buildup of material, particularly if material is wet or if aeration is inadequate. Periodic inspection (every 1-2 years) and maintenance are necessary.

In order to use a silo for material storage, it must be structurally sound, with no evidence of major deterioration or over stressing. Deteriorated doors and door frames should be repaired to prevent possible air leakage during aeration. Regular maintenance will help extend the silo's life. Silos need periodic inspection and maintenance, such as cleaning. Each year, preferably when the silo is empty, a thorough inspection of the entire structure is to be performed, and repairs are to be made where necessary.

Storage silos allow cement plants to stockpile inventory until needed. Buildup on the vessel walls, however, can rob plants of the storage systems in which they have invested. Buildups slow material flow and decrease the "live" capacity of the vessel. Overcoming these flow problems and recovering storage capacity may require silo cleaning.

Several types of equipment can be used for silo cleaning. One of these operates like an industrial-strength "weed whip," rotating a set of "flails" against the material in the

vessel. The cleaning head is typically inserted through the access port down into the vessel on a pivoting arm.

Any clean-out activity must be carefully controlled to avoid damage to the inner wall, which can reduce flow and cause continuing problems. Steel chain is commonly used for cement or any compacted material where there is no risk of explosion. Nonsparking brass chain is effective for compacted materials where the risk of fire or explosion is present.

Before the cleaning process is initiated, a path for loosened material to leave the vessel must be secured, and the discharge opening must be clear. A transport mechanism at the bottom — a conveyor, a truck, or a loader — is required to avoid buildup below the discharge and blockage of the opening as large quantities of material are removed. In cleaning, the operator starts at the bottom and progresses upward. Wall accumulations are undercut until they fall by their own weight. Cleaning from the top would cause the removed material to fall on top of the lower accumulation with no place to go until the entire mass is cut away; when the entire section falls, then, the risk of damage to the bottom of the vessel or discharge is considerable.

If a vessel is choked, that is, still running but nearly closed down, it will most likely get worse. As material falls through the vessel, it will build up on the accumulations, gradually restricting the flow path until blockage is total. Consequently, as soon as a partial blockage is noticed, scheduling a cleaning from a service is recommended. Time is then available to work the cleaning into the schedule of the plant and the cleaning contractor. Hung up, clogged, or slow running silos will interfere with the efficiency and profitability of a plant. Remove buildup from silo walls regularly, effectively, and safely.

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a medium temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	Z-15
Type of control device	Baghouse
Stack height	200 feet
Exit diameter	2.0 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	5300 acfm
Maximum dry standard flow rate	4285 dscfm
Gas temperature	180° F
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

EU 023 Cement Storage Silo #4 and Truck Loadout System with Baghouse

Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is an activity of cement being pneumatically transferred to the storage silo from the finish mill and an activity of cement being transferred from the silo. This emissions unit includes systems for in-plant distribution to loading areas and to packaging systems.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	47 TPH: silo, 390 TPH: trucks
Process temperature or pressure	>Ambient
Chemical or physical data on product or raw materials	Cement

The material is transferred to the silos pneumatically. From the silo, the material is fed by gravity to trucks or railcars, or pneumatically to bagging. The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to the fabric filtering system to meet the emission limits stipulated above.

The silo is equipped with audible high level alarms to warn of overfilling. The high-level alarm indicators are interlocked with the material filling line such that in the event of a silo approaching an overfilling condition, an audible alarm will operate, and the material filling line will be closed.

All conveyor transfer points are totally enclosed. Openings for the passage of conveyors are fitted with adequate flexible seals. Scrapers shall be provided at the turning points of all conveyors to remove dust adhered to the belt surface. Conveyors are arranged to minimize free fall as far as practicable. The opening between the silos and weigh belt of the materials is fully enclosed. Loading to trucks and railcars is through a flexible rubber boot. All dust-laden air generated by the material transfer process shall be totally vented to fabric filtering system to meet the emission limits stipulated above.

Maintenance of Affected Source

Silos are prone to internal buildup of material, particularly if material is wet or if aeration is inadequate. Periodic inspection (every 1-2 years) and maintenance are necessary.

In order to use a silo for material storage, it must be structurally sound, with no evidence of major deterioration or over stressing. Deteriorated doors and door frames should be repaired to prevent possible air leakage during aeration. Regular maintenance will help extend the silo's life. Silos need periodic inspection and maintenance, such as cleaning.

Each year, preferably when the silo is empty, a thorough inspection of the entire structure is to be performed, and repairs are to be made where necessary.

Storage silos allow cement plants to stockpile inventory until needed. Buildup on the vessel walls, however, can rob plants of the storage systems in which they have invested. Buildups slow material flow and decrease the "live" capacity of the vessel. Overcoming these flow problems and recovering storage capacity may require silo cleaning. Do not try to clean a vessel from below. To protect both plant personnel and the structure, the safest method is to clean down from the access opening(s) at the top of the vessel. That opening, however, is not to be used for putting people down into the silo, which likely would constitute a violation of the confined space entry rules.

Several types of equipment can be used for silo cleaning. One of these operates like an industrial-strength "weed whip," rotating a set of "flails" against the material in the vessel. The cleaning head is typically inserted through the access port down into the vessel on a pivoting arm.

Any clean-out activity must be carefully controlled to avoid damage to the inner wall, which can reduce flow and cause continuing problems. Steel chain is commonly used for cement or any compacted material where there is no risk of explosion. Nonsparking brass chain is effective for compacted materials where the risk of fire or explosion is present.

Before the cleaning process is initiated, a path for loosened material to leave the vessel must be secured, and the discharge opening must be clear. A transport mechanism at the bottom — a conveyor, a truck, or a loader — is required to avoid buildup below the discharge and blockage of the opening as large quantities of material are removed. In cleaning, the operator starts at the bottom and progresses upward. Wall accumulations are undercut until they fall by their own weight. Cleaning from the top would cause the removed material to fall on top of the lower accumulation with no place to go until the entire mass is cut away; when the entire section falls, then, the risk of damage to the bottom of the vessel or discharge is considerable.

If a vessel is choked, that is, still running but nearly closed down, it will most likely get worse. As material falls through the vessel, it will build up on the accumulations, gradually restricting the flow path until blockage is total. Consequently, as soon as a partial blockage is noticed, scheduling a cleaning from a service is recommended. Time is then available to work the cleaning into the schedule of the plant and the cleaning contractor. Hung up, clogged, or slow running silos will interfere with the efficiency and profitability of a plant. Remove buildup from silo walls regularly, effectively, and safely.

- Inspect and adjust all belt conveyors and their skirting rubber and dust seals
- Check the speed of belt conveyors and slow then down, if possible, to reduce dust circulation and spillage
- Replace torn or defective conveyor belts
- Inspect belt conveyor idlers and nonmoving idlers
- Remove and replace missing or broken idlers

- Inspect all belt conveyor training idlers, adjust as necessary so the conveyor belt does not travel laterally
- Inspect belt scrapers on belt conveyors and adjust, replace worn-out components
- Inspect all pneumatic lines and pumps for cracks
- Inspect rubber boots for cracks and tears

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer’s recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a low temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Type of control device	Baghouse
Stack height	75 feet
Exit diameter	0.8 feet
Bag pressure drop	2-6” H ₂ O
Actual volumetric flow rate	860 acfm
Maximum dry standard flow rate	829 dscfm
Air to cloth ratio	
Bag weave	
Bag material	
Gas temperature	Ambient
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

EU 024/Z-18 Cement Storage Silo and Railcar Loadout System with Baghouses

Emission Limits and Operating Limits

The owner or operator shall not cause to be discharged any gases from this affected source which exhibit opacity in excess of ten percent.

[40 CFR 63.1348]

Operation of Affected Source

This emissions unit is an activity of cement being pneumatically transferred to the storage silo from the finish mill and an activity of cement being transferred from the silo. This emissions unit includes systems for in-plant distribution to loading areas.

OPERATIONAL PARAMETERS FOR EMISSIONS UNIT

Weight per unit time of raw materials input	30 TPH: silo, 100 TPH: trucks
Process temperature or pressure	>Ambient
Chemical or physical data on product or raw materials	Cement

The material is transferred to the silos pneumatically. From the silo, the material is fed by gravity to trucks or railcars. The loading, unloading, handling, transfer and storage of materials is in a totally enclosed system. All dust-laden air generated by the process operations is extracted and vented to the fabric filtering system to meet the emission limits stipulated above.

The silo is equipped with audible high level alarms to warn of overfilling. The high-level alarm indicators are interlocked with the material filling line such that in the event of a silo approaching an overfilling condition, an audible alarm will operate, and the material filling line will be closed.

All conveyor transfer points are totally enclosed. Openings for the passage of conveyors are fitted with adequate flexible seals. Scrapers shall be provided at the turning points of all conveyors to remove dust adhered to the belt surface. Conveyors are arranged to minimize free fall as far as practicable. The opening between the silos and weigh belt of the materials is fully enclosed. Loading to trucks and railcars is through a flexible rubber boot. All dust-laden air generated by the material transfer process shall be totally vented to fabric filtering system to meet the emission limits stipulated above.

Maintenance of Affected Source

Silos are prone to internal buildup of material, particularly if material is wet or if aeration is inadequate. Periodic inspection (every 1-2 years) and maintenance are necessary.

In order to use a silo for material storage, it must be structurally sound, with no evidence of major deterioration or over stressing. Deteriorated doors and door frames should be repaired to prevent possible air leakage during aeration. Regular maintenance will help extend the silo's life. Silos need periodic inspection and maintenance, such as cleaning.

Each year, preferably when the silo is empty, a thorough inspection of the entire structure is to be performed, and repairs are to be made where necessary.

Storage silos allow cement plants to stockpile inventory until needed. Buildup on the vessel walls, however, can rob plants of the storage systems in which they have invested. Buildups slow material flow and decrease the “live” capacity of the vessel. Overcoming these flow problems and recovering storage capacity may require silo cleaning.

Several types of equipment can be used for silo cleaning. One of these operates like an industrial-strength “weed whip,” rotating a set of “flails” against the material in the vessel. The cleaning head is typically inserted through the access port down into the vessel on a pivoting arm.

Any clean-out activity must be carefully controlled to avoid damage to the inner wall, which can reduce flow and cause continuing problems. Steel chain is commonly used for cement or any compacted material where there is no risk of explosion. Nonsparking brass chain is effective for compacted materials where the risk of fire or explosion is present.

Before the cleaning process is initiated, a path for loosened material to leave the vessel must be secured, and the discharge opening must be clear. A transport mechanism at the bottom — a conveyor, a truck, or a loader — is required to avoid buildup below the discharge and blockage of the opening as large quantities of material are removed. In cleaning, the operator starts at the bottom and progresses upward. Wall accumulations are undercut until they fall by their own weight. Cleaning from the top would cause the removed material to fall on top of the lower accumulation with no place to go until the entire mass is cut away; when the entire section falls, then, the risk of damage to the bottom of the vessel or discharge is considerable.

If a vessel is choked, that is, still running but nearly closed down, it will most likely get worse. As material falls through the vessel, it will build up on the accumulations, gradually restricting the flow path until blockage is total. Consequently, as soon as a partial blockage is noticed, scheduling a cleaning from a service is recommended. Time is then available to work the cleaning into the schedule of the plant and the cleaning contractor. Hung up, clogged, or slow running silos will interfere with the efficiency and profitability of a plant. Remove buildup from silo walls regularly, effectively, and safely.

- Inspect and adjust all belt conveyors and their skirting rubber and dust seals
- Check the speed of belt conveyors and slow then down, if possible, to reduce dust circulation and spillage
- Replace torn or defective conveyor belts
- Inspect belt conveyor idlers and nonmoving idlers
- Remove and replace missing or broken idlers
- Inspect all belt conveyor training idlers, adjust as necessary so the conveyor belt does not travel laterally
- Inspect belt scrapers on belt conveyors and adjust, replace worn-out components
- Inspect all pneumatic lines and pumps for cracks

- Inspect rubber boots for cracks and tears

Operation of Air Pollution Control Device

The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. The particulate matter (PM) emissions from the materials being transferred are controlled by a low temperature baghouse fabric filter system. The baghouse is put in operation prior to the start of source operation, and remains in operation while the source is in operation.

Operators are familiar with startup and shutdown procedures of dust control systems. All dust control systems should be in operation before any processing equipment is started. Certain units are equipped with an alarm to sound when a dust collector stops operating.

OPERATIONAL PARAMETERS FOR BAGHOUSE

Identification of control device	Z-18
Type of control device	Baghouse
Stack height	80 feet
Exit diameter	1.5 feet
Bag pressure drop	2-6" H ₂ O
Actual volumetric flow rate	500 acfm
Maximum dry standard flow rate	490 dscfm
Gas temperature	Ambient
Percent water vapor	Ambient
Bag cleaning method	Pulsed air
Bag cleaning cycle:	Periodic

Maintenance of Air Pollution Control Device

See Attachment 1 – Baghouse Maintenance.

Corrective Actions

The owner or operator of a raw mill or finish mill shall monitor opacity by conducting daily visual emissions observations of the mill sweep and air separator PMCDs of these affected sources, in accordance with the procedures of Method 22 of appendix A of 40 CFR 60. The Method 22 test shall be conducted while the affected source is operating at the highest load or capacity level reasonably expected to occur within the day. The duration of the Method 22 test shall be six minutes.

If visible emissions are observed during any Method 22 visible emissions test, the owner or operator must:

- (1) Initiate, within one-hour, the corrective actions specified in this site specific operating and maintenance plan; and
- (2) Within 24 hours of the end of the Method 22 test in which visible emissions were observed, conduct a visual opacity test of each stack from which visible emissions were observed in accordance with Method 9 of appendix A of 40 CFR 60. The duration of the Method 9 test shall be thirty minutes.

Applicability of Corrective Actions

The requirement for site-specific corrective actions applies to:

- EU 013/N-13 Finish Mill with Baghouse

Description of Corrective Actions

- Notify control room that finish mill will be going off-line
- Determine availability of clinker storage volume
- Take kiln off-line only as necessary
- Gradually reduce milling rate and cease milling operation
- Perform complete baghouse and ductwork inspection
- Perform necessary repairs
- Put baghouse in operation
- Resume milling
- If any new bags have been installed, allow bags to form a filter cake before conducting the Method 9 test specified above

Annual Combustion System Inspection

An inspection of the components of the combustion system of the in-line kiln raw mill shall be conducted at least once per year. Optimum combustion conditions in cement kiln systems occur when kiln exit gas oxygen and carbon monoxide emissions are as low as possible. Stated another way, optimum combustion conditions occur when excess air is as low as possible and complete combustion still occurs. A kiln operating with low excess air may cause partial combustion of fuel. A kiln system operating with high excess air

increases the heat loss in the kiln system exit gases. In either case, the net effects are higher specific fuel consumption and lower clinker production.

At a minimum, an inspection shall include the following:

- 1) Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation; clean pilot flame sensor, as necessary;
- 2) Ensure proper adjustment of primary and secondary combustion air, and adjust as necessary;
- 3) Inspect hinges and door latches, and lubricate as necessary;
- 4) Inspect dampers, fans, and blowers for proper operation;
- 5) Inspect door and door gaskets for proper sealing;
- 6) Inspect motors for proper operation;
- 7) Inspect refractory lining; clean and repair/replace lining as necessary;
- 8) Inspect kiln shell for corrosion and/or hot spots;
- 9) Inspect kiln, preheater and stack, clean as necessary;
- 10) Inspect fuel supply systems, for proper operation;
- 11) For the burning that follows the inspection, document that the combustion system is operating properly and make any necessary adjustments;
- 12) Inspect air pollution control device(s) for proper operation;
- 13) Inspect gas conditioning systems to ensure proper operation;
- 14) Ensure proper calibration of thermocouples, sorbent feed systems and any other monitoring equipment; and
- 15) Generally observe that the equipment is maintained in good operating condition.

Within 10 operating days following an equipment inspection all necessary repairs shall be completed unless the owner or operator obtains written approval from the State agency establishing a date whereby all necessary repairs of the designated facility shall be completed.

Periodic Monitoring

This section provides procedures to be used to periodically monitor affected sources subject to opacity standards under 40 CFR 63.1346 and 63.1348.

Applicability of Periodic Monitoring

- | | | |
|--------------------------|--------------------|---|
| <input type="checkbox"/> | EU 001/D-75 | Filter Dust Bin |
| <input type="checkbox"/> | EU 002/D-67 | Fly Ash/Equilibrium Catalyst Bin |
| <input type="checkbox"/> | EU 004/F-14 | Raw Meal Transfer |
| <input type="checkbox"/> | EU 006/G-12A & B | Two Blend Silos |
| <input type="checkbox"/> | EU 007/H-15 | Kiln Feed Surge Bin |
| <input type="checkbox"/> | EU 008/S-04 | Clinker Receiving/Handling System |
| <input type="checkbox"/> | EU 010/L-06 & L-07 | Clinker Storage Silo & Finish Mill Storage Silo |
| <input type="checkbox"/> | EU 011/L-08 | Gypsum and Limestone Bins |
| <input type="checkbox"/> | EU 012/M-08 | Silo Discharge |
| <input type="checkbox"/> | EU 014/Q-17 | Cement Storage Silos #1 & #2 Discharge System |
| <input type="checkbox"/> | EU 015/Q-15 | Cement Storage Silos #1 & #2 |

<input type="checkbox"/>	EU 017/D-63	Iron Ore Bin
<input type="checkbox"/>	EU 019/M-05	Finish Mill Feed Belt
<input type="checkbox"/>	EU 021/Z-17	Cement Storage Silo #3 Discharge System
<input type="checkbox"/>	EU 022/Z-15	Cement Storage Silo #3
<input type="checkbox"/>	EU 023	Cement Storage Silo #4 and Truck Loadout System
<input type="checkbox"/>	EU 024/Z-18	Cement Storage Silo and Railcar Loadout System

Procedures for Periodic Monitoring

The owner or operator must conduct a monthly 1-minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR 60. The test must be conducted while the affected source is in operation.

If no visible emissions are observed in six consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the owner or operator must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

If no visible emissions are observed during the semi-annual test for any affected source, the owner or operator may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the owner or operator must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

If visible emissions are observed during any Method 22 test, the owner or operator must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A to 40 CFR 60. The Method 9 test must begin within one hour of any observation of visible emissions.

Reporting Requirements

The O&M Plan includes procedures for an annual inspection of the combustion system. Results of this inspection are to be included with annual reporting.

Maintenance and inspection records will be kept for five years and provided upon request.

Startup, Shutdown, and Malfunction Plan

The purpose of the startup, shutdown, and malfunction plan is to—

- (A) Ensure that, at all times, owners or operators operate and maintain affected sources, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards;
- (B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and
- (C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

Procedures for Malfunctions

Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan of this section.

The equipment subject to the MACT standards includes equipment such as process equipment (e.g., kiln, raw and finish mills), storage silos, control devices (e.g., baghouses), and continuous monitoring systems (CMS; i.e., monitoring systems used to demonstrate compliance with the MACT standards during normal operation).

Potential malfunctions of the applicable equipment were evaluated to determine whether a particular malfunction could result in excess HAP emissions. Potential malfunctions that may result in excess HAP emissions include:

- broken bags in baghouses
- excess or inadequate combustion air
- high level in a storage vessel
- excessive temperature at inlet of control device

Corrective actions are identified for all malfunctions that have the potential for excess HAP emissions. The standards do not necessarily require facilities to control HAP emissions resulting from malfunctions to the level established in the standard, but to do their best to minimize emissions. The corrective actions are documented in the SSM plan. Operations personnel have reviewed the proposed corrective actions to validate that each will effectively mitigate the malfunction and the resulting excess HAP emissions, while also providing sufficient operational flexibility.

The malfunction scenarios have been identified in the SSM plan and corrective actions have been specified.

broken bags in baghouses	Repair bags as necessary
excess or inadequate combustion air	Adjust combustion O2
high level in a storage vessel	Cease filling, reduce level
excessive temperature at inlet of control device	Repair gas conditioning equipment

The corrective actions allow operators to react to the malfunction to minimize excess HAP emissions, achieve compliance with the standard, and maintain operational flexibility.

Where two (or more) corrective actions are available, both are included in the SSM plan. This prevents the facility from deviating from the plan (and having to report the deviation to the regulatory agency) if one of the alternatives is not available or is not feasible when a malfunction occurs.

Part of an effective SSM plan implementation is to record the time and duration of each malfunction event identified. Compliance management tools, such as monitoring and recordkeeping systems, are essential in order to demonstrate continued compliance with the SSM requirements. Included in the SSM plan are the monitoring instruments (e.g., oxygen sensors, vessel high level alarms) that will be used to record SSM events for each piece of equipment subject to the standard. Where no instrumentation is available, visual inspections of certain equipment will be performed and documented at regular intervals to demonstrate that SSM events are not occurring.

This SSM plan includes startup and shutdown procedures for the equipment subject to the MACT standards. These procedures were discussed with operations personnel to determine whether a particular routine startup or shutdown activity potentially results in excess HAP emissions. Any that do are documented in the SSM plan.

Specific maintenance procedures for the air pollution control devices and the continuous monitoring systems were developed and documented in the O&M plan or the SSM plan, including the frequency of implementation. The plan identifies all routine or otherwise predictable continuous monitoring systems malfunctions. Routine calibration of the continuous monitoring systems is required. An onsite inventory of critical spare parts is maintained. Routine maintenance of all monitoring equipment is documented.

Procedures for Startup and Shutdown

Specific procedures for startup and shutdown are included with this plan as attachments.

Reporting

When actions taken by the owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or

operator shall keep records for that event that demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping, that confirms conformance with the startup, shutdown, and malfunction plan for that event.

In addition, the owner or operator shall keep records of these events as specified in 40 CFR 63.10(b) (and elsewhere in this part), including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in 40 CFR 63.10(d)(5).

If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall record the actions taken for that event and shall report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with 40 CFR 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).

Two kinds of reports are required: the immediate SSM deviation report, and the semi-annual SSM report. A deviation report is sent to the regulatory agency each time an SSM event occurs and the facility deviates from its SSM plan. This notification must be made within two days by phone or facsimile, followed by a written letter within seven days.

The semi-annual report summarizes all of the deviations in the six-month reporting period. Customized reports can be designed and incorporated into the SSM CMT to provide both immediate and periodic reports.

The owner or operator shall keep the written startup, shutdown, and malfunction plan on record after it is developed to be made available for inspection, upon request, by the Administrator for the life of the affected source or until the affected source is no longer subject to the provisions of this part. In addition, if the startup, shutdown, and malfunction plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the startup, shutdown, and malfunction plan on record, to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan.

Definitions

Alkali bypass means a duct between the feed end of the kiln and the preheater tower through which a portion of the kiln exit gas stream is withdrawn and quickly cooled by air or water to avoid excessive buildup of alkali, chloride and/or sulfur on the raw feed. This may also be referred to as the "kiln exhaust gas bypass".

Bagging system means the equipment which fills bags with Portland cement.

Clinker cooler means equipment into which clinker product leaving the kiln is placed to be cooled by air supplied by a forced draft or natural draft supply system.

Continuous monitor means a device which continuously samples the regulated parameter specified in 40 CFR 63.1350 of this subpart without interruption, evaluates the detector response at least once every 15 seconds, and computes and records the average value at least every 60 seconds, except during allowable periods of calibration and except as defined otherwise by the continuous emission monitoring system performance specifications in appendix B to part 60 of this chapter.

Conveying system means a device for transporting materials from one piece of equipment or location to another location within a facility. Conveying systems include but are not limited to the following: feeders, belt conveyors, bucket elevators and pneumatic systems.

Conveying system transfer point means a point where any material including but not limited to feed material, fuel, clinker or product, is transferred to or from a conveying system, or between separate parts of a conveying system.

Dioxins and furans (D/F) means tetra-, penta-, hexa-, hepta-, and octa-chlorinated dibenzo dioxins and furans.

Excess HAP Emissions — emissions in excess of those that would have occurred if there were no startup, shutdown or malfunction and the owner or operator complied with the relevant provisions of the regulation.

Facility means all contiguous or adjoining property that is under common ownership or control, including properties that are separated only by a road or other public right-of-way.

Feed means the prepared and mixed materials, which include but are not limited to materials such as limestone, clay, shale, sand, iron ore, mill scale, cement kiln dust and flyash, that are fed to the kiln. Feed does not include the fuels used in the kiln to produce heat to form the clinker product.

Finish mill means a roll crusher, ball and tube mill or other size reduction equipment used to grind clinker to a fine powder. Gypsum and other materials may be added to and

blended with clinker in a finish mill. The finish mill also includes the air separator associated with the finish mill.

Greenfield kiln, in-line kiln/raw mill, or raw material dryer means a kiln, in-line kiln/raw mill, or raw material dryer for which construction is commenced at a plant site (where no kilns and no in-line kiln/raw mills were in operation at any time prior to March 24, 1998) after March 24, 1998.

Hazardous waste is defined in 40 CFR 261.3 of this chapter.

In-line kiln/raw mill means a system in a Portland cement production process where a dry kiln system is integrated with the raw mill so that all or a portion of the kiln exhaust gases are used to perform the drying operation of the raw mill, with no auxiliary heat source used. In this system the kiln is capable of operating without the raw mill operating, but the raw mill cannot operate without the kiln gases, and consequently, the raw mill does not generate a separate exhaust gas stream.

Kiln means a device, including any associated preheater or precalciner devices, that produces clinker by heating limestone and other materials for subsequent production of Portland cement.

Kiln exhaust gas bypass means alkali bypass.

Malfunction — any sudden, infrequent, and not reasonably preventable failure of air-pollution control equipment, process equipment, or a process to operate in a normal or usual manner.

Monovent means an exhaust configuration of a building or emission control device (e. g. positive pressure fabric filter) that extends the length of the structure and has a width very small in relation to its length (i. e., length to width ratio is typically greater than 5:1). The exhaust may be an open vent with or without a roof, louvered vents, or a combination of such features.

New brownfield kiln, in-line kiln raw mill, or raw material dryer means a kiln, in-line kiln/raw mill or raw material dryer for which construction is commenced at a plant site (where kilns and/or in-line kiln/raw mills were in operation prior to March 24, 1998) after March 24, 1998.

One-minute average means the average of thermocouple or other sensor responses calculated at least every 60 seconds from responses obtained at least once during each consecutive 15 second period.

Portland cement plant means any facility manufacturing Portland cement.

Raw material dryer means an impact dryer, drum dryer, paddle-equipped rapid dryer, air separator, or other equipment used to reduce the moisture content of feed materials.

Raw mill means a ball and tube mill, vertical roller mill or other size reduction equipment, that is not part of an in-line kiln/raw mill, used to grind feed to the appropriate size. Moisture may be added or removed from the feed during the grinding operation. If the raw mill is used to remove moisture from feed materials, it is also, by definition, a raw material dryer. The raw mill also includes the air separator associated with the raw mill.

Rolling average means the average of all one-minute averages over the averaging period.

Run average means the average of the one-minute parameter values for a run.

Shutdown — the cessation/stopping of operation of an affected source.

Startup — the setting into operation of an affected source.

TEQ means the international method of expressing toxicity equivalents for dioxins and furans as defined in U.S. EPA, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989.

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Attachment 1: Baghouse Maintenance for Affected Sources other than In-line Kiln/Raw Mill/Clinker Cooler

Daily

- Maintain a written record of the observation and any action resulting from the inspection.

Weekly

- Check and document the baghouse pressure drop. If the pressure drop falls out of the normal operating range, specified by the manufacturer, corrective action will be taken to return the pressure drop to normal.
- Check drive components on fan.
- Maintain a written record of the observation and any action resulting from the inspection.

Monthly

- Visible emissions shall be observed on a monthly basis to ensure no visible emissions during the material handling operation of the unit. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. If unsuccessful that day due to weather, an observation shall be made the following day.
- Check the cleaning sequence of the baghouse.
- Pulse jet baghouse - check the air delivery system.
- Check compressed air lines including oilers and filters.
- Check the hopper functions and performance.
- Check all moving parts on the discharge system and screw-conveyor bearings.
- If leaks or abnormal conditions are detected the appropriate measures for repair will be implemented within eight (8) hours.
- Maintain a written record of the inspection and any action resulting from the inspection.

Quarterly

- Thoroughly inspect bags for leaks and wear. (Look for obvious holes or tears in the bags.) If leaks or abnormal conditions are detected the appropriate measures for repair will be implemented within eight (8) hours. Bag replacement should be documented by identifying the date, time and location of the bag in relationship to the other bags. The location should be identified on an overhead drawing of the bag layout in the baghouse.
- Check fan for corrosion and blade wear.
- Inspect baghouse housing for corrosion.
- Maintain a written record of the inspection and any action resulting from the inspection.

Semiannual

- Inspect every 6 months all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods.

- Check duct for dust buildup.
- Check gaskets on all doors.
- Inspect paint on baghouse.
- Maintain a written record of the inspection and any action resulting from the inspection.

Annual

- Check all welds and bolts.
- Check hopper for wear.
- Replace high-wear parts on cleaning system.
- Maintain a written record of the observation and any action resulting from the inspection.

Inspection of rotary valves

Inspect the condition of the following:

- check for wear on bearings and shaft
- check hopper and chute for holes and leaks
- check sprocket and chain for wear
- check chain for tightness
- spray a thin film of oil on chain
- check the alignment of the sprockets
- check oil in gear box
- check bolts for tightness
- check gear box for oil leaks
- are all guards in place and bolted down?

Service of separator duct

- clean the draft duct from the separator to the dust collector
- open bottom of dust collector
- clean all hard build-up inside hopper
- clean and remove all lumps from grates
- check that all draft pipes are clear, and clean if necessary
- lightly tap on all duct work to ensure that pipes are open
- check partition and walls for cracks
- seal cracks found in partitions
- check operation of purge valves
- check dust pipes and air pipes for leaks
- check door gaskets for leaks
- replace broken bags
- tighten all loose bags
- remove any dust build up from bags
- check bag clamps, and replace them if defective
- clean and remove any dust build up from all compartments

Record number of new bags used: _____

Record in the space below any condition that will require major repairs: _____

Service of pressurizing unit

Cleaning of bottom hopper:

- place dumpster under hopper
- inspect bottom of hopper slide gate
- open bottom of dust collector slide gate
- lightly tap on hopper to insure that all dust is out of hopper.
- open bottom hopper inspection.
- clean all hard build-up inside hopper.
- clean and remove all lumps from grates.
- inspect operation of hopper door and seal
- close hopper inspection door

Record in the space below any condition that will require major repairs: _____

Safety note!!! Respirators must be worn when working inside dust collector.

Attachment 2: Baghouse Maintenance for In-line Kiln/Raw Mill/Clinker Cooler

Daily

- Maintain a written record of the observation and any action resulting from the inspection.

Weekly

- Check and document the baghouse pressure drop. If the pressure drop falls out of the normal operating range, specified by the manufacturer, corrective action will be taken to return the pressure drop to normal.
- Check drive components on fan.
- Maintain a written record of the observation and any action resulting from the inspection.

Monthly

- Visible emissions shall be observed on a monthly basis to ensure no visible emissions during the material handling operation of the unit. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. If unsuccessful that day due to weather, an observation shall be made the following day.
- Check the cleaning sequence of the baghouse.
- Pulse jet baghouse - check the air delivery system.
- Check compressed air lines including oilers and filters.
- Check the hopper functions and performance.
- Check all moving parts on the discharge system and screw-conveyor bearings.
- If leaks or abnormal conditions are detected the appropriate measures for repair will be implemented within eight (8) hours.
- Maintain a written record of the inspection and any action resulting from the inspection.

Quarterly

- Thoroughly inspect bags for leaks and wear. (Look for obvious holes or tears in the bags.) If leaks or abnormal conditions are detected the appropriate measures for repair will be implemented within eight (8) hours. Bag replacement should be documented by identifying the date, time and location of the bag in relationship to the other bags. The location should be identified on an overhead drawing of the bag layout in the baghouse.
- Check fan for corrosion and blade wear.
- Inspect baghouse housing for corrosion.
- Maintain a written record of the inspection and any action resulting from the inspection.

Semiannual

- Inspect every 6 months all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods.
- Check duct for dust buildup.
- Check gaskets on all doors.
- Inspect paint on baghouse.
- Maintain a written record of the inspection and any action resulting from the inspection.

Annual

- Check all welds and bolts.
- Check hopper for wear.
- Replace high-wear parts on cleaning system.
- Maintain a written record of the observation and any action resulting from the inspection.

Attachment 3: Baghouse Startup Procedures

Proper start-up procedures will help extend the life of new filter media in a dust collector. What is generally accepted as start-up procedures is the process designed to intentionally develop a dust cake on the bags. This is referred to as seasoning, or conditioning, the filter media. In a fabric filter dust collector, the filter media is used to support a dust cake. A dust cake is the porous layer of collected particulate that develops during the conditioning period of new collector bags and following each cleaning cycle. The process can be accelerated in many installations by introducing a precoat material, such as agricultural lime, into the system. Commercial precoats also are available. Following installation of the filter bags and inspection of the related auxiliary equipment, the exhaust fan can be started. However, it is extremely important that the new filter bags are not exposed to the full volume (ACFM) of the fan.

First, close the fan damper (or inlet dampers) to one-half open until the monitoring gauge reads about 50% to 65% of the manufacturer's recommended maximum flange-to-flange differential drop. At roughly 75% of the manufacturer's recommended differential pressure, the cleaning system can be initiated. Normal operation and periodic cleaning will bring the pressure drop to a calculable and historically stable level.

Depending on the application, development of this differential pressure may take a number of hours or even days. This is necessary to ensure that the new filter media is exposed to low filtering velocities of dust-laden air. Reducing the volume decreases the airstream's velocity (air-to-cloth ratio), thus protecting the virgin bags from a high velocity impingement of dust. Should the bags be exposed to the fan's full volume, fine particles may embed themselves into the inner fibers of the bags and create a blinding condition. This also can damage the fibers of the media, reducing the life of the bags.

Attachment 4: In-line Kiln/Raw Mill/Clinker Cooler Startup Procedures

Kiln Startup Procedures

It is important that ignition be achieved as soon as fuel is injected and, if the flame fails during warm-up, the kiln should be purged with 5 times the volume of kiln, preheater, ducting, and dust collector before re-ignition is attempted. Volatile hydrocarbons accumulate rapidly in the kiln and, if then re-ignited, will potentially explode.

Warm-up follows agreement by production and maintenance management that all work is completed, that all tools and materials have been removed and that all doors are closed. Work may, with discretion, continue in the cooler during warm-up but no workers should remain in the cooler at the time of ignition.

Commonly, warm-up from cold takes 24 hours from ignition to feed-on, but may be increased if extensive refractory work requires curing. The introduction of feed (usually 50% of full rate), and the increase of fuel, speed and feed to normal operation can take another 8 hours from feed-on. The ID fan should be operated at approximately 10% O₂ at the back of the kiln to feed-on whereupon the normal O₂ target is adopted.

For coal fired kilns, warm-up uses gas or oil with switch-over to coal at the time of feed-on. If the coal mill uses hot gas from the cooler, there may be a delay before heat is available from clinker.

Prior to beginning to bring the kiln on-line, the kiln/raw mill I.D. fan and baghouse are powered to normal operating conditions. The kiln is then preheated with unused No. 2 fuel oil for a period of up to 24-36 hours; depending upon how long the kiln has been shut down.

Once the kiln is sufficiently hot and while still firing unused No. 2 fuel oil, raw meal feed is fed to the preheater at about 30-40 percent of normal feed rate. This material will coat the kiln and will produce clinker that is discharged to the clinker cooler. When there is heat in the clinker cooler, the coal mill is brought on-line and coal firing to the kiln main burner is initiated. At this point, raw meal feed to the preheater is incrementally increased. As the kiln stabilizes, the raw meal feed is incrementally increased until the system is operating at full capacity. Typically, the time from feed-on to full capacity is 3-4 hours.

During the startup of the kiln/raw mill, there could be periods when emissions are higher than normal (pounds per ton of clinker) due to imbalances of feed and fuel. These periods will be minimized through good operating practices. The emissions of particulate matter (PM and PM₁₀), are not expected to exceed permit limits (pounds per ton of clinker) during startup.

This start-up procedure assumes the kiln system has been preheated for desired refractory dry-out but the system is cold. In connection with the normal startup procedure where

the linings have been dried out, the heat procedure can be reduced from the stated 72 hours to 24 hours. All fans, conveyors, air purging system, and associated equipment should be run for a minimum of eight hours and all necessary adjustments made prior to start-up.

Kiln Heat-Up

1. Start the main dust collector fan with damper closed.
2. Open the main dust collector fan damper gradually so that a negative pressure is generated at the dust collector inlet.
3. Open the damper of the preheater I.D. fan 10%.
4. Start the primary air fan and open the associated damper 10%.
5. Start the kiln burner.
6. Check that the fuel is ignited and if necessary, adjust primary air, fuel rate and draft through kiln so that a stable flame is obtained.
7. Increase the fuel volume gradually and slowly.
8. Adjust the draft level in kiln by means of the preheater I.D. fan damper, and main baghouse fan.
9. CAUTION: The flame must not cause sooting. Quite often, this will require that the O₂ content indicated by the kiln back end analyzer is 6-8%.
10. It will normally be necessary to start clinker cooler fans to provide adequate combustion air.
11. Start the preheater I.D. fan, if necessary to maintain proper combustion.
12. Start rotating the kiln in accordance with the manufacturer's rotation schedule.
13. Check the supporting roller lubrication – the journals must not become dry.
14. Continuous rotation on the auxiliary drive is required if the kiln is exposed to cooling, e.g. heavy rain showers.
15. After 16 hours of preheating the temperature of the kiln lining should be sufficiently high to ensure ignition of the coal from the operation nozzle, which is put into operation as follows:
 - A. Turn off the oil flow to the oil burner.
 - B. Retract the oil burner completely.
 - C. Replace the oil burner by a burner with an operating nozzle that is ready for operation.
16. After 18 - 20 hours when the kiln gets very hot, raw feed should be introduced to the preheater. A raw feed weight equal to 0.1% of the daily clinker output is a good estimate. When this material gets into the kiln it will help protect the refractory by coating the bricks and filling voids.
17. At the end of the kiln heat-up the remaining clinker cooler fans should be started to protect the grate plates.
18. Start the cooler vent fan to maintain the firing hood pressure by automatic control.
19. Regulate the draft (by adjusting the preheater I.D. fan damper) and the fuel flow to attain an oxygen content of 4 – 6% in the kiln inlet.

Kiln Startup

1. Recirculate kiln feed at the desired starting feed rate. It should be a minimum of 50% of feed rate at full production.
2. Start kiln shell cooling fans.
3. Start cooler drives on minimum speed. Increase the air flows on the front fans to normal operating values and put into automatic control. This will provide sufficient combustion air at startup.
4. Start main kiln drive on minimum speed.
5. Perform the following operations in rapid, but correct, sequence:
 - A. Start the I.D. fan if not yet started.
 - B. Start the feed to the preheater.
 - C. Increase the draft when the feed enters the preheater.
 - D. Increase the kiln speed to 1 rpm.
 - E. Open the primary air fan damper to 40% (approximately).
 - F. Gradually increase the fuel to the kiln and simultaneously adjust the draft to obtain proper oxygen level at the inlet to the kiln.
 - G. Open the tertiary air damper.
 - H. Adjust the draft and tertiary air to balance the oxygen levels at preheater exit and kiln inlet.
6. Personnel must be stationed in the preheater tower in order to monitor the passage of raw meal. If there is any indication of blocking, the control room must be informed immediately and the kiln operation stopped until the blockage is cleared.
7. Increase the feed and speed of kiln as soon as possible. The preheater is more efficient at high feed rates.
8. Increase the cooler undergrate air flow rates.
9. When the material arrives at the burning zone it may be necessary to reduce the kiln speed to prevent the material from passing the burning zone too quickly. It is very important that the initial material charge is well burned so that the visibility in kiln is not lost due to dust formations. The clinker must be well burnt all the time. If not, increase the raw meal temperature by increasing the draft and fuel quantity.
10. Increase the kiln speed and feed gradually so that the exit gas temperature after the preheater does not exceed safe levels.
11. The maximum production rate can generally be achieved within a few hours after the startup.

Raw Mill Startup

Typically, the raw mill is brought on-line during the preheat of the kiln once there is sufficient heat for the raw mill to operate.

The kiln and raw mill usually operate together in what is referred to as the compound mode of operation. This operating mode occurs approximately 90 percent of the time. The remaining 10 percent of the time, the kiln operates alone in what is referred to as the direct operating mode. The raw mill is a source of particulate matter and a source of

combustion products when the raw mill heater operates. The raw mill exhaust gases are discharged through the kiln baghouse.

With the kiln in the direct operating mode, the raw mill is brought on-line by opening the dampers isolating the raw mill; and as quickly and simultaneously as possible starting the raw mill fan, the raw mill and the raw mill feed.

During the startup of the raw mill while the kiln is operating, there can be a brief imbalance in the airflow through the kiln system resulting in short-term spikes in emissions from the kiln. These short-term emission spikes will be minimized by best operating practices. The raw mill startup is not expected to affect particulate matter (PM or PM10) emissions.

Clinker Cooler Startup

The clinker cooler I.D. fan and baghouse are powered prior to clinker being discharged from the kiln into the clinker cooler. The air flow and clinker flow through the cooler during startup will be controlled to optimize heat recovery. The time to bring the cooler on-line and to full capacity is dependent upon the time required to bring the kiln/raw mill to full capacity. Typically, this time period will be 3-4 hours. Emissions from the cooler are limited to PM and PM10. During the startup period, no excess emissions are expected from the clinker cooler.

It may, from time to time, be necessary to start the grate cooler and the clinker conveying system in order to transport away the materials. In order not to fill up the cooler, the grates should be moved for about 10 minutes every hour at minimum speed. To ensure effective cooling at the cooler inlet, it may at the same time be necessary to start the first fans of the cooler to ensure that there is sufficient air for combustion.

The clinker cooler startup should occur around the same time as the kiln feed startup:

1. Start clinker pan conveyors.
2. Start clinker crusher.
3. Start timer and operation of tipping valves.
4. Start cooler vent fan and adjust draft to maintain a negative pressure in the kiln firing hood.
5. Progressively, start cooler undergrate fans to provide enough combustion air to the kiln, and keep grate plate temperatures down.
6. As clinker begins to discharge into the cooler, the grates should be started to prevent any buildups.
7. Progressively, as the clinker production increases, the fan volumes should be increased, and the grates operated more frequently.

Attachment 5: In-line Kiln/Raw Mill/Clinker Cooler Shutdown Procedures

The kiln/raw mill, clinker cooler and coal mill have normal and emergency shutdown procedures. The emergency procedures will shutdown entire systems immediately and close dampers isolating the systems.

Shut-down may be either:

- Emergency, in which case all equipment upstream of the failure must be stopped immediately, or
- Controlled, in which case the feed bin and coal system should be emptied, the kiln load run out as far as possible, and the cooler emptied. The burner pipe is withdrawn, or cooling air is continued through the burner, and the kiln is rotated on a standard schedule for about 12 hours with the ID fan running at reduced speed.

Suggested inching is as follows:

<u>Duration of Shutdown</u>	<u>Kiln Turning</u>
0 - 2 hours	continuous
2 - 4 hours	1/4 turn every 15 minutes
4 - 12 hours	1/4 turn every hour

If the shut-down is for less than 24 hours and does not involve entering the kiln or preheater, then heat should be retained either by stopping the ID fan immediately and shutting the preheater dampers after 2 hours, or shutting down the fan after 2 hours.

The following procedures are followed for normal (controlled) shutdowns.

Normal Kiln/Raw Mill Shutdown

Shutdown of the kiln and raw mill, while operating in the compound operating mode, is accomplished by first shutting down the raw mill and then shutting down the kiln. The raw mill is shutdown by stopping raw meal feed, stopping the raw mill and stopping the raw mill fan quickly and as simultaneously as possible. The dampers isolating the raw mill are then quickly closed.

The kiln is shutdown by shutting off the kiln feed and cutting back on the fuel to the main kiln burner. The kiln exhaust fan is also cut back. The kiln continues turning as the fuel in the main burner is continually cut back and finally cut off. The kiln continues turning at a prescribed rate until cool. At this time, the kiln can stop being turned. The kiln baghouse remains powered as long as air is drafted through the kiln.

There are no excess emissions expected during kiln shutdown.

Shutdown Sequence

1. Stop the preheater I.D. fan. The following should happen automatically:
 - A. The kiln feed will stop
 - B. The kiln and calciner firing will stop
 - C. The preheater fan damper will close
 - D. The last two cooler fans will stop and the air flows to all other cooler fans will reduce to preset minimum
2. Stop the kiln drive.
3. Reduce the cooler grate speeds to minimum.
4. Reduce the primary air fan damper.
5. Stop the shell cooling fans.
6. Close the tertiary air damper.
7. Start kiln rotation operation as outlined above.
8. Stop the cooler grates and operate for 5 minutes every 30 minutes.

Extended Shutdowns

Where shutdown of kiln extends over a prolonged period of time, all machinery not required for rotation of kiln and cooling of burner pipe must be stopped

1. Stop the dust conveyance system when the system is empty.
2. Stop the compressors.
3. Prepare plans for subsequent clean-up operation in kiln, preheater, cooler, and baghouse.
4. After the kiln has cooled off, stop the primary air fan.
5. Stop the clinker conveying system.
6. Plan for maintenance and repair work prior to startup.

Normal Raw Mill Shutdown

The shutdown of the raw mill while the kiln continues to operate is accomplished by stopping the raw meal feed, the raw mill fan and the raw mill quickly and as simultaneously as possible. The dampers isolating the raw mill are then quickly closed. The shutdown of the raw mill can create a slight imbalance in the kiln system causing short-term spikes in emissions. The excess emissions will be minimized by good operating practices.

Normal Clinker Cooler Shutdown

The clinker cooler is shutdown following the shutdown of the kiln by cutting back on the airflow through the clinker cooler until any residual clinker in the cooler is sufficiently cool. At that time, the clinker cooler fan can be shut off. The clinker cooler baghouse operates at normal conditions during the entire time the clinker cooler fan operates.

There are no excess emissions associated with the shutdown of the clinker cooler.

Attachment 6: Startup Procedures for other Affected Facilities

Coal Mill Startup

The coal mill is required to operate when the kiln is operating. The coal mill is a source of PM and PM10 emissions and discharges through a baghouse. The coal mill is started as soon as sufficient heat is available from the clinker cooler to dry the coal. The coal mill is started by opening the dampers isolating the coal mill; and quickly and as simultaneously as possible starting the coal mill fan, the coal mill and the coal mill feed.

No excess emissions are expected as a result of the coal mill startup.

Material Handling Systems Startup

There are fabric filter dust collectors (baghouses) used to control particulate matter (PM and PM10) emissions from emission points associated with the raw mill, clinker handling, the finish mill, cement handling and coal handling. Startup of these systems involves powering the system I.D. exhaust fans and the baghouse cleaning systems prior to commencing process operations. No excess emissions are anticipated during the startup of any of these systems.

Attachment 7: Shutdown Procedures for other Affected Facilities

Normal Coal Mill Shutdown

The shutdown of the coal mill is associated with the shutdown of the kiln. The coal mill is shutdown by shutting off the coal mill feed, the coal mill and the coal mill fan quickly and as simultaneously as possible. The dampers isolating the coal mill are then quickly shut.

There are no excess emissions associated with the shutdown of the coal mill.

Material Handling Systems Shutdown

The dust collectors associated with the material handling emission points are operated until the associated processes are shutdown. Once no material is being processed, the dust collectors are shutdown by turning off power to the I.D. fans and the baghouse cleaning systems.

No excess PM or PM10 emissions are associated with the shutdown of these dust collectors.