

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NOTICE OF PERMIT

245 2035

6-8-14  
Permit  
245-2035

In the Matter of an  
Application for Permit by:

Mr. Daniel R. Fritrz, CEO/President  
Sumter Cement Company, LLC.  
P.O. Box 410  
Sanford, Florida 32008

DEP File No. 1190041-001-AC, PSD-FL-358  
Center Hill Plant  
Sumter County

Enclosed is the Final Permit Number 1190041-01-AC (PSD-FL-358) authorizing the construction of a greenfield portland cement plant with a dry process preheater/calcliner kiln, in-line raw mill, clinker cooler and associated materials handling, storage, conveyance and shipping facilities. The nominal capacity is 1,715,500 tons per year of clinker. The project will be located in the town of Center Hill, Sumter County. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.



Trina L. Vielhauer, Chief  
Bureau of Air Regulation

*Clara*

*[Handwritten mark]*

**CERTIFICATE OF SERVICE**

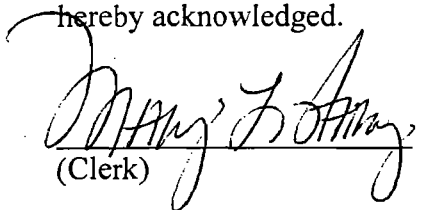
The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (\*) and copies were sent by U.S. Mail or electronic mail before the close of business on 2/6/06 to the person(s) listed:

Dan Fritz, SCC\*  
Joe Horton, SCC  
Diana Lamb, Clerk for City of Center Hill City Council  
Mayor, Center Hill  
Chair, Sumter County BCC  
Gregg Worley, U.S. EPA Region 4, Atlanta GA  
John Bunyak, National Park Service, Denver CO  
Mara Nasca, DEP SWD  
Porter Rivers III, P.E., B.P. Barber & Associates  
Cary Cohrs, NRCF dba ACC  
Marvin A. Beier  
Louise Racine  
Pauline T. Beier  
Anton and Anke Brok  
Ruth E. Brown  
H. Callahan  
Ann Cantlin-Elkins

Joyce Christie  
Carol Correa  
Margaret Dwyer  
Martin Farber  
Carol and Rudy Grossouw  
Everett Hadley  
Lorn and Judy Kerr  
Douglas R. Kinney  
John and Theresa McCormick  
Eugenie Mamarchev  
Ivan Mamarchev  
John Megan  
Sue Michalson  
Lawrence H. Paser  
June B. Paser  
Joel Rosenblum  
Hans Thiemann

**Clerk Stamp**

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

  
(Clerk) 2/6/06  
(Date)

## FINAL DETERMINATION

## Sumter Cement Company

## Center Hill Plant

DEP File No. 1190041-001-AC (PSD-FL-358)

On December 21, 2005 the Florida Department of Environmental Protection (Department) distributed an "Intent to Issue Air Construction Permit" to construct a greenfield portland cement plant with a dry process preheater/calcliner kiln, in-line raw mill, clinker cooler and associated materials handling, storage, conveyance and shipping facilities. The nominal capacity of the plant is 1,715,500 tons per year of clinker. The project will be located in the town of Center Hill, Sumter County.

The package included the Department's Draft Air Construction Permit, the "Intent to Issue Air Construction Permit," the "Technical Evaluation and Preliminary Determination," and the "Public Notice of Intent to Issue Air Construction Permit." The Department sent copies of the package to various persons, agencies, and municipalities. Sumter Cement Company (SCC) published the Public Notice in the *Sumter County Times* on December 22, 2005 and provided to the Department the required proof of publication.

The Department received numerous "form" type letters from the public throughout the comment period including comments regarding the Draft Air Construction Permit. The Department received written comments from SCC on January 23.

Comments received from SCC include their proposed revisions listed below (*italics*) followed by the Department's responses. Comments received from the public are also listed below (*italics*) followed by the Department's responses.

Any additions to permit conditions are double underlined and deletions are indicated by double strike-through notation.

1. *SCC provided the following comment in response to Section 3. D Pyroprocessing, Condition 21. Mercury Compliance Demonstration: b. Mercury Continuous Emissions Monitoring System (Hg-CEM):*

*In discussions with the Department SCC has outlined concerns over the unproven technology of a mercury Continuous Emission Monitor (CEM) in a cement application. Relatively no experience other than short-term testing has been conducted with monitors reporting to meet the new Performance Specification 12A (PS-12A). In testing of three different Hg-CEM's conducted at one cement plant in the US, several operational as well accuracy problems were noted<sup>1</sup>. SCC agrees with the Department that within the coming years advances in the technology should allow for a more reliable and accurate Hg-CEM. SCC would propose the following language modifications to the proposed condition (deletions ~~strike through~~ and additions double underlined):*

*21. Mercury Compliance Demonstration:*

- b. Mercury Continuous Emissions Monitoring System (Hg-CEMS): Within 60 days following the first year of operation, the owner or operator shall install any model of Hg-CEMS that has been demonstrated to meet the requirements in Performance Specification 12A (PS-12A), "Specifications and Test Procedures for Total Vapor phase Mercury Continuous Monitoring Systems in Stationary Sources," or that has passed verification tests conducted under the auspices of the U.S. Environmental Protection Agency's (EPA) Environmental Technology Verification (ETV) Program. During the subsequent 90 days, the owner or operator shall certify the Hg-CEMS. If the owner or operator can not certify the CEM within 90 days and provides to the Department information from the vendor of the CEM on reasons why the CEM can not be certified in the 90 day period, the Department shall grant and extension to*

certify the CEM. ~~and After certification the owner or operator will begin reporting Hg mass emissions data. The owner or operator shall adhere to the calibration drift and quarterly accuracy assessment procedures in 40 CFR Part 60, Appendix F or 40 CFR Part 75, Appendix B. The 12-month rolling mass emissions shall be estimated based on the actual data collected no later than 10 days following the end of the month. The CEM is not to be used as the means of compliance unless the owner or operator notifies the Department of the intent to use the CEM in this means~~ Upon certification, the owner or operator may use the Hg-CEMS to demonstrate compliance with the cumulative 12-month rolling mass emission limitation (184 pounds per rolling 12-month period) in lieu of the procedures described in the preceding paragraph. Prior to use of the Hg-CEMS as the method to demonstrate compliance, the owner or operator shall submit written notice to the Department, and receive approval for a missing data substitution plan. For purposes of this requirement, the first year of operation ends 365 calendar days following the first day the kiln produces clinker.

After 365 days of operation of the Hg-CEM the owner or operator can request to the Department for removal of the CEM if it is not to be used as the means of compliance.

[Rules 62-4.070(3) and 62-212.400(2)(g), F.A.C.]

As discussed with the Department, should known problems be identified in either other industrial uses of the CEM or specifically in cement applications prior to the required date of installation, SCC would request the ability to delay the installation requirements until such known deficiencies are corrected.

Reasons by which SCC would deem necessary to request the removal of the CEM from the Department after 365 days of operation of the CEM would include any of the following:

- The CEM is not able to achieve certification to the PS 12A within the 365 day period with the help of the Vendor and upon providing the Department with information from the Vendor in support of this.
- The CEM is not able to achieve an acceptable runtime as specified in the EPA performance specification despite best efforts by SCC and the Vendor. SCC would provide information to the Department to support the request and document why sufficient runtime can not be achieved.
- The CEM requires sustainable maintenance to achieve either acceptable accuracy or runtime. SCC would provide information to the Department in support of this request as well as information from the vendor on necessary maintenance or extraordinary circumstances.
- The CEM does not accurately reflect Mercury emissions as verified through long term comparisons with mass balances or through Stack Testing via an EPA approved method.

### Response

Mercury monitoring requirements included in the SCC permit provide reasonable assurance to the Department that mercury emissions from the facility remain below permitted levels. To date, mercury emissions from cement plants have typically been estimated using mass balance procedures (as outlined in the SCC permit), or through stack testing methods. The Department is now requiring the installation and operation of a mercury CEMS at the SCC Center Hill Plant. In light of the recent Federal mercury monitoring requirements imposed on the coal-fired power industry, the Department does not feel that this requirement is unreasonable or technically infeasible. The Department has every confidence that by the required time of installation of the mercury CEMS, the technology will be established and proven reliable, not only for coal-fired electric utilities, but for the cement industry as well. There is every expectation that the mercury CEMS will prove a more accurate means of reporting emissions, allowing SCC to eliminate the burdensome process of estimating mercury emissions through fuel and materials sampling.

However, the Department recognizes SCC's concerns regarding the "unproven technology" of continuous mercury monitoring. It is not unreasonable to allow for an extension of time to certify the mercury CEMS given legitimate, well-founded difficulties during certification. Although the Department sees it as unlikely, it is also not unreasonable to recognize the possibility of failure of the mercury CEMS technology to meet expectations as a monitoring requirement and possible method of compliance. Therefore, the Department will allow for a request by the owner or operator, for removal of the mercury CEMS under certain conditions if the CEMS is not to be used as a method of compliance. However, every effort should also be made to secure an alternate vendor with more proven technologies.

The permit does not prohibit SCC from requesting removal of the mercury CEMS. Without making a determination on the issue, the Department acknowledges SCC may make such a request for the reasons listed by SCC above and reiterated below. These conditions will not become a part of the final permit, however this document will become a part of the facility's official file.

- The CEMS is not able to achieve certification to the PS 12A requirements, after every reasonable effort, within the 365 day period with the help of the vendor. Sufficient supporting information should be supplied to the Department by the vendor.
- The CEMS is not able to achieve an acceptable runtime as specified in the EPA performance specification despite best efforts by SCC and the vendor. SCC should provide information to the Department documenting the reasons that sufficient runtime cannot be achieved.
- The CEMS requires excessive and unreasonably costly maintenance to achieve either acceptable accuracy or runtime. SCC should provide information to the Department in support of this request as well as information from the vendor on necessary maintenance or extraordinary circumstances.
- The CEMS cannot produce valid data and/or data does not accurately reflect Mercury emissions as verified through long term comparisons with mass balances or through stack testing via an EPA approved method or an alternate sampling method approved by DEP.

The Department will change Section III. D. Pyroprocessing, Condition 21.b. as follows:

21. Mercury Compliance Demonstration:

- b. *Mercury Continuous Emissions Monitoring System (Hg-CEMS):* Within 60 days following the first year of operation, the owner or operator shall install any model of Hg-CEMS that has been demonstrated to meet the requirements in Performance Specification 12A (PS-12A), "Specifications and Test Procedures for Total Vapor phase Mercury Continuous Monitoring Systems in Stationary Sources," or that has passed verification tests conducted under the auspices of the U.S. Environmental Protection Agency's (EPA) Environmental Technology Verification (ETV) Program. During the subsequent 90 days, the owner or operator shall certify the Hg-CEMS. If the vendor provides to the Department verification of certification difficulties such that the CEMS cannot be certified by the certification deadline, and every reasonable effort has been made to do so, the Department shall grant a reasonable extension of time to certify the CEMS. . and After certification the owner or operator will begin reporting Hg mass emissions data. The owner or operator shall adhere to the calibration drift and quarterly accuracy assessment procedures in 40 CFR Part 60, Appendix F or 40 CFR Part 75, Appendix B. The 12-month rolling mass emissions shall be estimated based on the actual data collected no later than 10 days following the end of the month. The CEMS shall be used as the method of compliance only if the owner or operator notifies the Department of the intent to use the CEMS ~~Upon certification, the owner or operator may use the Hg-CEMS to demonstrate compliance with the cumulative 12-month rolling mass emission limitation (184 pounds per rolling 12-month period) in lieu of the procedures described in the preceding paragraph. Prior to use of the Hg-CEMS as the method to demonstrate compliance, the owner or operator shall submit written notice to the Department, and receive approval for a~~

missing data substitution plan. For purposes of this requirement, the first year of operation ends 365 calendar days following the first day the kiln produces clinker.

If, after 365 days of operation of the Hg-CEMS, the CEMS is not to be used as the method of compliance and the permittee can document that data from the CEMS is inaccurate or excessively invalid, and/or that the CEMS has proven to be unreliable and unreasonably burdensome, the owner or operator may request the removal of the Hg CEMS requirements.

[Rules 62-4.070(3) and 62-212.400(2)(g), F.A.C.]

2. *SCC provides the following comment in response to Section 3. F Finish Mills Cement Processing, Condition 6. Process Rate Specifications:*

*The two finish mills were proposed with a maximum annual production rate of 2,531,640 tons of cement in the application. The condition does not clearly identify this as the maximum rate as used in the application and instead implies a maximum annual rate of 170 tons of cement for each mill at the allowed 8760 hours of operation. This equals a maximum annual rate of 2,978,400 tons of cement, which was not reflected in the application.*

*SCC would request the following addition to the condition (deletions ~~strickthrough~~ and additions double underlined):*

6. Process Rate Specification: Each finish mill may process up to 170 tons per hour (TPH) of clinker, gypsum or limestone to produce an equal amount of cement. Total cement production is limited to 2,531,640 tons per year. [Applicant Request]

*{Note: The finish mills are capable of processing more clinker than can be produced by the on-site pyroprocessing system. Any projects to utilize the additional capacity would constitute a modification per Section 2, Condition 7.}*

### Response

The Department is confident that the requirements of the above condition 6 are sufficient. The 170 TPH limit is a peak maximum hourly rate. The Department is aware that the annual potential cement production, based on this number, is greater than the maximum annual rate identified in the application. However, cement production is ultimately limited by clinker production, and the additional limit seems redundant and unnecessarily burdensome. The Department will not change Section III, F. Finish Mills Cement Processing, Condition 6 as requested.

3. *SCC provides the following comment in response to Section 3. F Finish Mills Cement Processing, Condition 9. Testing Requirements:*

*The condition is unclear as to which sources shall be stack tested and which sources are subject to visual emission testing requirements. SCC would propose the following language modifications to the proposed condition (deletions ~~strickthrough~~ and additions double underlined):*

9. Testing Requirements: ~~Each~~ Emission points DC-02 and DC-04 shall be stack tested to demonstrate initial compliance with the applicable emission standards for PM/PM<sub>10</sub> and visible emissions. All other emission points shall be tested for visible emissions only. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup. Thereafter, compliance with the particulate limits (PM/PM<sub>10</sub>) shall be demonstrated within the 12 month period prior to each renewal of the operation permit and compliance with the visible emissions limits for each unenclosed transfer point shall be demonstrated during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). [Rule 62-297.310(7)(a), F.A.C.]

**Response**

The intent of the above condition is that each emission point shall be tested to demonstrate compliance with the applicable standard, whatever the applicable standard/s may be for each point. It is not intended to require particulate testing for every emission point included in this unit. The above requested changes will be made to Section III. F. Finish Mills Cement Processing, Condition 9 for clarification:

4. *SCC provides the following comment in response to Section 3. G Coal and Petroleum Coke Grinding Systems, Condition 8. Testing Requirements:*

*The condition is unclear as to which sources shall be stacked tested and which sources are subject to visual emission testing requirements. SCC would propose the following language modifications to the proposed condition (deletions ~~strikethrough~~ and additions double underlined):*

8. *Testing Requirements: Each Emission points DC-06 and DC-07 shall be stack tested to demonstrate initial compliance with the applicable emission standards for PM/PM<sub>10</sub> and visible emissions. All other emission points shall be tested for visible emissions only. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup. Thereafter, compliance with the particulate limits (PM/PM<sub>10</sub>) shall be demonstrated within the 12 month period prior to each renewal of the operation permit and compliance with the visible emissions limits for each unenclosed transfer point shall be demonstrated during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). [Rule 62-297.310(7)(a), F.A.C.]*

**Response**

The intent of the above condition is that each emission point shall be tested to demonstrate compliance with the applicable standard, whatever applicable standard/s may be for each point. It is not intended to require particulate testing for every emission point included in this unit. The above requested changes will be made to Section III. G. Coal and Petroleum Coke Grinding Systems, Condition 8 for clarification.

5. *SCC provides the following comment in response to Section 3.H Coal and Petroleum Coke Conveying, Condition 6. Testing Requirements:*

*The condition is unclear as to which sources shall be stacked tested and which sources are subject to visual emission testing requirements. SCC would propose the following language modifications to the proposed condition (deletions ~~strikethrough~~ and additions double underlined):*

6. *Testing Requirements: Each emission point shall be ~~stack~~ tested to demonstrate initial compliance with the visible emissions standards. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup. Thereafter, compliance with the visible emissions limits for each unenclosed transfer point shall be demonstrated during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). [Rule 62-297.310(7)(a), F.A.C.]*

**Response**

The emission points included in this unit are associated with material handling and transfer. The Department will change Section III. H. Coal and Petroleum Coke Conveying, Condition 6 as requested above.

6. All public written comments received during the public comment period for this project were copies of a single form-type letter signed by various people living within Sumter and adjacent counties. The letter also served as written comment regarding the recently issued Intent to Issue Air Construction Permit to the American Cement Company, Sumterville Plant (1190042-001-AC, PSD FL-361). The letter included the following request:

*While I am encouraged to see your decision to order CEM (continuous emissions monitoring) for mercury in the two referenced facilities, I believe that ALL parameters monitored by the CEM packages in these two facilities should be required, as a condition of their finalized permits, to be available continuously on-line in a real-time format in a web site to be maintained by the operators of these facilities, said web sites to be available for access at any time by the public to review the data displayed.*

**Response**

In response to this request, the following specific condition will be added to Section III. D. Pyroprocessing System, Condition 29, CEMS Data Requirements, as 29.g:

g. Public Access: Emission data will be available in real time on the company website.

7. Also included in the above mentioned form-letter, were the following comments:

*I wish to request that as a condition of these permits and prior to start up of ANY of these facilities that the applicants be required to conduct a formal Countywide Mercury Background Study; and that as a condition of their DEP permit(s), that every 3 years of operation this study is to be repeated and results promptly made public. I request this matter be brought to the attention of Dr. Tom Atkeson of DEP, and request you solicit his recommendations as to how best to establish a reasonable and adequate protocol for these studies.*

**Response**

The SCC Center Hill plant will have very stringent mercury monitoring requirements. This facility will be the first cement plant in the United States at which a continuous mercury emissions monitor will be required. These monitoring requirements ensure that the Department and the community maintain an accurate assessment of the mercury emissions from this facility. The facility's potential mercury emissions are too low to trigger the Department's regulatory authority for mercury emissions. Therefore, a background study such as suggested is beyond the purview of the Department at this time.

However, within the DEP, the Division of Resource Assessment and Management (DRAM) has been established to ensure maximum environmental protection through applied research and the effective integration and utilization of agency data. Within the DRAM organization is the South Florida Mercury Science Program (SF MSP). This is a private-public partnership led by Florida DEP which is investigating the problem of unacceptable mercury levels in the Florida Everglades. While the SF MSP is focused on the Everglades and South Florida, virtually all of its work has statewide and national application. The SF MSP website describes SF MSP strategies, plans, activities, and results and can be found at the following web location:  
<http://www.dep.state.fl.us/labs/mercury/index.htm>

The Department, in partnership with the U.S. Fish and Wildlife Service, the U.S. Geological Survey, and the Army Corps of Engineers, is helping to fund the new Wetlands Ecological Research Aviary in Gainesville. One study at the aviary will help determine how tiny amounts of mercury affect the ability of wading birds to hunt and reproduce. Additional information is available by contacting the University of Florida IFAS/Department of Wildlife Ecology and Conservation at [www.wec.ufl.edu/](http://www.wec.ufl.edu/).

The final decision by the Department is to issue the permit with the changes noted.





# Department of Environmental Protection

Jeb Bush  
Governor

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

Colleen M. Castille  
Secretary

## PERMITTEE:

Sumter Cement Company, LLC  
Post Office Box 410  
Branford, Florida 32008

DEP File No. 1190041-001-AC  
Air Permit No. PSD-FL-358  
Center Hill Cement Plant  
Expiration date: June 30, 2010

*Authorized Representative:*  
Dan Fritz, CEO/President

## PROJECT AND LOCATION

This permit authorizes the construction of a greenfield portland cement plant with a dry process preheater/calcliner kiln, in-line raw mill, clinker cooler and associated materials handling, storage, conveyance and shipping facilities. The nominal capacity is 1,715,500 tons per year of clinker. The project will be located in the town of Center Hill, Sumter County.

## STATEMENT OF BASIS

The permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The project was processed in accordance with the requirements of Rule 62-212.400, F.A.C., the preconstruction review program for the Prevention of Significant Deterioration (PSD) of Air Quality. The permittee is authorized to perform the proposed work in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

The attached Appendices are made a part of this permit:

- |              |  |
|--------------|--|
| Appendix BD  | Final BACT Determination and Emissions Standards |
| Appendix C   | Common State Rules                               |
| Appendix GC  | Construction Permit General Conditions           |
| Appendix LLL | NESHAP Subpart LLL Requirements                  |
| Appendix OOO | NSPS Subpart OOO Requirements                    |
| Appendix Y   | NSPS Subpart Y Requirements                      |

*Michael G. Cooke*

Michael G. Cooke, Director  
Division of Air Resources Management

Effective Date: 2/6/08

## SECTION I. GENERAL INFORMATION

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### FACILITY DESCRIPTION

The proposed facility will be a dry process greenfield portland cement plant incorporating a dry process kiln with a preheater and calciner (PH/C). The nominal capacity is 1,715,500 tons per year of clinker. Major equipment associated with the main components of the plant will include the following:

- A raw materials storage building (MSB) and a limestone storage building;
- A primary crusher at the quarry and belt conveyors to MSB;
- Raw material piles stored inside of the storage buildings. The piles will include limestone, alumina sources (e.g. bauxite and coal ash), iron sources (e.g. mill scale, slag, and iron ore), silica sources (e.g. sand, and clay), and additives (e.g. feldspar, and gypsum);
- Materials handling equipment including reclaimers, stackers, belt conveyors, covered conveyors from the MSB and limestone storage building to the raw mill, control system/analyzer, etc.;
- An in-line raw mill that simultaneously dries raw materials using the exhaust gas from the kiln, PH/C, and clinker cooler;
- A preheater with staged combustion calciner and selective non-catalytic reduction (SNCR) system;
- An air heater for use when additional drying capacity is required;
- A nominal 12,000 ton per day blending silo;
- An indirect-firing system with a Low NO<sub>x</sub> main kiln burner capable of burning coal, petroleum coke, fuel oil, and natural gas;
- A whole tire feeder and/or tire gasification system.
- A clinker cooler with cooling air fans, and hot air ducting to the kiln, PH/C, and raw mill;
- Clinker storage and grinding including two finish mills with air separators, clinker silos with metering devices, limestone and gypsum bins and associated conveyors;
- Cement transfer and storage silos, truck loadouts and packhouse; and
- A nominal 28.4 TPH coal and/or petroleum coke grinding system with associated mill, storage facility, associated conveyors, and equipped with a fabric filter baghouse.

### REGULATORY CLASSIFICATION

*Title III:* The cement plant will be a major source of hazardous air pollutants (HAP).

*Title V:* The cement plant will be a Title V major source in accordance with Chapter 62-213, F.A.C. because the potential emissions of at least one regulated pollutant exceed 100 tons per year. Regulated pollutants include pollutants such as carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM/PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), and volatile organic compounds (VOC).

*PSD:* The facility is located in an area that is designated as “attainment”, “maintenance”, or “unclassifiable” for each pollutant subject to a National Ambient Air Quality Standard. It is classified as a “portland cement plant”, which is one of the 28 Prevention of Significant Deterioration (PSD) Major Facility Categories with the lower PSD applicability threshold of 100 tons per year. Potential emissions of at least one regulated pollutant exceed 100 tons per year, therefore the facility is classified as a major source of air pollution with respect to Rule 62-212.400 F.A.C., Prevention of Significant Deterioration of Air Quality.

*NSPS:* Portions of the cement plant are subject to the following New Source Performance Standards (NSPS) in 40 CFR 60: Subpart A (General Provisions); Subpart Y (Coal Preparation Plants); and Subpart OOO (Non Metallic Mineral Processing). Any affected source subject to the provisions of 40 CFR 63, Subpart LLL

## SECTION I. GENERAL INFORMATION

(Portland Cement Manufacturing Industry) is exempt from any otherwise applicable new source performance standard contained in 40CFR 60, Subpart F (Portland Cement Plants).

*NESHAP:* Portions of the cement plant are subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) in 40 CFR 63: Subpart A (General Provisions); and Subpart LLL (Portland Cement Manufacturing Industry).

*State Rules:* The cement plant is subject to state Rule 62-296.407, F.A.C. (Portland Cement Plants).

### EMISSIONS UNITS

This permit authorizes the construction of a new Portland cement plant. The project includes the following new emissions units:

| EU ID | Emissions Unit Description   |
|-------|--|
| 001   | (CH-1) - Primary Crushing, and Associated Conveyors. Includes front end loaders to primary crusher, primary crusher operation, base rock and limestone conveyors to base rock storage pile and limestone storage building. |
| 002   | (CH-2) - Raw Material Conveying and transfer to and from storage piles.  |
| 003   | (CH-3) - Raw Material Processing and Storage. Including raw material transport from raw mill to blend silo, blend silo, fly ash silo, and kiln feed and fly ash transport to kiln.   |
| 004   | (CH-4) - Pyroprocessing System. Includes preheater/precalciner kiln with in-line raw mill, clinker cooler and air heater.  |
| 005   | (CH-5) - Clinker Storage and Conveying. Includes clinker transport from kiln; clinker, limestone, and gypsum silos; and clinker, limestone and gypsum conveying to finish mills.   |
| 006   | (CH-6) - Finish Mills Cement Processing. Includes two finish mills, cement silos, packaging plant and truck loadout.   |
| 007   | (CH-7) - Coal and Petroleum Coke Grinding System. Includes coal mill and ground coal/petroleum bins.   |
| 008   | (CH-8) - Coal and Petroleum Coke Conveying. Includes coal/petroleum coke handling and conveying from unloading to storage bins.  |
| 010   | (CH-10, CH-11) - Fugitive Dust From Storage Piles, Paved Roads, and Unpaved Roads.   |

### RELEVANT DOCUMENTS

The documents listed are not a part of this permit; however, this information is specifically related to the permitting action and is on file with the Department.

- Application received on June 16, updated September 8, 2005
- Department's Request for Additional Information dated October 9, 2005
- Response to Request for Additional Information Received October 21, 2005
- Public Notice of Application published December 1, 2005
- Department's Technical Evaluation and Preliminary Determination dated December 21, 2005
- Department's Intent to Issue and Public Notice Package dated December 21, 2005
- Department's Final Determination and Best Available Control Technology Determination issued concurrently with this Final Permit

## SECTION II. ADMINISTRATIVE REQUIREMENTS

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1. Permitting Authority: All documents related to PSD applications for permits to construct or modify emissions units shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. Copies of all such documents shall also be submitted to the Compliance Authority. All documents related to applications for permits to construct minor sources of air pollution or to operate the facility shall be submitted to the Air Resources Section of the Department's Southwest District Office at 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Air Resources Section of the Department's Southwest District Office at 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926.
3. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.); and Title 40, Parts 51, 52, 60, 63, 72, 73, and 75 of the Code of Federal Regulations (CFR) adopted by reference in Rule 62-204.800, F.A.C. The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
4. Construction and Expiration: The permit expiration date includes sufficient time to complete construction, perform required testing, submit test reports, and submit an application for a Title V operation permit to the Department. Approval to construct shall become invalid for any of the following reasons: construction is not commenced within 18 months after issuance of this permit; construction is discontinued for a period of 18 months or more; or construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. In conjunction with an extension of the 18-month period to commence or continue construction (or to construct the project in phases), the Department may require the permittee to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for emissions units regulated by the project. For good cause, the permittee may request that this PSD air construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation at least sixty (60) days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, 62-210.300(1), and 62-212.400(6)(b), F.A.C.; 40 CFR 52.21(r)(2); 40 CFR 51.166(j)(4)]
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Relaxations of Restrictions on Pollutant Emitting Capacity. If a previously permitted facility or modification becomes a facility or modification which would be subject to the preconstruction review requirements of this rule if it were a proposed new facility or modification solely by virtue of a relaxation in any federally enforceable limitation on the capacity of the facility or modification to emit a pollutant (such as a restriction on hours of operation), which limitation was established after August 7, 1980, then at the time of such relaxation the preconstruction review requirements of this rule shall apply to the facility or modification as though construction had not yet commenced on it. [Rule 62-212.400(2)(g), F.A.C.]

## SECTION II. ADMINISTRATIVE REQUIREMENTS

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7. **Modifications:** No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rule 62-4.030 and Chapters 62-210 and 62-212, F.A.C.]
8. **Title V Permit:** This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions units. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### A. Primary Crushing

The specific conditions of this subsection apply to the following emissions unit after construction is complete.

| EU ID | Emission Unit Description   |
|-------|---|
| 001   | (CH-1) - Primary Crushing, and Associated Conveyors. Includes front end loaders to primary crusher, primary crusher operation, base rock and limestone conveyors to base rock storage pile and limestone storage building |

The primary crushing and conveying system contains the following emission points.

| Point ID | Emissions Point Description  |
|----------|--|
| CH-1-1   | Primary Crushing and Conveying – loader to primary crusher, primary crusher, and conveyors |
| CH-1-2   | Base Rock Conveying – belts to radial stacker  |
| CH-1-3   | Limestone Conveying - belts  |

#### APPLICABLE STANDARDS AND REGULATIONS

1. **BACT Determinations:** A determination of the Best Available Control Technology (BACT) was made for, particulate matter (PM/PM<sub>10</sub>). To satisfy the BACT requirements for this unit the visible emissions limits are surrogate standards for PM.
2. **NSPS Requirements:** This unit shall comply with all applicable requirements of 40 CFR 60, Subparts A (General Provisions) and OOO (Nonmetallic Mineral Processing Plants) adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Department determines that the BACT emissions performance requirements are as stringent as or more stringent than the limits imposed by the applicable NSPS provisions. Some separate reporting and monitoring may be required by the individual subparts.

#### EQUIPMENT DESCRIPTION

3. **Equipment Description:** The permittee is authorized to construct, operate, and maintain equipment needed for the raw material quarrying, crushing, and storage operation. Equipment will include a primary crusher at the quarry, and an enclosed limestone storage building (LSB) which will house the limestone storage piles. Enclosed belt conveyors will be constructed between the crusher and the LSB. Open conveyors will transport base rock to the base rock storage pile. [Applicant Request]

#### PERFORMANCE REQUIREMENTS

4. **Hours of Operation:** This emissions unit system is allowed to operate 8,760 hours per year. [Applicant Request, Rule62-210.200(PTE), F.A.C.]
5. **Process Rate Specification:** The crusher may process up to 2,143 tons per hour (TPH) of raw materials. No more than 3,798,428 tons of raw materials shall be processed during any consecutive 12 months.  
*{Permitting Note: The process rate includes an estimated raw materials moisture content of 17% by weight.}*  
[Rules 62-210.200 (PTE) and 62-4.070(3), F.A.C.]

#### EMISSIONS AND TESTING REQUIREMENTS

6. **Visible Emission Standards:** These opacity standards do not apply to truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher.
  - a. Fugitive emissions from the crusher shall not exceed 15% opacity.

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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#### A. Primary Crushing

- b. Fugitive emissions from any transfer point on belt conveyors or from any other affected facility shall not exceed 10% opacity.

[Rule 62-212.400(BACT), F.A.C.; and 40 CFR 60, Subpart 000]

7. Visible Emissions Tests: Compliance with the visible emission limits shall be determined by conducting EPA Method 9 tests. Initial tests shall be conducted 60 days after achieving the maximum production rate at which the unit will be operated, but no later than 180 days after initial startup. Thereafter, the permittee shall demonstrate compliance during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>) for the primary crusher. Tests shall be conducted in accordance with the applicable requirements in Appendix C of this permit as well as the applicable NSPS provisions.

#### REPORTING AND RECORD KEEPING

8. Test Reports: For each test conducted, the permittee shall file a test report including the information specified in Rule 62-297.310(8), F.A.C. with the compliance authority no later than 45 days after the last run of each test is completed. [Rules 62-297.310(8), F.A.C., and 40 CFR 60, Subpart 000]
9. Process Rate Information: The permittee shall maintain records of the monthly processing rate. Such reports shall be recorded and available for inspection no later than 10 days following the end of the month.

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### B. Raw Materials Conveying and Transfer

The specific conditions of this subsection apply to the following emissions unit after construction is complete.

| EU ID | Emissions Unit Description  |
|-------|---|
| 002   | (CH-2) - Raw Material Conveying and transfer to and from storage piles. |

The raw materials conveying and transfer systems contain all emission points associated with the following areas:

- Limestone Pile Handling
- Wet Coal Ash Hopper Building
- Wet Coal Ash Pile Handling
- Clay/Sand Hopper Building
- Clay/Sand Pile Handling
- Steel Slag Pile Handling
- Bauxite Pile Handling
- Limestone Conveying
- Wet Coal Ash Conveying
- Wet Coal Ash Conveying
- Clay/Sand Conveying
- Bauxite Conveying
- Steel Slag/Iron Ore/Mill Scale Conveying
- Cross belt Analyzer
- Raw Mill Feed Conveying
- Gypsum/Limestone Conveying to Finish Mills

#### APPLICABLE STANDARDS AND REGULATIONS

1. **BACT Determinations:** A determination of the Best Available Control Technology (BACT) was made for, particulate matter (PM/PM<sub>10</sub>). To satisfy the BACT requirements for this unit the visible emissions limits are surrogate standards for PM.
2. **NESHAP Requirements:** This unit is subject to 40 CFR 63, Subpart A (Identification of General Provisions) and 40 CFR 63, Subpart LLL (National Emissions Standard for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry). The Department determines that the BACT emissions performance requirements are as stringent as or more stringent than the limits imposed by the applicable NESHAP provisions. Some separate reporting and monitoring may be required by the individual subpart.

#### EQUIPMENT

3. **Equipment Description:** The permittee is authorized to construct, operate, and maintain equipment needed for the conveyance and handling of the raw materials. Equipment will include reclaimers, conveyors, belts, loaders, hoppers, and a cross belt analyzer. [Applicant]

#### PERFORMANCE REQUIREMENTS

4. **Hours of Operation:** This emissions unit system is allowed to operate 8,760 hours per year. [Applicant Request, Rule62-210.200(PTE), F.A.C.]

#### EMISSIONS AND TESTING REQUIREMENTS

5. **Visible Emissions Standards:** Fugitive emissions from any emissions point shall not exceed 5% opacity. [Rule 62-212.400(BACT)]
6. **Compliance Demonstrations:** Each emission point shall be tested to demonstrate initial compliance with the emission standards for visible emissions in accordance with EPA Method 9. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup. Thereafter, compliance with the visible emission limits for each unenclosed transfer point shall be demonstrated during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). [Rules 62-4.070(3), 62-297.310(7)(a), F.A.C. and 40 CFR 63.1349(b)(2)]



**SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**

**B. Raw Materials Conveying and Transfer**

- 7. Periodic Monitoring Requirements: Each affected source subject to an opacity standard shall be periodically monitored using the procedures described in 40 CFR 63.1350(a) (4) (i) through (vii) to ensure compliance with the emissions limits of condition No. 6. [Rule 62-4.070(3), and 40 CFR, 63.1350, Subpart LLL]
- 8. Test Methods: Any required tests shall be performed in accordance with the following reference methods and the applicable requirements of Appendix C of this permit, and the applicable NESHAP provisions.

| Method | Description of Method and Comments                                       |
|--------|--|
| 9      | Visual Determination of the Opacity of Emissions from Stationary Sources |
| 22     | Visual Determination of Fugitive Emissions From Material Sources         |

**REPORTING AND RECORD KEEPING**

- 9. Test Reports: For each test conducted, the permittee shall file a test report including the information specified in Rule 62-297.310(8), F.A.C. with the compliance authority no later than 45 days after the last run of each test is completed. [Rules 62-297.310(8), F.A.C.]

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### C. Raw Material Processing and Storage

The specific conditions of this subsection apply to the following emissions unit after construction is complete.

| ID No. | Emissions Unit Description   |
|--------|--|
| 003    | (CH-3) - Raw Material Processing and Storage. Including raw material transport from raw mill to blend silo, blend silo, fly ash silo, and kiln feed and fly ash transport to kiln. |

The following emissions points in the raw materials processing and storage system are controlled by fabric filter baghouses.

| Point ID | Emissions Point Description                               |
|----------|---|
| NDC-01   | Raw Material Transport From Raw Mill to Homogenizing Silo |
| NDC-02   | Baghouse Dust Bin   |
| NDC-03   | Raw Material Transport to Homogenizing Silo               |
| NDC-04   | Homogenizing Silo Inlet                                   |
| NDC-05   | Homogenizing Silo   |
| NDC-06   | Homogenizing Silo Outlet                                  |
| NDC-07   | Kiln Feed Transport                                       |
| NDC-08   | Fly Ash Silo  |
| NDC-09   | Fly Ash Transport to Calciner                             |

#### APPLICABLE STANDARDS AND REGULATIONS

1. **BACT Determinations:** A determination of the Best Available Control Technology (BACT) was made for, particulate matter (PM/PM<sub>10</sub>). To satisfy the BACT requirements for this unit the visible emissions limits are surrogate standards for PM.
2. **NESHAP Requirements:** This unit is subject to 40 CFR 63, Subpart A (Identification of General Provisions) and 40 CFR 63, Subpart LLL (National Emissions Standard for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry). The Department determines that the BACT emissions performance requirements are as stringent as or more stringent than the limits imposed by the applicable NESHAP provisions. Some separate reporting and monitoring may be required by the individual subpart.

#### EQUIPMENT AND CONTROL TECHNOLOGY

3. **Equipment Description:** The permittee is authorized to construct, operate, and maintain equipment needed for the processing and storage of raw materials. Equipment will include one homogenizing silo (nominal throughput from blend silo of 2,553,018 TPY), one coal ash silo (nominal throughput 278,437 TPY), and associated conveyors, belts, and bucket elevators. [Applicant]
4. **Baghouse Controls:** Each emissions point identified for raw material processing and storage shall be controlled by a baghouse system. Each required baghouse shall be designed, operated, and maintained to achieve a PM design specification of 0.01 gr/dscf and a PM<sub>10</sub> design specification of 0.0085 gr/dscf. [Rule 62-212.400(BACT), F.A.C.]

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### C. Raw Material Processing and Storage

#### PERFORMANCE REQUIREMENTS

5. Hours of Operation: This emissions unit is allowed to operate 8,760 hours per year. [Applicant Request, Rule 62-210.200(PTE), F.A.C]

#### EMISSIONS AND TESTING REQUIREMENTS

6. Emissions Limits: Visible emissions are limited to 5% opacity from each of the above listed emissions points controlled by a baghouse. [Rule 62 -212.400(BACT), F.A.C.]

{Note: The baghouses are designed to control PM emissions to 0.01 grains/dry standard cubic foot (gr/dscf) and PM<sub>10</sub> emissions to 0.0085 gr/dscf. The 5% opacity limitation is consistent with this design and provides reasonable assurance that annual emissions of PM/PM<sub>10</sub> from the above emissions points will be less than 12.1/10.28 TPY. Exceedance of the 5% opacity limit shall be deemed an exceedance of this permit condition and not necessarily an exceedance of the opacity limitations given in 40 CFR 63, Subpart LLL.}

[Rules 62-4.070(3), 62-212.400, F.A.C. and 40 CFR 63.1348]

7. Compliance Demonstrations: Each emission point shall be tested to demonstrate initial compliance with the emission standards for visible emissions in accordance with EPA Method 9. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup. Thereafter, compliance with the visible emission limits for each emission point shall be demonstrated during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). [Rules 62-4.070(3), 62-297.310(7)(a), F.A.C. and 40 CFR 63.1349(b)(2)]
8. Periodic Monitoring Requirements: Each affected source subject to an opacity standard shall be periodically monitored using the procedures described in 40 CFR 63.1350(a) (4) (i) through (vii) to ensure compliance with the emissions limits of condition No. 6. [Rule 62-4.070(3), and 40 CFR, 63.1350, Subpart LLL]
9. Test Methods: Any required tests shall be performed in accordance with the following reference methods and the applicable requirements of Appendix C of this permit, and the applicable NESHAP provisions.

| Method | Description of Method and Comments                                       |
|--------|--|
| 9      | Visual Determination of the Opacity of Emissions from Stationary Sources |
| 22     | Visual Determination of Fugitive Emissions From Material Sources         |

#### REPORTING AND RECORD KEEPING

10. Baghouse O&M Plan: For each baghouse the permittee shall prepare an operation and maintenance (O&M) plan to address proper operation, parametric monitoring, and a schedule for conducting periodic inspections and preventive maintenance. Baghouse inspections and maintenance activities shall be recorded in a log. The O&M plan shall be submitted to the Compliance Authority prior to the initial compliance tests for this unit. [Rule 62-4.070(3), and 40 CFR 63.1350, Subpart LLL]
11. Test Reports: For each test conducted, the permittee shall file a test report including the information specified in Rule 62-297.310(8), F.A.C. with the compliance authority no later than 45 days after the last run of each test is completed. [Rules 62-297.310(8), F.A.C.]

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### D. Pyroprocessing System

The following specific conditions apply to the following emissions unit after construction:

| ID No. | Emissions Unit Description  |
|--------|---|
| 004    | (CH-4) - Pyroprocessing System. Includes preheater/precalciner kiln with in-line raw mill, clinker cooler and air heater. |

#### APPLICABLE STANDARDS AND REGULATIONS

1. **BACT Determinations:** A determination of the Best Available Control Technology (BACT) was made for carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), volatile organic compounds (VOC), and particulate matter (PM/PM<sub>10</sub>).
2. **NESHAP Requirements:** This unit is subject to 40 CFR 63, Subpart A (Identification of General Provisions) and 40 CFR 63, Subpart LLL (National Emissions Standard for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry). The Department determines that the BACT emissions performance requirements are as stringent as or more stringent than the limits imposed by the applicable NESHAP provisions for particulate matter. Some separate reporting and monitoring may be required by the individual subpart.

#### EQUIPMENT AND CONTROL TECHNOLOGY

3. **Pyroprocessing System:** : The permittee is authorized to construct a pyroprocessing system consisting of a dry process pre-heater/calciner rotary kiln with in-line raw mill that simultaneously dries raw materials using the exhaust gas from the kiln, PH/C, or cooler. The preheater is designed with a staged combustion calciner and a selective non-catalytic reduction (SNCR) system. The kiln will be equipped with a Low NO<sub>x</sub> main kiln burner capable of burning coal, petroleum coke, natural gas, used oil, and fuel oil. Other equipment includes an air heater for use when additional drying capacity is required, and a clinker cooler with cooling air fans, and hot air ducting to the kiln, PH/C and/or in-line raw mill. The air heater will be capable of firing fuel oil and natural gas. All emissions from the pyroprocessing system are directed to a single stack. The exhaust stack shall be no more than 16.5 feet in diameter and no less than 427 feet tall. [Applicant Request]
4. **Kiln Design:** The kiln will be designed to process approximately 353 tons per hour of dry preheater feed material (including baghouse dust recirculation and excluding dry coal ash) with an annual nominal throughput of 2,784,370 tons per year. However, preheater feed rate is ultimately restricted through clinker production limitations. [Applicant Request]
5. **NO<sub>x</sub> Controls**
  - a) **Low-NO<sub>x</sub> Burners and Indirect Firing:** The main kiln and calciner will be equipped with Low NO<sub>x</sub> burners that will create distinct combustion zones within the flame. An indirect firing system will be used to reduce the amount of primary air injected with the fuel used in the main kiln burner.
  - b) **Staged Combustion in the Calciner (SCC):** Introduction of fuel, air and meal to the calciner will be staged or sequenced for the reduction of NO<sub>x</sub> emissions.
  - c) **SNCR:** A selective non-catalytic reduction (SNCR) system shall be designed, constructed and operated to achieve the permitted levels for NO<sub>x</sub> emissions from the pyroprocessing system. The SNCR system will consist of an aqueous ammonia and/or urea tank, pumps, piping, compressed air delivery, injectors, control system, and other ancillary equipment. Aqueous ammonia and/or urea solution will be injected at a location(s) in the preheater/calciner with an appropriate temperature profile to support the SNCR process.

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### D. Pyroprocessing System

6. Particulate Matter (PM/PM<sub>10</sub>) Controls: The permittee shall install a baghouse control system to remove particulate matter emissions from the pyroprocessing exhaust gas stream to achieve the PM/PM<sub>10</sub> emissions standards specified in this permit.
7. Sulfur Dioxide Controls: The use of low-sulfur raw materials will help to keep SO<sub>2</sub> emissions below permitted levels. Additionally, a hydrated lime injection system shall be installed for utilization as needed to reduce SO<sub>2</sub> emissions.

#### PERFORMANCE REQUIREMENTS

8. Hours of Operation: The hours of operation for this emissions unit are not limited (8760 hours per year). [Rule62-210.200(PTE), F.A.C.]
9. Process Rate Limitations: Kiln preheater feed rate and dry coal ash shall be monitored and recorded for purposes of determining clinker production. The clinker production rate of the kiln shall not exceed 208.3 tons per hour (24-hour rolling average) and 1,715,500 tons during any consecutive 12 month period. The clinker production rate shall be determined using kiln feed and dry coal ash feed, and kiln and dry coal ash feed loss on ignition (LOI) factors. The feed rates and kiln feed LOIs shall be based on a 30 operating-day block average of daily measurements. For purposes of this requirement, an operating day is any day that the kiln produces clinker or burns fuel. [Rules 62-4.070(3), and 62-212.200(PTE), F.A.C.]
10. Authorized Fuels: Only the following authorized fuels shall be fired in the pyroprocessing system (kiln and calciner): coal, petroleum coke, fly ash, gasified tires, whole or chipped tires, natural gas, distillate oil, and/or on-specification used oil fuel. The maximum heat input rate to the pyroprocessing system (kiln and calciner) shall not exceed 15,300 MMBtu per day (nominally 638 MMBtu/hr).
  - a) The permittee is authorized to install a tire gasification system with an airlock on the feed mechanism. The maximum heat input rate from gasified tires shall not exceed 40% of the total pyroprocessing heat input rate (kiln and calciner) and shall not exceed 255 MMBtu per hour. The remaining 60% of the total pyroprocessing heat input rate shall come from other authorized fuels. The permittee shall provide details of the gasifier system within 30 days of finalizing the design.
  - b) The maximum heat input rate from firing whole or chipped tire derived fuel (TDF) shall not exceed 15% of the total pyroprocessing heat input rate (kiln and calciner) and shall not exceed 96 MMBtu per hour. The remaining 85% of the total pyroprocessing heat input rate shall be from the firing of other authorized fuels. TDF shall be directly fed into the kiln system at the transition section between the base of the calciner and the point where gases exit the kiln. The tire feed mechanism shall be designed with an airlock/gate system. Tires shall be stored, handled and managed in accordance with the provisions of Chapter 62-711, F.A.C.
  - c) Dry coal ash may be injected directly into the calciner.
  - d) The air heater shall fire only natural gas or distillate fuel oil (No. 2 or No. 4) with a design maximum heat input rate of 80 MMBtu per hour.
  - e) The firing of "on-specification" used oil fuel shall not exceed 2000 gallons per hour and 3,000,000 gallons during any consecutive 12 months. On-Specification Used Oil Fuel shall meet the following specifications:
    1. Arsenic shall not exceed 5.0 ppm;
    2. Cadmium shall not exceed 2.0 ppm;
    3. Chromium shall not exceed 10.0 ppm;
    4. Lead shall not exceed 100.0 ppm;
    5. Total halogens shall not exceed 1000 ppm; and

**SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**

**D. Pyroprocessing System**

6. Flash point shall not be less than 100° F.

Used oil fired as a fuel may be generated from on site sources or purchased from a vendor. Used oil shall not contain any PCB's. [40 CFR 279.61; 40 CFR 761.20(e); Rule 62-4.070(3), F.A.C.]

11. **Prohibited Fuels and Materials:** The owner or operator shall not introduce into any part of the process or emission control equipment any of the following fuels and materials: hazardous wastes; petroleum contaminated soil or materials; used oil, oil fuels, or solid fuels other than those allowed by this permit; or solid wastes other than tires as allowed by this permit. [Rule 62-4.070(3), F.A.C.]
12. **Cement Kiln Dust:** Cement kiln dust shall be re-circulated in the process and shall not be directly discharged from process or emission control equipment. Cement kiln dust removed from process equipment during maintenance and repair shall be confined and controlled at all times and shall be managed in accordance with the applicable provisions of 40 CFR 261. [Rule 62-4.070(3), F.A.C.]

**EMISSIONS AND TESTING REQUIREMENTS**

13. **Emissions Standards:** Emissions from the pyroprocessing system (including the air heater) shall not exceed the following emissions standards.

| Pollutant                        | Emission Limit                           | Averaging Time   | Compliance Method          | Basis      |
|----------------------------------|--|------------------|----------------------------|------------|
| CO                               | 2.9 lb/ton of clinker                    | 30-day rolling   | CEMS                       | BACT       |
|                                  | 604.1 lb/hr                              |                  |                            |            |
| NO <sub>x</sub> <sup>a</sup>     | 1.95 lb/ton of clinker                   | 30-day rolling   | CEMS                       | BACT       |
|                                  | 406.19 lb/hr                             |                  |                            |            |
| PM/PM <sub>10</sub> <sup>b</sup> | 0.153 lb/ton of clinker                  | Three 1-hr runs  | Annual Test                | BACT       |
|                                  | 31.87 lb/hr                              | 6-minute block   | COMS                       |            |
|                                  | 10 % opacity                             |                  |                            |            |
| SO <sub>2</sub>                  | 0.20 lb/ton of clinker                   | 24-hr rolling    | CEMS                       | BACT       |
|                                  | 41.66 lb/hr                              |                  |                            |            |
| VOC <sup>c</sup>                 | 0.115 lb/ton of clinker                  | 30-day block     | CEMS                       | BACT       |
|                                  | 23.95 lb/hr                              |                  |                            |            |
| Dioxin/Furan <sup>d</sup>        | 0.20 ng/dscm (TEQ) @ 7% O <sub>2</sub>   | Three 3-hr runs  | Temperature Monitoring     | NESHAP LLL |
|                                  | 0.40 ng/dscm (TEQ) @ 7% O <sub>2</sub>   |                  |                            |            |
| THC                              | 50 ppmvd (as propane)@ 7% O <sub>2</sub> | 30-day block     | CEMS                       | NESHAP LLL |
| Mercury <sup>e</sup>             | 184 lb/12-month period                   | 12-month rolling | Fuel/Materials and/or CEMS | Avoid PSD  |

- a. For an “initial startup period” NO<sub>x</sub> emissions shall not exceed 3.0 lb/ton of clinker (624.9 lb/hour) based on a 30-day rolling average. The “initial startup” period shall begin after initial certification of the NO<sub>x</sub> CEMS and shall end as soon as any of the following conditions are met:
- 1) The Kiln system produces 121,500 tons of clinker or more in any 30-day rolling period.
  - 2) The Kiln system produces 250,000 tons of clinker.
  - 3) 365 days calendar days elapse after initial certification of the NO<sub>x</sub> CEMS.

After the “initial startup” period ends, NO<sub>x</sub> emissions shall not exceed 1.95 lb/ton of clinker (406.19 lb/hour) based on a 30-day rolling average. These requirements do not waive or vary any applicable NSPS or NESHAP monitoring or record keeping requirements.

- b. All PM emitted from the baghouse exhaust is assumed to be PM<sub>10</sub>. The BACT standard for PM is equivalent to approximately 0.09 lb per ton of preheater feed material. The emissions limits for particulate matter and visible emissions imposed by Rule 62-212.400(BACT) are as stringent as or

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

#### D. Pyroprocessing System

more stringent than the limits imposed by the applicable NESHAP provisions. The BACT requirements do not waive or vary any applicable NESHAP monitoring or record keeping requirements.

- c. Compliance shall be demonstrated by THC CEMS. VOC emissions shall be measured as total hydrocarbons (THC) and expressed as "propane" for the mass emissions rate.
- d. Dioxin/furans shall not exceed 0.20 ng/dscm (TEQ) @ 7% oxygen when the average of the performance test run temperatures at the inlet to the particulate matter control device is 204° C (400° F) or more and shall not exceed 0.40 ng/dscm (TEQ) @ 7% oxygen when the average of the performance test run average particulate matter control device inlet temperature is 204° C (400° F) or less.
- e. Compliance shall be demonstrated using the sampling, analysis, and calculation methods specified in permit Condition No. 21.

{Note: In combination with the annual clinker production limitation of 1,715,500 tons per year, the above emissions standards effectively limit annual potential emissions from this unit to: 2,487.5 tons/year of CO; 1,673 tons/year of NOx (after year one); 131 tons/year of PM/PM10; 172 tons/year of SO2; and 99 tons/year of VOC. Note that first year annual NOx emissions could be as high as 2,573 tons/year.}

[Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]

14. **Test Methods:** Any required stack tests shall be performed in accordance with the following methods.

| EPA Method | Description of Method and Comments  |
|------------|---|
| 1 - 4      | Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content. Methods shall be performed as necessary to support other methods.           |
| 5          | Determination of Particulate Emissions. The minimum sample volume shall be 30 dry standard cubic feet.  |
| 6C         | Determination of SO2 Emissions (Instrumental).  |
| 7E         | Determination of NOx Emissions (Instrumental). NOx emissions testing shall be conducted with the air heater operating at the highest heat input possible during the test. |
| 9          | Visual Determination of Opacity   |
| 10         | Measurement of Carbon Monoxide Emissions (Instrumental). The method shall be based on a continuous sampling train.  |
| 23         | Measurement of Dioxin/Furan Emissions   |
| 25A        | Measurement of Gaseous Organic Concentrations (Flame Ionization – Instrumental)   |

The methods are specified in Appendix A of 40 CFR 60, adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. Tests shall be conducted in accordance with the appropriate test method and the applicable requirements specified in Appendix C of this permit, NSPS Subpart A in 40 CFR 60, and NESHAP Subparts A and LLL in 40 CFR 63. [Rules 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

15. **Testing Requirements:** Initial tests shall be conducted between 90% and 100% of permitted capacity; otherwise, this permit shall be modified to reflect the true maximum capacity as constructed. Subsequent annual tests shall be conducted between 90% and 100% of permitted capacity in accordance with the requirements of Rule 62-297.310(2), F.A.C. Tests shall be conducted for each required pollutant under the fuel scenario representing the highest potential for generating emissions. In general, this fuel scenario is firing coal as the primary fuel and firing TDF, petroleum coke, and coal ash as secondary fuels. If a secondary fuel listed above is not available at the time of testing, tests shall be based on the fuels that are

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available. If a secondary fuel is added later, additional tests shall be conducted with that fuel scenario within 60 days of first fire of the new secondary fuel. [Rule 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8]

16. **Initial Compliance Demonstration:** Initial compliance stack tests shall be conducted within 60 days after achieving a daily average clinker production rate of 187 tons per hour, but not later than 180 days after the initial startup. In accordance with the test methods specified in this permit, the kiln system exhaust stack shall be tested to demonstrate compliance with the emission standards for particulate matter, CO, SO<sub>2</sub>, NO<sub>x</sub>, dioxin/furans, and THC. The initial compliance demonstration with the THC, and dioxin/furans emissions standards shall be carried out in accordance with 63.1349(b). The permittee shall provide the Compliance Authority with any other initial emissions performance tests conducted to satisfy vendor guarantees. [Rule 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8]
17. **Subsequent Compliance Testing:** Annual compliance stack tests for particulate matter CO, NO<sub>x</sub>, and SO<sub>2</sub> shall be conducted during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). Subsequent dioxins/furans tests shall be conducted in accordance with the provisions of 40 CFR 63.1349. Data collected from the reference method during the required RATA tests for CO, NO<sub>x</sub>, and SO<sub>2</sub> may be used to satisfy the annual testing requirement provided the notification requirements and emission testing requirements for performance and compliance tests of this permit are satisfied. [Rules 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8]
18. **Continuous Compliance:** Continuous compliance with the permit standards for opacity and emissions of CO, NO<sub>x</sub>, SO<sub>2</sub>, and VOC/THC shall be demonstrated with data collected from the required continuous monitoring systems. [Rules 62-212.400(5)(c) and 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8]
19. **Supplemental Dioxin/Furan and PM/PM10 Tests:** The owner or operator shall notify the Compliance Authority prior to initiating any significant change in the feed or fuel used in the most recent compliant performance test for dioxin/furan or PM/PM10. For purposes of this condition, significant means any of the following: a physical or chemical change in the feed or fuel; the use of a raw material not previously used; a change in the LOI of the coal ash; a change between non-beneficiated coal ash and beneficiated coal ash. Based on the information provided, the Compliance Authority will promptly determine if performance testing pursuant to 40 CFR 63.1349 will be required for the new feed or fuel. A significant change shall not include switching to a feed/fuel mix for which the permittee already tested in compliance with the dioxin/furan and PM/PM10 emission limits. [62-4.070(3), F.A.C.]
20. **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 shall 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. [Rule 62-297.310(7)(b), F.A.C.]
21. **Mercury Compliance Demonstration:**
  - a. **Material Balance Demonstration:** The owner or operator shall demonstrate compliance with the mercury throughput limitation by material balance and maintaining records of the monthly and rolling 12-month mercury throughput. Samples of the raw mill feed and all fuels shall be collected each day. A single composite daily sample shall be made from all samples collected during a day. A monthly composite sample shall be made from each of the daily composite samples. Each monthly composite sample shall be analyzed to determine the mercury concentration of the materials representative for the month. The analytical methods used to determine mercury concentration shall be EPA or ASTM methods such as EPA Method 7471A (Mercury in Solid or Semisolid Waste). No other methods may be used unless prior written approval is received from the Department. For each raw material and fuel, the monthly mercury throughput rate (pounds per month) shall be the product of the mercury



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concentration from the monthly composite sample and the mass of raw material or fuel used during the month. If the mercury concentration is below detection limit or below the limits of quantification, the detection limit will be assumed for the concentration of the raw material or fuel. For each month, the mass of mercury introduced into the pyroprocessing system (pounds per month) shall be the sum of the monthly mercury throughput rate for each raw material and fuel. The consecutive 12-month mercury throughput rate shall be the sum of the individual monthly records for the current month and the preceding eleven months (pounds of mercury per consecutive 12-months). Such records, including calculations and data, shall be completed no later than 25 days following the month of the records.

- b. *Mercury Continuous Emissions Monitoring System (Hg-CEMS)*: Within 60 days following the first year of operation, the owner or operator shall install any model of Hg-CEMS that has been demonstrated to meet the requirements in Performance Specification 12A (PS-12A), "Specifications and Test Procedures for Total Vapor phase Mercury Continuous Monitoring Systems in Stationary Sources," or that has passed verification tests conducted under the auspices of the U.S. Environmental Protection Agency's (EPA) Environmental Technology Verification (ETV) Program. During the subsequent 90 days, the owner or operator shall certify the Hg-CEMS. If the vendor provides to the Department verification of certification difficulties such that the CEMS cannot be certified by the certification deadline, and every reasonable effort has been made to do so, the Department shall grant a reasonable extension of time to certify the CEMS. After certification the owner or operator will begin reporting Hg mass emissions data. The owner or operator shall adhere to the calibration drift and quarterly accuracy assessment procedures in 40 CFR Part 60, Appendix F or 40 CFR Part 75, Appendix B. The 12-month rolling mass emissions shall be estimated based on the actual data collected no later than 10 days following the end of the month. The CEMS shall only be used as the method of compliance if the owner or operator notifies the Department of the intent to use the CEMS in lieu of the procedures described in the preceding paragraph. Prior to use of the Hg-CEMS as the method to demonstrate compliance, the owner or operator shall submit written notice to the Department, and receive approval for a missing data substitution plan. For purposes of this requirement, the first year of operation ends 365 calendar days following the first day the kiln produces clinker.

If, after 365 days of operation of the Hg-CEMS, the CEMS is not to be used as the method of compliance and the permittee can document that data from the CEMS is inaccurate or excessively invalid, and/or that the CEMS has proven to be unreliable and unreasonably burdensome, the owner or operator may request the removal of the Hg CEMS requirements.

[Rules 62-4.070(3) and 62-212.400(2)(g), F.A.C.]

#### EXCESS EMISSIONS

{Note: The following conditions apply only to the SIP-based emissions standards specified in Condition No. 13 of this section. Rule 62-210-700, F.A.C. (Excess Emissions) cannot vary or supersede any federal provision of the NSPS or the NESHAP programs.}

22. Operating Procedures: The Best Available Control Technology (BACT) determinations established by this permit rely on "good operating practices" to reduce emissions. Therefore, all operators and supervisors shall be properly trained to operate and maintain the kiln and calciner, and pollution control systems in accordance with the guidelines and procedures established by each manufacturer. The training shall include good operating practices as well as methods for minimizing excess emissions.

[Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]

23. Definitions:

- a. *Startup* is defined as the commencement of operation of any emissions unit which has shut down or

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ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.

- b. *Shutdown* means the cessation of the operation of an emissions unit for any purpose.
- c. *Malfunction* means any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.

[Rule 62-210.200(159,230, and 245), F.A.C.]

- 24. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data. [Rule 62-210.700(4), F.A.C.]
- 25. Allowable Data Exclusions: Continuous monitoring data collected during periods of startup, shutdown, and malfunction may be excluded from the compliance demonstrations only in accordance with the following requirements, provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized. As provided by the authority in Rule 62-210.700(5), F.A.C., the following conditions replace the provisions in Rule 62-210.700(1), F.A.C.
  - a. *CO Data*: Each 30-day rolling average shall include all periods of operation (including startup, shutdown, and malfunction), but may exclude limited periods due to equipment malfunctions. No more than 30 hours in any calendar month shall be excluded from the compliance determinations due to equipment malfunctions. Malfunctions do not include process upsets that occur as a normal part of cement production.
  - b. *NOx Data*: Each 30-day rolling average shall include all periods of operation (including startup, shutdown, and malfunction), but may exclude limited periods due to malfunctions of the SNCR system. "Malfunctions of the SNCR system" are defined as any unavoidable mechanical and/or electrical failure that prevents introduction of ammonia-based solutions into the kiln system. No more than 30 hours in any calendar month shall be excluded from the compliance determinations due to malfunctions of the SNCR system.
  - c. *SO<sub>2</sub> Data*: Each 24-hr rolling average shall include all periods of operation (including startup, shutdown, and malfunction), but may exclude limited periods due to malfunctions of the hydrated lime system, which are defined as any unavoidable mechanical and/or electrical failure that prevents introduction of lime into the kiln system. No more than 30 hours in any calendar month shall be excluded from the compliance determinations due to malfunctions of the hydrated lime system.
  - d. *Other Data*: All opacity and VOC data shall be included in the compliance determination. If the mercury CEMS is used as the method for demonstrating compliance, all valid data shall be included in the compliance determination.

The permittee shall notify the Compliance Authority within one working day of discovering any emissions in excess of a CEMS standard subject to the specified averaging period. Within one working day of occurrence, the owner or operator shall notify the Compliance Authority of any malfunction resulting in the exclusion of CEMS data. All such reasonably preventable emissions shall be included in any CEMS compliance determinations. All valid emissions data (including data collected during startup, shutdown and malfunction) shall be used to report emissions for the Annual Operating Report

[Rules 62-210.200, 62-212.400(BACT) and 62-210.700, F.A.C.]

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#### CONTINUOUS MONITORING REQUIREMENTS

26. **CEM Systems:** The permittee shall install, calibrate, operate and maintain continuous emissions monitoring systems (CEMS) to measure and record concentrations of CO, Hg, NO<sub>x</sub>, SO<sub>2</sub>, and VOC/THC in the kiln system exhaust stack in a manner sufficient to demonstrate continuous compliance with the emissions standards specified in this section. All continuous monitoring systems other than the Hg CEMS shall be installed and functioning within the required performance specifications by the time of the initial performance tests. The Hg CEMS shall be installed and functioning within the required performance specifications following the first year of operation as specified in condition No. 21.
- CO Monitor.** The CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4 or 4A. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F. The required RATA tests shall be performed using EPA Method 10 in Appendix A of 40 CFR 60 and shall be based on a continuous sampling train. The CO monitor span values shall be set appropriately, considering the expected range of emissions and corresponding emission standards.
  - NO<sub>x</sub> Monitor.** The NO<sub>x</sub> monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 2. Quality assurance procedures shall conform to the requirements of in 40 CFR 60, Appendix F. The required RATA tests shall be performed using EPA Method 7E in Appendix A of 40 CFR 60. The NO<sub>x</sub> monitor span values shall be set appropriately, considering the expected range of emissions and corresponding emission standards.
  - SO<sub>2</sub> Monitor.** The SO<sub>2</sub> monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 2. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F. The required RATA tests shall be performed using EPA Method 6C in Appendix A of 40 CFR 60. The SO<sub>2</sub> monitor span values shall be set appropriately, considering the expected range of emissions and corresponding emission standards.
  - THC Monitor.** A monitor shall be installed to determine THC emissions from the stack and shall meet the requirements of NESHAP Subpart LLL in 40 CFR 63 (40 CFR 63.1349 and 63.1350). The THC monitor shall include provisions to determine the moisture content of the exhaust gas and an algorithm to enable correction of the monitoring results to a dry basis (0% moisture).
  - Diluent Monitor.** An oxygen monitor shall be installed at the THC monitor location to correct measured THC emissions to the required oxygen concentration.
  - Mercury Monitor.** A mercury monitor (Hg-CEMS) shall be installed and operated as described in Condition 21 above.
- CEMS, other than the Hg CEMS, are also subject to the General Provisions specified in Subpart A of 40 CFR 60 (CO, NO<sub>x</sub>, and SO<sub>2</sub>) and Subpart A of 40 CFR 63 (THC/VOC).  
[Rules 62-4.070(3), 62-210.800, 62-212.400(BACT) and 62-297.520, F.A.C.]
27. **COMS:** A continuous opacity monitoring system (COMS) shall be installed, calibrated, operated, and maintained in the kiln system exhaust stack, after the baghouse, in a manner sufficient to demonstrate continuous compliance with the opacity standards specified in this section. Opacity shall be based on a 6-minute block average computed from at least one observation (measurement) every 15 seconds. For the COMS, the 6-minute block averages shall begin at the top of each hour. The COMS shall meet the applicable requirements of 40 CFR 63.1350. [NESHAP Subpart LLL in 40 CFR 63]
28. **CEMS/COMS Certification and Initial Startup:** Each CEMS/COMS required by this permit shall be installed prior to startup. Within 60 calendar days of achieving an average daily clinker production rate of 187 tons per hour, but no later than 180 calendar days after initial startup, the owner or operator shall certify each

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CEMS/COMS. Upon certification of each CEMS/COMS, the owner or operator shall demonstrate compliance with all applicable standards as specified in this permit. The Hg CEMS shall be installed and functioning within the required performance specifications following the first year of operation as specified in condition No. 21. [Rules 62-4.070(3), 62-210.800, 62-212.400(BACT) and 62-297.520, F.A.C.; 40 CFR 60.7(a), 60.13(b) and Appendix B; and 40 CFR 63.7(a)(2)]

29. **CEMS Data Requirements:** The CEMS shall be installed, calibrated, maintained, and operated in the in-line kiln/raw mill stack to measure and record the emissions of CO, NO<sub>x</sub>, SO<sub>2</sub>, and THC/VOC in a manner sufficient to demonstrate compliance with the emission limits of this permit. The CEMS shall express the results in units of pounds per ton of clinker produced, and pounds per hour. Emissions of VOC shall be reported in units of the standards (lb/hr, lb/ton of clinker) and ppmvd as propane corrected to 7% oxygen.
- a. *Valid Hourly Averages:* Each CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over the hour at a minimum of one measurement per minute. All valid measurements collected during an hour shall be used to calculate a 1-hour block average that begins at the top of each hour. Each 1-hour block average shall be computed using at least one data point in each fifteen-minute quadrant of an hour, where the unit combusted fuel (or produced clinker) during that quadrant of an hour. Notwithstanding this requirement, a 1-hour average shall be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour). If less than two such data points are available, there is insufficient data and the 1-hour block average is not valid.
    - Hours during which there is no kiln feed and no fuel fired are not valid hours.
    - Hours during which the plant is firing fuel but producing no clinker are valid, but these hours are excluded from the production-normalized emission rate computation (pounds per ton of clinker). These hours are included in any pollutant mass emission rate computation (pounds per hour).
  - b. *24-hour Rolling Averages:* Compliance with the emission limit for SO<sub>2</sub> shall be based on a 24-hour rolling average that shall be recomputed after every valid hour as the arithmetic average of that hourly average and the preceding 23 valid hourly averages.
  - c. *30-day Rolling Averages:* Compliance with the emission limits for CO and NO<sub>x</sub> shall be based on a 30-day rolling average. Each 30-day rolling average shall be the arithmetic average of all valid hourly averages collected during the last 30 operating days. A new 30-day rolling average shall be recomputed after every day of operation for the new day and the preceding 29 operating days. For purposes of computing these emission limits, an operating day is any day that the kiln produces clinker or fires fuel.
  - d. *30-day Block Average:* Compliance with the emission limit for VOC shall be based on a 30-day block average. Each 30-day block average shall be the arithmetic average of all valid hourly averages occurring within each 30 operating-day block and shall be consistent with the averaging period specified in 40 CFR 63.1350(h) for THC emissions.
  - e. *Data Exclusion:* Except for monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall monitor and record emissions during all operations including episodes of startups, shutdowns, and malfunctions. Limited amounts of CEMS emissions data recorded during some of these episodes may be excluded from the corresponding compliance demonstration subject to the provisions of Condition No. 25 in this section. The permittee shall minimize the duration of data excluded for such episodes to the extent practicable.
  - f. *Availability.* Monitor availability for each CEMS used to demonstrate compliance shall be 95% or greater in any calendar quarter. Monitor availability shall be reported in the quarterly excess emissions report. In the event 95% availability is not achieved, the permittee shall provide the Department with a

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report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit, except as otherwise authorized by the Compliance Authority.

g. *Public Access*: Emission data will be available in real time on the company website.

30. **Continuous Flow Monitor**: A continuous flow monitor shall be installed to determine the stack exhaust flow rate to be used in determining mass emission rates. The flow monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 6.
31. **Baghouse Temperature Monitor**: A continuous temperature monitor shall be installed, calibrated, operated, and maintained at the inlet to the baghouse for the kiln system exhaust in accordance with the requirements of 40 CFR 63.1350(f). [NESHAP Subpart LLL in 40 CFR 63]
32. **Ammonia Injection**: A monitoring system to continuously monitor and record the ammonia and/or urea injection rate of the SNCR system (1-hour block averages) shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations.  
[Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]

#### REPORTING AND RECORD KEEPING REQUIREMENTS

33. **Operational Records**: To demonstrate compliance with the limitations specified in this section, the owner or operator shall maintain the following records on site.
  - a. For each 1-hour block of operation, continuously monitor and record the dry preheater feed rate, clinker production rate, fuel firing rate, heat input rate (the representative heating value of each fuel and the hourly fuel firing rate), and estimates of  $\text{NH}_3/\text{NO}_x$  molar ratio or ammonia injection rate. Records shall also document the dry preheater feed rate and clinker production rates for each 24-hour rolling period and consecutive 12 months.
  - b. For each fuel delivery, maintain records of the quantity of fuel delivered and a representative analysis of the fuel. Records shall include the sulfur content, higher and lower heating value, proximate analysis, and ultimate analyses.
  - c. Maintain records demonstrating compliance with the mercury throughput limitation as required in Condition No. 21 of this permit.

All records shall be made available to the Department and Compliance Authority upon request.  
[Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]

34. **Stack Test Reports**: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Compliance Authority on the results of each such test. The required test report shall be filed with the Compliance Authority as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Compliance Authority 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 specified in Rule 62-297.310(8), F.A.C. [Rule 62-297.310(8), F.A.C.]
35. **Malfunction Notifications**: If temporarily unable to comply with any condition of the permit due to breakdown of equipment (malfunction) or destruction by hazard of fire, wind or by other cause, the permittee shall immediately (within one working day) notify the Compliance Authority. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with

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#### D. Pyroprocessing System

Department rules. If requested by the Compliance Authority, the owner or operator shall submit a quarterly written report describing the malfunction. [Rules 62-210.700(6) and 62-4.130, F.A.C.]

36. SIP Quarterly Report: Within 30 days following the end of each calendar quarter, the permittee shall submit a report to the Compliance Authority summarizing: equipment malfunctions resulting in excluded CEMS data and/or excess emissions; mercury throughput rates; and the monitor availability of each CEMS. The report shall contain the information and follow the general format specified in Appendix F of this permit. [Rules 62-4.070(3), 62-4.130, and 62-212.400(BACT), F.A.C.]
37. Used Oil Records: For each shipment of used oil received, the owner or operator shall maintain records from the vendor certifying that the used oil meets the above requirements for "on-specification" used oil fuel. Records shall include the following parameters: arsenic, cadmium, chromium, lead, total halogens, flash point, PCBs, sulfur content, ash, and heating value. Otherwise, the owner or operator shall sample and analyze each shipment of used oil received for the above parameters. If vendor certifications are relied upon, the owner or operator shall analyze at least one sample obtained each calendar year for the above parameters. If analytical results show that the used oil does not meet the above requirements, the owner or operator shall immediately: cease burning of the used oil, and notify the Compliance Authority of the analytical results. The analysis shall be performed via EPA-approved or ASTM methods. The permittee shall obtain, make, and keep the following records: Gallons of on-specification used oil received and burned each month;
- Gallons of on-specification used oil received and burned each month;;
  - Name and address of all vendors delivering used oil to the facility
  - Copies of the vendor certifications, if obtained, and any supporting information; and
  - Analytical results.

The records shall be retained in a form suitable for inspection at the facility by the Department, and shall be retained permanently. [40 CFR 279.61; 40 CFR 761.20(e), and Rule 62-4.070(3), F.A.C.]

38. O&M Plan for Baghouse: The permittee shall prepare an operation and maintenance (O&M) plan to address the schedule for inspection and preventive maintenance of the baghouse control system. The O&M plan shall be submitted to the Compliance Authority prior to expiration of this permit. The permittee shall maintain records of the condition of the control equipment for each inspection and any maintenance activities performed. [Rule 62-4.070(3), F.A.C., and 40 CFR 63.1350, Subpart LLL]

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### E. Clinker Storage and Conveying

The specific conditions of this subsection apply to the following emissions unit after construction is complete.

| ID No. | Emissions Unit Description   |
|--------|--|
| 005    | (CH-5) - Clinker Storage and Conveying. Includes clinker transport from kiln; clinker, limestone, and gypsum silos; and clinker, limestone and gypsum conveying to finish mills. |

Clinker storage and conveying includes the following emission points controlled by fabric filter baghouses.

| Point ID | Emissions Point Description                 |
|----------|---|
| NDC-10   | Clinker Transport From Kiln                 |
| NDC-11   | Clinker Silo #1                             |
| NDC-12   | Clinker Silo #2                             |
| NDC-13   | Off-Spec Clinker Silo                       |
| NDC-14   | Finish Mill #1 Clinker Silo Outlet Conveyor |
| NDC-15   | Finish Mill #2 Clinker Silo Outlet Conveyor |
| NDC-16   | Gypsum and Limestone Silos                  |
| NDC-17   | Conveying to Finish Mills (2 feed belts)    |

#### APPLICABLE STANDARDS AND REGULATIONS

- BACT Determinations:** A determination of the Best Available Control Technology (BACT) was made for, particulate matter (PM/PM<sub>10</sub>). To satisfy the BACT requirements for this unit the visible emissions limits act as surrogate standards for PM.
- NESHAP Requirements:** This unit is subject to 40 CFR 63, Subpart A (Identification of General Provisions) and 40 CFR 63, Subpart LLL (National Emissions Standard for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry). The Department determines that the BACT emissions performance requirements are as stringent as or more stringent than the limits imposed by the applicable NESHAP provisions. Some separate reporting and monitoring may be required by the individual subpart.

#### EQUIPMENT AND CONTROL TECHNOLOGY

- Equipment Description:** The permittee is authorized to construct, operate, and maintain equipment needed for the conveying and storage of clinker, and the limestone and gypsum storage and conveying to the two finish mills. Equipment will include two clinker silos, one off-spec clinker silo, gypsum and limestone silos, and associated conveyors, and control equipment.
- Baghouse Controls:** Each emissions point identified for clinker storage and conveying shall be controlled by a baghouse system. Each required baghouse shall be designed, operated, and maintained to achieve a PM design specification of 0.01 gr/dscf and a PM<sub>10</sub> design specification of 0.0085 gr/dscf. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]

#### PERFORMANCE REQUIREMENTS

- Hours of Operation:** This emissions unit is allowed to operate 8,760 hours per year. [Applicant Request, Rule 62-210.200(PTE), F.A.C.]

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### E. Clinker Storage and Conveying

#### EMISSIONS AND TESTING REQUIREMENTS

6. **Emissions Limits:** The following standards apply to each emissions point of this unit including all clinker storage and conveying system transfer points:

- a. Emissions are limited to 5% opacity from each of the above listed emissions points controlled by a baghouse.
- b. Emissions are limited to 10% opacity from any emissions point not controlled by a baghouse.

[Rule 62-212.400(BACT), F.A.C.]

{Note: The baghouses are designed to control PM emissions to 0.01 grains/dry standard cubic foot (gr/dscf) and PM<sub>10</sub> emissions to 0.0085 gr/dscf. The 5% opacity limitation is consistent with this design and provides reasonable assurance that annual emissions of PM/PM<sub>10</sub> from all emission points listed above will be no more than 24.97/21.23 TPY. Exceedance of the 5% opacity limit shall be deemed an exceedance of this permit condition and not necessarily an exceedance of the opacity limitations given in 40 CFR 63, Subpart LLL.}

[Rules 62-4.070(3), 62-212.400, F.A.C. and 40 CFR 63.1348]

7. **Compliance Demonstrations:** Each emission point shall be tested to demonstrate initial compliance with the emission standards for visible emissions in accordance with EPA Method 9. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup. Thereafter, compliance with the visible emission limits shall be demonstrated during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>).

[Rules 62-4.070(3), 62-297.310(7)(a), F.A.C. and 40 CFR 63.1349(b)(2)]

8. **Periodic Monitoring Requirements:** Each affected source subject to an opacity standard shall be periodically monitored using the procedures described in 40 CFR 63.1350(a) (4) (i) through (vii) to ensure compliance with the emissions limits of condition No. 6. [Rule 62-4.070(3), and 40 CFR, 63.1350, Subpart LLL]

9. **Test Methods:** Any required tests shall be performed in accordance with the following reference methods and the applicable requirements of Appendix C of this permit, and the applicable NESHAP provisions.

| Method | Description of Method and Comments                                       |
|--------|--|
| 9      | Visual Determination of the Opacity of Emissions from Stationary Sources |
| 22     | Visual Determination of Fugitive Emissions From Material Sources         |

#### REPORTING AND RECORD KEEPING

10. **Baghouse O&M Plan:** For each baghouse the permittee shall prepare an operation and maintenance (O&M) plan to address proper operation, parametric monitoring, and a schedule for conducting periodic inspections and preventive maintenance. Baghouse inspections and maintenance activities shall be recorded in a written log. The O&M plan shall be submitted to the Compliance Authority prior to the initial compliance tests for this unit. [Rule 62-4.070(3), and 40 CFR 63.1350, Subpart LLL]

11. **Test Reports:** For each test conducted, the permittee shall file a test report including the information specified in Rule 62-297.310(8), F.A.C. with the compliance authority no later than 45 days after the last run of each test is completed. [Rules 62-297.310(8), F.A.C.]



## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### F. Finish Mills Cement Processing

The specific conditions of this subsection apply to the following emissions unit after construction is complete.

| ID No. | Emissions Unit Description   |
|--------|--|
| 006    | (CH-6) - Finish Mills Cement Processing. Includes two finish mills, cement silos, packaging plant and truck loadout. |

The Finish Mills Cement Processing includes the following emission points controlled by fabric filter baghouses.

| Point ID | Emissions Point Description       |
|----------|-----------------------------------|
| NDC-18   | Finish Mill #1 Clinker Conveying  |
| DC-02    | Finish Mill #1 Separator Baghouse |
| DC-03    | Finish Mill #1 Sweep Baghouse     |
| NDC-21   | Fringe Cement Bin                 |
| NDC-19   | Finish Mill #1 Baghouse No. 3     |
| DC-04    | Finish Mill #2 Separator Baghouse |
| DC-05    | Finish Mill #2 Sweep Baghouse     |
| NDC-20   | Finish Mill #2 Baghouse No. 3     |
| NDC-22   | Cement Silos                      |
| NDC-23   | Cement Silos                      |
| NDC-24   | Cement Silos                      |
| NDC-25   | Truck Loadout #1                  |
| NDC-26   | Truck Loadout #2                  |
| NDC-27   | Truck Loadout #3                  |
| NDC-28   | Packaging Plant                   |

#### APPLICABLE STANDARDS AND REGULATIONS

- BACT Determinations:** A determination of the Best Available Control Technology (BACT) was made for particulate matter (PM/PM<sub>10</sub>). To satisfy some of the BACT requirements for this unit the visible emissions limits act as surrogate standards for PM.
- NESHAP Requirements:** This unit is subject to 40 CFR 63, Subpart A (Identification of General Provisions) and 40 CFR 63, Subpart LLL (National Emissions Standard for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry). The Department determines that the BACT emissions performance requirements are as stringent as or more stringent than the limits imposed by the applicable NESHAP provisions. Some separate reporting and monitoring may be required by the individual subpart.

#### EQUIPMENT AND CONTROL TECHNOLOGY

- Equipment Description:** The permittee is authorized to construct, operate, and maintain equipment needed for cement finishing, storage, packaging, and loadout. Equipment will include two finish mills, six cement

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### F. Finish Mills Cement Processing

silos with two interstices, one fringe cement bin, three truck loadouts, one packaging plant, and associated conveyors, bucket elevators, belts, and control equipment.

4. **Baghouse Controls:** Each emissions point identified for finish mills cement processing shall be controlled by a baghouse system. Each required baghouse shall be designed, operated, and maintained to achieve a PM design specification of 0.01 gr/dscf and a PM<sub>10</sub> design specification of 0.0085 gr/dscf. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]

#### PERFORMANCE REQUIREMENTS

5. **Hours of Operation:** This emissions unit is allowed to operate 8,760 hours per year. [Applicant Request, Rule 62-210.200(PTE), F.A.C.]
6. **Process Rate Specification:** Each finish mill may process up to 170 tons per hour (TPH) of clinker, gypsum or limestone to produce an equal amount of cement. [Applicant Request]  
  
{Note: The finish mills are capable of processing more clinker than can be produced by the on-site pyroprocessing system. Any projects to utilize the additional capacity would constitute a modification per Section 2, Condition 7.}

#### EMISSIONS AND TESTING REQUIREMENTS

7. **Particulate Matter Standards:** Particulate matter emissions from the finish mill air separators (Points DC-02, and DC-04) shall not exceed 0.0085 grains per dscf of exhaust as determined by EPA method 5. All PM emitted from the baghouse exhaust is assumed to be PM<sub>10</sub>. The BACT requirements do not waive or vary any applicable NESHAP monitoring or record keeping requirements. [Rules 62-212.400 (BACT), F.A.C.]
8. **Visible Emissions Standards:** Visible emissions shall not exceed the following limits as determined by EPA Method 9:
  - a. Visible emissions are limited to 5% opacity from each of the above listed emissions points controlled by a baghouse.
  - b. Visible emissions are limited to 10% opacity from any emissions point not controlled by a baghouse.  
{Note: The baghouses are designed to control PM emissions to 0.01 grains/dry standard cubic foot (gr/dscf) and PM<sub>10</sub> emissions to 0.0085 gr/dscf. The 5% opacity limitation is consistent with this design and provides reasonable assurance that annual emissions of PM/PM<sub>10</sub> from the above emissions points (excluding the air separators) will be less than 42.03/35.74 TPY. Exceedance of the 5% opacity limit shall be deemed an exceedance of this permit condition and not necessarily an exceedance of the opacity limitations given in 40 CFR 63, Subpart LLL.}  
  
[Rules 62-212.400 (BACT), F.A.C.]
9. **Testing Requirements:** Emission points DC-02 and DC-04 shall be stack tested to demonstrate initial compliance with the applicable emission standards for PM/PM<sub>10</sub> and visible emissions. All other emission points shall be tested for visible emissions only. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup. Thereafter, compliance with the particulate limits (PM/PM<sub>10</sub>) shall be demonstrated within the 12 month period prior to each renewal of the operation permit and compliance with the visible emissions limits for each unenclosed transfer point shall be demonstrated during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). [Rule 62-297.310(7)(a), F.A.C.]

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

#### F. Finish Mills Cement Processing

10. **Periodic Monitoring Requirements:** Each affected source subject to an opacity standard shall be periodically monitored using the procedures described in 40 CFR 63.1350(a) (4) (i) through (vii) to ensure compliance with the emissions limits of condition No. 6. [Rule 62-4.070(3), and 40 CFR, 63.1350, Subpart LLL]
11. **Test Methods:** Any required tests shall be performed in accordance with the following reference methods and the applicable requirements of Appendix C of this permit, and the applicable NSPS provisions.

| Method | Description of Method and Comments  |
|--------|---|
| 1 - 4  | Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content. Methods shall be performed as necessary to support other methods. |
| 5      | Determination Particulate Matter from Stationary Sources  |
| 9      | Visual Determination of the Opacity of Emissions from Stationary Sources  |
| 22     | Visual Determination of Fugitive Emissions From Material Sources  |

#### REPORTING AND RECORD KEEPING

12. **Baghouse O&M Plan:** For each baghouse the permittee shall prepare an operation and maintenance (O&M) plan to address proper operation, parametric monitoring, and a schedule for conducting periodic inspections and preventive maintenance. Baghouse inspections and maintenance activities shall be recorded in a written log. The O&M plan shall be submitted to the Compliance Authority prior to the initial compliance tests for this unit. [Rule 62-4.070(3)]
13. **Test Reports:** For each test conducted, the permittee shall file a test report including the information specified in Rule 62-297.310(8), F.A.C. with the compliance authority no later than 45 days after the last run of each test is completed. [Rules 62-297.310(8), F.A.C.]

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### G. Coal and Petroleum Coke Grinding System

The specific conditions of this subsection apply to the following emissions unit.

| ID No. | Emissions Unit Description  |
|--------|---|
| 007    | (CH-7) - Coal and Petroleum Coke Grinding System. Includes coal mill and coal bins. |

The coal and petroleum coke grinding system includes the following emission points controlled by fabric filter baghouses.

| Point ID | Emissions Point Description |
|----------|-----------------------------|
| DC-06    | Coal Mill #1 Baghouse       |
| DC-07    | Coal Mill #2 Baghouse       |
| NDC-29   | Pulverized Coal Bin         |
| NDC-30   | Pulverized Coal Bin         |

#### APPLICABLE STANDARDS AND REGULATIONS

1. **BACT Determinations:** A determination of the Best Available Control Technology (BACT) was made for particulate matter (PM/PM<sub>10</sub>). To satisfy some of the BACT requirements for this unit the visible emissions limits act as surrogate standards for PM.
2. **NSPS Requirements:** This unit is subject to 40 CFR 60, Subpart A (Identification of General Provisions) and 40 CFR 60, Subpart Y (Standards of Performance for Coal Preparation Plants). The Department determines that the BACT emissions performance requirements are as stringent as or more stringent than the limits imposed by the applicable NSPS provisions. Some separate reporting and monitoring may be required by the individual subpart.

#### EQUIPMENT AND CONTROL TECHNOLOGY

3. **Equipment Description:** The permittee is authorized to construct, operate, and maintain equipment needed for coal and petroleum coke grinding and storage. Equipment will include a coal/petcoke grinding mill (nominal throughput 211,160 TPY and 28.4 TPH), storage bins, and associated conveyor systems. Clinker cooler gas will be used for drying.
4. **Baghouse Controls:** Each emissions point identified for the coal and petroleum coke grinding system shall be controlled by a baghouse system. Each required baghouse shall be designed, operated, and maintained to achieve a PM design specification of 0.01 gr/dscf and a PM<sub>10</sub> design specification of 0.0085 gr/dscf. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]

#### PERFORMANCE REQUIREMENTS

5. **Hours of Operation:** The hours of operation for this emissions unit are not limited (8760 hours per year). [Rule 62-210.200(PTE), F.A.C.]

#### EMISSIONS AND TESTING REQUIREMENTS

6. **Particulate Matter Standards:** Particulate matter emissions from the coal mill (Point ID DC-06 and DC-07) shall not exceed 0.0085 grains per dscf of exhaust as determined by EPA method 5. All PM emitted from the baghouse exhaust is assumed to be PM<sub>10</sub>. The BACT requirements do not waive or vary any applicable NESHAP monitoring or record keeping requirements. [Rules 62-212.400 (BACT), F.A.C. and 40 CFR 60.252]

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### G. Coal and Petroleum Coke Grinding System

7. **Visible Emissions Standards:** Visible emissions from each baghouse shall not exceed 5% opacity as determined by EPA Method 9.

[Rules 62-212.400 (BACT), F.A.C. and CFR 60.252]

8. **Testing Requirements:** Emission points DC-06 and DC-07 shall be stack tested to demonstrate initial compliance with the applicable emission standards for PM/PM<sub>10</sub> and visible emissions. All other emission points shall be tested for visible emissions only. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup. Thereafter, compliance with the particulate limits (PM/PM<sub>10</sub>) shall be demonstrated within the 12 month period prior to each renewal of the operation permit and compliance with the visible emission limits shall be demonstrated during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). [Rule 62-297.310(7)(a), F.A.C.]

9. **Test Methods:** Any required tests shall be performed in accordance with the following reference methods and the applicable requirements of Appendix C of this permit, and the applicable NSPS provisions.

| Method | Description of Method and Comments  |
|--------|---|
| 1 - 4  | Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content. Methods shall be performed as necessary to support other methods. |
| 5      | Determination Particulate Matter from Stationary Sources  |
| 9      | Visual Determination of the Opacity of Emissions from Stationary Sources  |

#### CONTINUOUS MONITORING REQUIREMENTS

10. **Thermal Dryer Exit Temperature:** A monitoring device for the continuous measurement of the temperature of the gas stream at the exit of the thermal dryer shall be installed, calibrated, maintained, and continuously operated to measure the temperature of the gas stream in accordance with the requirements of 40 CFR, 60.253. [40 CFR 60.253]

#### REPORTING AND RECORD KEEPING

11. **Baghouse O&M Plan:** For each baghouse the permittee shall prepare an operation and maintenance (O&M) plan to address proper operation, parametric monitoring, and a schedule for conducting periodic inspections and preventive maintenance. Baghouse inspections and maintenance activities shall be recorded in a written log. The O&M plan shall be submitted to the Compliance Authority prior to the initial compliance tests for this unit. [Rule 62-4.070(3), and 40 CFR 63.1350, Subpart LLL]
12. **Test Reports:** For each test conducted, the permittee shall file a test report including the information specified in Rule 62-297.310(8), F.A.C. with the compliance authority no later than 45 days after the last run of each test is completed. [Rules 62-297.310(8), F.A.C.]

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### H. Coal and Petroleum Coke Conveying

The specific conditions of this subsection apply to the following emissions unit.

| ID No. | Emissions Unit Description  |
|--------|---|
| 008    | (CH-8) – Coal and Petroleum Coke Conveying. Includes coal/petroleum coke handling and conveying from unloading to storage bins. |

The coal and petroleum coke conveying system contains the following emission points.

| Point ID | Emissions Point Description   |
|----------|---|
| CH-8-1   | Coal/Petroleum Coke Pile Handling – unloading, FEL reclaim, FEL transfer to hopper  |
| CH-8-2   | Coal/Petroleum Coke Conveying – belt transfer to elevator, transfer to scrap metal box, conveyor transfer to piles, truck dump to hopper, hopper transfer to elevator |

#### APPLICABLE STANDARDS AND REGULATIONS

1. **BACT Determinations:** A determination of the Best Available Control Technology (BACT) was made for particulate matter (PM/PM<sub>10</sub>).
2. **NSPS Requirements:** This unit is subject to 40 CFR 60, Subpart A (Identification of General Provisions) and 40 CFR 60, Subpart Y (Standards of Performance for Coal Preparation Plants). The Department determines that the BACT emissions performance requirements are as stringent as or more stringent than the limits imposed by the applicable NSPS provisions. Some separate reporting and monitoring may be required by the individual subpart.

#### EQUIPMENT AND CONTROL TECHNOLOGY

3. **Equipment Description:** The permittee is authorized to construct, operate, and maintain equipment needed for the conveyance and handling of the coal and petroleum coke. Equipment will include conveyors, belts, loaders, and hoppers. [Applicant Request]

#### PERFORMANCE REQUIREMENTS

4. **Hours of Operation:** This emissions unit system is allowed to operate 8,760 hours per year. [Applicant Request, Rule62-210.200(PTE), F.A.C.]

#### EMISSIONS AND TESTING REQUIREMENTS

5. **Visible Emissions Standards:** Visible emissions from all coal/petcoke processing and conveying equipment, coal/petcoke storage system, or coal/petcoke transfer and loading system processing coal/petcoke, and not controlled by a baghouse, shall not exceed 5 % opacity. [Rules 62-212.400 (BACT), F.A.C. and CFR 60.252]
6. **Testing Requirements:** Each emission point shall be tested to demonstrate initial compliance with the visible emissions standards. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup. Thereafter, compliance with the visible emission limits shall be demonstrated during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). [Rule 62-297.310(7)(a), F.A.C.]
7. **Visible Emissions Tests:** Compliance with the visible emission limits shall be determined by conducting EPA Method 9 tests. Initial tests shall be conducted 60 days after achieving the maximum production rate at which the unit will be operated, but no later than 180 days after initial startup. Thereafter, the permittee shall demonstrate compliance during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). Tests shall be conducted in accordance with the applicable requirements in Appendix C of this permit as well as the applicable NSPS provisions.

### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

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#### H. Coal and Petroleum Coke Conveying

8. Test Reports: For each test conducted, the permittee shall file a test report including the information specified in Rule 62-297.310(8), F.A.C. with the compliance authority no later than 45 days after the last run of each test is completed. [Rules 62-297.310(8), F.A.C.]

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### I. Fugitive Dust From Storage Piles, Paved Roads, and Unpaved Roads

The following specific conditions apply to the following emissions unit after construction.

| ID No. | Emissions Unit Description   |
|--------|--|
| 010    | (CH-10, CH-11) – Fugitive Dust From Storage Piles, Paved Roads, and Unpaved Roads. |

#### PERFORMANCE REQUIREMENTS

##### 1. Unconfined Emissions of Particulate Matter

- a. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity without taking reasonable precautions to prevent such emissions. Such activities include, but are not limited to: vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling.
- b. Reasonable precautions shall include the following:
  - (1) Landscaping and planting of vegetation.
  - (2) Application of water to control fugitive dust from activities such as demolition of buildings, grading roads, construction, and land clearing.
  - (3) Water supply lines, hoses and sprinklers shall be located near all stockpiles of raw materials, coal, and petroleum coke.
  - (4) All plant operators shall be trained in basic environmental compliance and shall perform visual inspections of raw materials, coal and petroleum coke periodically and before handling. If the visual inspections indicate a lack of surface moisture, such materials shall be wetted with sprinklers. Wetting shall continue until the potential for unconfined particulate matter emissions are minimized.
  - (5) Water spray shall be used to wet the materials and fuel if inherent moisture and moisture from wetting the storage piles are not sufficient to prevent unconfined particulate matter emissions.
  - (6) As necessary, applications of asphalt, water, or dust suppressants to unpaved roads, yards, open stockpiles and similar activities.
  - (7) Paving of access roadways, parking areas, manufacture area, and fuel storage yard.
  - (8) Removal of dust from buildings, roads, and other paved areas under the control of the owner or operator of the facility to prevent particulate matter from becoming airborne.
  - (9) A vacuum sweeper shall be used to remove dust from paved roads, parking, and other work areas.
  - (10) Enclosure or covering of conveyor systems where practicably feasible.
  - (11) All materials at the plant shall be stored under roof. Materials, other than quarried materials, shall be stored on compacted clay or concrete, or in enclosed vessels.
  - (12) Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
  - (13) Confining abrasive blasting where possible.
- c. In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

[Rules 62-212.400(BACT) and 62-296.320(4)(c), F.A.C.]



**SECTION IV. APPENDICES**  
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**SECTION IV. APPENDIX BD**  
**FINAL BACT DETERMINATION AND EMISSION STANDARDS**

**PROJECT DESCRIPTION**

The proposed facility will be a dry process greenfield portland cement plant incorporating a dry process kiln with a preheater and calciner (PH/C). The nominal capacity is 1,715,500 tons per year of clinker. Major equipment associated with the main components of the plant will include the following:

- A raw materials storage building (MSB) and a limestone storage building;
- A primary crusher at the quarry and belt conveyors to MSB;
- Raw material piles stored inside of the storage buildings. The piles will include limestone, alumina sources (e.g. bauxite and coal ash), iron sources (e.g. mill scale, slag, and iron ore), silica sources (e.g. sand, and clay), and additives (e.g. feldspar, and gypsum);
- Materials handling equipment including reclaimers, stackers, belt conveyors, covered conveyors from the MSB and limestone storage building to the raw mill, control system/analyzer, etc.;
- An in-line raw mill that simultaneously dries raw materials using the exhaust gas from the kiln, PH/C, and clinker cooler;
- A preheater with staged combustion calciner and selective non-catalytic reduction (SNCR) system;
- An air heater for use when additional drying capacity is required;
- A nominal 12,000 ton per day blending silo;
- An indirect-firing system with a Low NO<sub>x</sub> main kiln burner capable of burning coal, petroleum coke, fuel oil, and natural gas;
- A whole tire feeder and/or tire gasification system.
- A clinker cooler with cooling air fans, and hot air ducting to the kiln, PH/C, and raw mill;
- Clinker storage and grinding including two finish mills with air separators, clinker silos with metering devices, limestone and gypsum bins and associated conveyors;
- Cement transfer and storage silos, truck loadouts and packhouse; and
- A nominal 28.4 TPH coal and/or petroleum coke grinding system with associated mill, storage facility, associated conveyors, and equipped with a fabric filter baghouse.

The permit authorizes the construction of the following new emissions units:

| <b>EU ID</b> | <b>Emissions Unit Description</b>  |
|--------------|--|
| 001          | (CH-1) - Primary Crushing, and Associated Conveyors. Includes front end loaders to primary crusher, primary crusher operation, base rock and limestone conveyors to base rock storage pile and limestone storage building. |
| 002          | (CH-2) - Raw Material Conveying and transfer to and from storage piles.  |
| 003          | (CH-3) - Raw Material Processing and Storage. Including raw material transport from raw mill to blend silo, blend silo, fly ash silo, and kiln feed and fly ash transport to kiln.   |
| 004          | (CH-4) - Pyroprocessing System. Includes preheater/precalciner kiln with in-line raw mill, clinker cooler and air heater.  |
| 005          | (CH-5) - Clinker Storage and Conveying. Includes clinker transport from kiln; clinker, limestone, and gypsum silos; and clinker, limestone and gypsum conveying to finish mills.   |
| 006          | (CH-6) - Finish Mills Cement Processing. Includes two finish mills, cement silos, packaging plant and truck loadout.   |
| 007          | (CH-7) - Coal and Petroleum Coke Grinding System. Includes coal mill and ground coal/petroleum bins.   |
| 008          | (CH-8) – Coal and Petroleum Coke Conveying. Includes coal/petroleum coke handling and conveying from unloading to storage bins.  |
| 010          | (CH-10, CH-11) – Fugitive Dust From Storage Piles, Paved Roads, and Unpaved Roads.   |

**SECTION IV. APPENDIX BD**  
**FINAL BACT DETERMINATION AND EMISSION STANDARDS**

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**PRIMARY CRUSHING, AND ASSOCIATED CONVEYORS**

Visible Emission Standards: These opacity standards do not apply to truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher.

- a. Fugitive emissions from the crusher shall not exceed 15% opacity.
- b. Fugitive emissions from any transfer point on belt conveyors or from any other affected facility shall not exceed 10% opacity.

Opacity shall be determined in accordance with EPA Method 9.

**RAW MATERIALS CONVEYING AND TRANSFER**

The following BACT standards apply to each emissions point of this unit including all raw material storage bins and conveying system transfer points:

Emissions are limited to 5% opacity from any emissions point.

Opacity shall be determined in accordance with EPA Method 9.

**RAW MATERIALS PROCESSING AND STORAGE**

Each emissions point specifically identified for raw materials conveying, storage, and processing shall be controlled by a baghouse system. Each required baghouse shall be designed, operated, and maintained to achieve a PM design specification of 0.01 gr/dscf and a PM<sub>10</sub> design specification of 0.0085 gr/dscf.

The following BACT standards apply to each emissions point of this unit including all raw material storage bins and conveying system transfer points:

- a. Emissions are limited to 5% opacity from each of the above listed emissions points controlled by a baghouse.

Opacity shall be determined in accordance with EPA Method 9.

**PYROPROCESSING SYSTEM**

Emissions from the pyroprocessing system are controlled by the following equipment and techniques.

NO<sub>x</sub> Controls

*Low-NO<sub>x</sub> Burners and Indirect Firing:* The main kiln and calciner will be equipped with Low NO<sub>x</sub> burners that will create distinct combustion zones within the flame. An indirect firing system will be used to reduce the amount of primary air injected with the fuel used in the main kiln burner.

*Staged Combustion in the Calciner (SCC):* Introduction of fuel, air and meal to the calciner will be staged or sequenced for the reduction of NO<sub>x</sub> emissions.

*SNCR:* A selective non-catalytic reduction (SNCR) system shall be designed, constructed and operated to achieve the permitted levels for NO<sub>x</sub> emissions from the pyroprocessing system. The SNCR system will consist of an aqueous ammonia and/or urea tank, pumps, piping, compressed air delivery, injectors, control system, and other ancillary equipment. Aqueous ammonia and/or urea will be injected at a location(s) in the preheater/calciner with an appropriate temperature profile to support the SNCR process.

Particulate Matter (PM/PM<sub>10</sub>) Controls:

The permittee shall install a baghouse control system to remove particulate matter emissions from the pyroprocessing exhaust gas stream to achieve the PM/PM<sub>10</sub> emissions standards specified in this permit.

Sulfur Dioxide Controls:

The use of low-sulfur raw materials will help to keep SO<sub>2</sub> emissions below permitted levels. Additionally, a hydrated lime injection system shall be installed for utilization as needed to reduce SO<sub>2</sub> emissions.

Carbon Monoxide/Volatile Organic Compounds Controls:

**SECTION IV. APPENDIX BD**  
**FINAL BACT DETERMINATION AND EMISSION STANDARDS**

The owner or operator shall control CO and VOC emissions with a design providing sufficient time/temperature to oxidize these pollutants, good operating practices, and careful attention to the raw material mix.

Emissions from the pyroprocessing system shall not exceed the following BACT standards.

| Pollutant                        | Emission Limit          | Averaging Time  | Compliance Method | Basis |
|----------------------------------|-------------------------|-----------------|-------------------|-------|
| CO                               | 2.9 lb/ton of clinker   | 30-day rolling  | CEMS              | BACT  |
|                                  | 604.1 lb/hr             |                 |                   |       |
| NO <sub>x</sub> <sup>a</sup>     | 1.95 lb/ton of clinker  | 30-day rolling  | CEMS              | BACT  |
|                                  | 406.19 lb/hr            |                 |                   |       |
| PM/PM <sub>10</sub> <sup>b</sup> | 0.153 lb/ton of clinker | Three 1-hr runs | Annual Test       | BACT  |
|                                  | 31.87 lb/hr             |                 |                   |       |
|                                  | 10 % opacity            | 6-minute block  | COMS              |       |
| SO <sub>2</sub>                  | 0.20 lb/ton of clinker  | 24-hr rolling   | CEMS              | BACT  |
|                                  | 41.66 lb/hr             |                 |                   |       |
| VOC <sup>c</sup>                 | 0.115 lb/ton of clinker | 30-day block    | CEMS              | BACT  |
|                                  | 23.95 lb/hr             |                 |                   |       |

- a. For an “initial startup period” NO<sub>x</sub> emissions shall not exceed 3.0 lb/ton of clinker (624.9 lb/hour) based on a 30-day rolling average. The “initial startup” period shall begin after initial certification of the NO<sub>x</sub> CEMS and shall end as soon as any of the following conditions are met:
- 1) The Kiln system produces 121,500 tons of clinker or more in any 30-day rolling period.
  - 2) The Kiln system produces 250,000 tons of clinker.
  - 3) 365 days calendar days elapse after initial certification of the NO<sub>x</sub> CEMS.

After the “initial startup” period ends, NO<sub>x</sub> emissions shall not exceed 1.95 lb/ton of clinker (406.19 lb/hour) based on a 30-day rolling average. These requirements do not waive or vary any applicable NSPS or NESHAP monitoring or record keeping requirements.

- b. All PM emitted from the baghouse exhaust is assumed to be PM<sub>10</sub>. The BACT standard for PM is equivalent to approximately 0.09 lb per ton of preheater feed material. The emissions limits for particulate matter and visible emissions imposed by Rule 62-212.400(BACT) are as stringent as or more stringent than the limits imposed by the applicable NESHAP provisions. The BACT requirements do not waive or vary any applicable NESHAP monitoring or record keeping requirements.
- c. Compliance shall be demonstrated by THC CEMS. VOC emissions shall be measured as total hydrocarbons (THC) and expressed as “propane” for the mass emissions rate.

{Note: In combination with the annual clinker production limitation of 1,715,500 tons per year, the above emissions standards effectively limit annual potential emissions from this unit to: 2,487.5 tons/year of CO; 1,673 tons/year of NO<sub>x</sub> (after year one); 131 tons/year of PM/PM<sub>10</sub>; 172 tons/year of SO<sub>2</sub>; and 99 tons/year of VOC. Note that first year annual NO<sub>x</sub> emissions could be as high as 2,573 tons/year.}

**CLINKER STORAGE AND CONVEYING**

The following BACT standards apply to each emissions point of this unit including all raw material storage and conveying system transfer points:

- a. Emissions are limited to 5% opacity from each of the above listed emissions points controlled by a baghouse.
- b. Emissions are limited to 10% opacity from any emissions point not controlled by a baghouse.

**SECTION IV. APPENDIX BD**  
**FINAL BACT DETERMINATION AND EMISSION STANDARDS**

Each emissions point identified for clinker storage and conveying shall be controlled by a baghouse system. Each required baghouse shall be designed, operated, and maintained to achieve a PM design specification of 0.01 gr/dscf and a PM<sub>10</sub> design specification of 0.0085 gr/dscf. The 5% opacity limitation is consistent with this design and provides reasonable assurance that annual emissions of PM/PM<sub>10</sub> for all emission points in this emission unit system will be no more than 24.97/21.23 TPY.

Opacity shall be determined in accordance with EPA Method 9.

**FINISH MILLS CEMENT PROCESSING**

Particulate Matter Standards: Particulate matter emissions from the finish mill air separators (Points DC-02, and DC-04) shall not exceed 0.0085 grains per dscf of exhaust as determined by EPA method 5. All PM emitted from the baghouse exhaust is assumed to be PM<sub>10</sub>. The BACT requirements do not waive or vary any applicable NESHAP monitoring or record keeping requirements. [Rules 62-212.400 (BACT), F.A.C.]

Visible Emissions Standards: Visible emissions shall not exceed the following limits as determined by EPA Method 9:

- Visible emissions are limited to 5% opacity from each of the above listed emissions points controlled by a baghouse.
- Visible emissions are limited to 10% opacity from any emissions point not controlled by a baghouse.

{Note: The baghouses are designed to control PM emissions to 0.01 grains/dry standard cubic foot (gr/dscf) and PM<sub>10</sub> emissions to 0.0085 gr/dscf. The 5% opacity limitation is consistent with this design and provides reasonable assurance that annual emissions of PM/PM<sub>10</sub> from the above emissions points (excluding the air separators) will be less than 42.03/35.74 TPY. Exceedance of the 5% opacity limit shall be deemed an exceedance of this permit condition and not necessarily an exceedance of the opacity limitations given in 40 CFR 63, Subpart LLL.}

**COAL AND PETROLEUM COKE GRINDING SYSTEM**

Particulate Matter Standards: Particulate matter emissions from the coal mill (Point ID DC-06 and DC-07) shall not exceed 0.0085 grains per dscf of exhaust as determined by EPA method 5. All PM emitted from the baghouse exhaust is assumed to be PM<sub>10</sub>. The BACT requirements do not waive or vary any applicable NESHAP monitoring or record keeping requirements.

Visible Emissions Standards: Visible emissions from each baghouse shall not exceed 5% opacity as determined by EPA Method 9.

**COAL AND PETROLEUM COKE CONVEYING**

Visible Emissions Standards: Visible emissions from all coal/petcoke processing and conveying equipment, coal/petcoke storage system, or coal/petcoke transfer and loading system processing coal/petcoke, and not controlled by a baghouse, shall not exceed 5 % opacity.

**FUGITIVE DUST FROM STORAGE PILES, PAVED ROADS, AND UNPAVED ROADS**

The following work practices were determined as BACT for the control of fugitive emissions:

- a. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity without taking reasonable precautions to prevent such emissions. Such activities include, but are not limited to: vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling.
- b. Reasonable precautions shall include the following:
  - (1) Landscaping and planting of vegetation.
  - (2) Application of water to control fugitive dust from activities such as demolition of buildings, grading roads, construction, and land clearing.
  - (3) Water supply lines, hoses and sprinklers shall be located near all stockpiles of raw materials, coal, and petroleum coke.

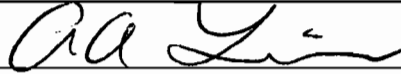
SECTION IV. APPENDIX BD

FINAL BACT DETERMINATION AND EMISSION STANDARDS

- (4) All plant operators shall be trained in basic environmental compliance and shall perform visual inspections of raw materials, coal and petroleum coke periodically and before handling. If the visual inspections indicate a lack of surface moisture, such materials shall be wetted with sprinklers. Wetting shall continue until the potential for unconfined particulate matter emissions are minimized.
  - (5) Water spray shall be used to wet the materials and fuel if inherent moisture and moisture from wetting the storage piles are not sufficient to prevent unconfined particulate matter emissions.
  - (6) As necessary, applications of asphalt, water, or dust suppressants to unpaved roads, yards, open stockpiles and similar activities.
  - (7) Paving of access roadways, parking areas, manufacture area, and fuel storage yard.
  - (8) Removal of dust from buildings, roads, and other paved areas under the control of the owner or operator of the facility to prevent particulate matter from becoming airborne.
  - (9) A vacuum sweeper shall be used to remove dust from paved roads, parking, and other work areas.
  - (10) Enclosure or covering of conveyor systems where practicably feasible.
  - (11) All materials at the plant shall be stored under roof. Materials, other than quarried materials, shall be stored on compacted clay or concrete, or in enclosed vessels.
  - (12) Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
  - (13) Confining abrasive blasting where possible.
- c. In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

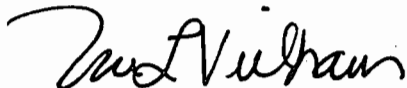
**DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:**

A. A. Linero, P.E., Program Administrator  
South Permitting Section  
Department of Environmental Protection  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400



Recommended By:

Approved By:



Trina L. Vielhauer, Chief  
Bureau of Air Regulation



Michael G. Cooke, Director  
Division of Air Resources Management

January 31, 2000  
Date

1-6-00  
Date

**SECTION IV. APPENDIX C**  
**COMMON STATE RULES**

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Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.

**EMISSIONS AND CONTROLS**

1. **Plant Operation - Problems:** If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
2. **Circumvention:** The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
3. **Excess Emissions Allowed:** 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.]
4. **Excess Emissions Prohibited:** Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
5. **Excess Emissions - Notification:** In case of excess emissions resulting from malfunctions, the permittee shall notify the Department or the appropriate Local Program 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.]
6. **VOC or OS Emissions:** No person shall 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. [Rule 62-296.320(1), F.A.C.]
7. **Objectionable Odor Prohibited:** No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(203), F.A.C.]
8. **General Visible Emissions:** No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]
9. **Unconfined Particulate Emissions:** During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

**GENERAL COMPLIANCE TESTING REQUIREMENTS**

The focal point of a compliance test is the stack or duct which vents process and/or combustion gases and air pollutants from an emissions unit into the ambient air. [Rule 62-297.310, F.A.C.]

10. **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 two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

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11. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the 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. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. [Rule 62-297.310(2), F.A.C.]
12. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
13. Applicable Test Procedures [Rule 62-297.310(4), F.A.C.]
  - 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:
      - (a) For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
      - (b) The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
      - (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 or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.
  - c. *Calibration of Sampling Equipment*. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.
  - 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.
14. Determination of Process Variables [Rule 62-297.310(5), F.A.C.]
  - 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.



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15. **Sampling Facilities:** The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must also comply with all applicable Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E. [Rule 62-297.310(6), F.A.C.]
- a. *Permanent Test Facilities.* The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.
  - b. *Temporary Test Facilities.* The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.
  - c. *Sampling Ports.*
    - (1) All sampling ports shall have a minimum inside diameter of 3 inches.
    - (2) The ports shall be capable of being sealed when not in use.
    - (3) The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, ~~constriction or other flow~~ disturbance.
    - (4) For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.
    - (5) On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.
  - d. *Work Platforms.*
    - (1) Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.
    - (2) On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.
    - (3) On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.
    - (4) All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toe board, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.
  - e. *Access to Work Platform.*
    - (1) Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.
    - (2) Walkways over free-fall areas shall be equipped with safety rails and toe boards.
  - f. *Electrical Power.*
    - (1) A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.
    - (2) If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.

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*g. Sampling Equipment Support.*

- (1) A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.
  - (a) The bracket shall be a standard 3 inch × 3 inch × one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.
  - (b) A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.
  - (c) The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.
- (2) A complete monorail or dualrail arrangement may be substituted for the eyebolt and bracket.
- (3) When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

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

*a. General Compliance Testing.*

1. The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.
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 and/or solid 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 sub-subparagraph 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 and/or solid 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) a. Visible emissions, if there is an applicable standard;
  - (b) 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) c. Each NESHAP pollutant, if there is an applicable emission standard.

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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 and/or solid fuel, other than during startup, for a total of more than 400 hours.
  6. For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.
  7. For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to paragraph 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.
  8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
  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.
  10. An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to subsection 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to subparagraph 62-213.300(2)(a)1., F.A.C., or paragraph 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in paragraph 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing.
- 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 shall 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 paragraph 62-297.310(7)(b), F.A.C., shall apply.

**RECORDS AND REPORTS**

**17. Test Reports [Rule 62-297.310(8), F.A.C.]**

- 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.

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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.

**RECORDS AND REPORTS**

18. **Records Retention:** All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]
19. **Annual Operating Report:** The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

**SECTION IV. APPENDIX GC**  
**CONSTRUCTION PERMIT GENERAL CONDITIONS**

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The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
  - a. Have access to and copy and records that must be kept under the conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of non-compliance; and
  - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida

**SECTION IV. APPENDIX GC**  
**CONSTRUCTION PERMIT GENERAL CONDITIONS**

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Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
  - a. Determination of Best Available Control Technology;
  - b. Determination of Prevention of Significant Deterioration; and
  - c. Compliance with New Source Performance Standards.
14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - a. The date, exact place, and time of sampling or measurements;
    - b. The person responsible for performing the sampling or measurements;
    - c. The dates analyses were performed;
    - d. The person responsible for performing the analyses;
    - e. The analytical techniques or methods used; and
    - f. The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SECTION IV. APPENDIX LLL**

**NESHAP SUBPART LLL PROVISIONS – PORTLAND CEMENT MANUFACTURING INDUSTRY**

The provisions of this subsection apply to the following emissions units.

| <b>EU ID</b> | <b>Emissions Unit Description</b>  |
|--------------|--|
| 002          | (CH-2) - Raw Material Conveying and transfer to and from storage piles.  |
| 003          | (CH-3) - Raw Material Processing and Storage. Including raw material transport from raw mill to blend silo, blend silo, fly ash silo, and kiln feed and fly ash transport to kiln. |
| 004          | (CH-4) - Pyroprocessing System. Includes preheater/precalciner kiln with in-line raw mill, clinker cooler and air heater.  |
| 005          | (CH-5) - Clinker Storage and Conveying. Includes clinker transport from kiln; clinker, limestone, and gypsum silos; and clinker, limestone and gypsum conveying to finish mills.   |
| 006          | (CH-6) - Finish Mills Cement Processing. Includes two finish mills, cement silos, packaging plant and truck loadout.   |
| 010          | (CH-10, CH-11) – Fugitive Dust From Storage Piles, Paved Roads, and Unpaved Roads.   |

1. NESHAP Subpart A: The affected emissions units are subject to the applicable General Provisions in NESHAP Subpart A of 40 CFR 63, as adopted by Rule 62-204.800(11), F.A.C. At the end of Appendix LLL, Table LLL-1 summarizes the portions of the NESHAP General Provisions that are applicable to the affected NESHAP Subpart LLL units. [40 CFR 63, Subpart A]
2. NESHAP Subpart LLL: The affected emissions units are subject to the applicable requirements for the Portland Cement Manufacturing Industry specified in NESHAP Subpart LLL of 40 CFR 63, as adopted by Rule 62-204.800(11), F.A.C. [40 CFR 63, Subpart LLL]

**§ 63.1340 Applicability and Designation of Affected Sources.**

- (a) Except as specified in paragraphs (b) and (c) of this section, the provisions of this subpart apply to each new and existing portland cement plant which is a major source as defined in §63.2.
- (b) The affected sources subject to this subpart are:
  - (1) Each kiln and each in-line kiln/raw mill at any major source, including alkali bypasses, except for kilns and in-line kiln/raw mills that burn hazardous waste and are subject to and regulated under subpart EEE of this part;
  - (2) Each clinker cooler at any portland cement plant which is a major source;
  - (3) Each raw mill at any portland cement plant which is a major source;
  - (4) Each finish mill at any portland cement plant which is a major source;
  - (5) Each raw material dryer at any portland cement plant which is a major source and each greenfield raw material dryer at any portland cement plant which is a major source;
  - (6) Each raw material, clinker, or finished product storage bin at any portland cement plant which is a major source;
  - (7) Each conveying system transfer point including those associated with coal preparation used to convey coal from the mill to the kiln at any portland cement plant which is a major source;
  - (8) Each bagging system at any portland cement plant which is a major source; and
- (c) For portland cement plants with on-site nonmetallic mineral processing facilities, the first affected source in the sequence of materials handling operations subject to this subpart is the raw material storage, which is just prior to the raw mill. Any equipment of the on-site nonmetallic mineral processing plant which precedes the raw material storage is not subject to this subpart. In addition, the primary and secondary crushers of the on-site nonmetallic mineral processing plant, regardless of whether they precede the raw material storage, are not subject to this subpart. Furthermore, the first conveyor transfer point subject to this subpart is the transfer point associated with the conveyor transferring material from the raw material storage to the raw mill.
- (d) The owner or operator of any affected source subject to the provisions of this subpart is subject to title V permitting requirements.

## SECTION IV. APPENDIX LLL

### NESHAP SUBPART LLL PROVISIONS – PORTLAND CEMENT MANUFACTURING INDUSTRY

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#### § 63.1341 Definitions.

All terms used in this subpart that are not defined below have the meaning given to them in the CAA and in subpart A of this part.

*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.

*Bin* means a manmade enclosure for storage of raw materials, clinker, or finished product prior to further processing at a Portland cement plant.

*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 §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.

*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 fly ash, 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 §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.

*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.



**SECTION IV. APPENDIX LLL**

**NESHAP SUBPART LLL PROVISIONS – PORTLAND CEMENT MANUFACTURING INDUSTRY**

*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.

*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.

**§ 63.1342 Standards - General.**

- (a) Table 1 to this subpart provides cross references to the 40 CFR part 63, subpart A, general provisions, indicating the applicability of the general provisions requirements to subpart LLL.
- (b) Table 1 of this section provides a summary of emission limits and operating limits of this subpart.

**Table 1 to § 63.1342. Emission Limits and Operating Limits.**

| <b>Affected Source</b>  | <b>Pollutant / Opacity</b> | <b>Emission and Operating Limit</b>  |
|---|----------------------------|--|
| All kilns and in-line kiln/raw mills at major sources (including alkali bypass) | PM                         | 0.15 kg/Mg of feed (dry basis)   |
|   | Opacity                    | 20 percent   |
| All kilns and in-line kiln/raw mills at major sources (including alkali bypass) | D/F                        | 0.20 ng TEQ/dscm corrected to 7 percent oxygen<br>or<br>0.40 ng TEQ/dscm corrected to 7 percent oxygen when the average of the performance test run average particulate matter control device (PMCD) inlet temperatures is 204° C or less.<br><br>Operate such that the three-hour rolling average PMCD inlet temperature is no greater than the temperature established at performance test.<br><br>If activated carbon injection is used: Operate such that the three-hour rolling average activated carbon injection rate is no less than rate established at performance test. Operate such that either the carrier gas flow rate or carrier gas pressure drop exceeds the value established at performance test. Inject carbon of equivalent specifications to that used at performance test. |
| New greenfield kilns and in-line kiln/raw mills at major sources                | THC                        | 50 ppmvd, as propane, corrected to 7 percent oxygen  |
| All clinker coolers at major sources  | PM                         | 0.050 kg/Mg of feed (dry basis)  |
|   | Opacity                    | 10 percent   |
| All raw mills and finish mills at major sources                                 | Opacity                    | 10 percent   |

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**NESHAP SUBPART LLL PROVISIONS – PORTLAND CEMENT MANUFACTURING INDUSTRY**

| <b>Affected Source</b>  | <b>Pollutant / Opacity</b> | <b>Emission and Operating Limit</b>                 |
|---|----------------------------|---|
| New greenfield raw material dryers at major sources                   | THC                        | 50 ppmvd, as propane, corrected to 7 percent oxygen |
| All raw material dryers and material handling points at major sources | Opacity                    | 10 percent  |

**§ 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 ( $8.7 \times 10^{-11}$  gr per dscf)(TEQ) corrected to seven percent oxygen; or
    - (ii) 0.40 ng per dscm ( $1.7 \times 10^{-10}$  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° C (400° F) or less.
- (c) *Greenfield/major sources.* No owner or operator that commences construction of a greenfield kiln or greenfield inline kiln/raw mill at a facility which 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 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 bypass stack 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 ( $8.7 \times 10^{-11}$  gr per dscf)(TEQ) corrected to seven percent oxygen; or
    - (ii) 0.40 ng per dscm ( $1.7 \times 10^{-10}$  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° C (400° F) or less.
  - (4) Contain total hydrocarbon (THC), from the main exhaust of the kiln or in-line kiln/raw mill, in excess of 50 ppmvd as propane, corrected to seven percent oxygen.
- (d) *Reserved*
- (e) *Rseserved*

**§ 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 §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 §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

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**NESHAP SUBPART LLL PROVISIONS – PORTLAND CEMENT MANUFACTURING INDUSTRY**

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, with or without the raw mill 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 §63.1349(b)(3)(iv).
- (c) The owner or operator of an affected source subject to a D/F emission limitation under §63.1343 that employs carbon injection as an emission control technique must operate the carbon injection system in accordance with paragraphs (c)(1) and (c)(2) of this section.
- (1) The three-hour rolling average activated carbon injection rate shall be equal to or greater than the activated carbon injection rate determined in accordance with §63.1349(b)(3)(vi).
  - (2) The owner or operator shall either:
    - (i) Maintain the minimum activated carbon injection carrier gas flow rate, as a three-hour rolling average, based on the manufacturer's specifications. These specifications must be documented in the test plan developed in accordance with §63.7(c) of this part, or
    - (ii) Maintain the minimum activated carbon injection carrier gas pressure drop, as a three-hour rolling average, based on the manufacturer's specifications. These specifications must be documented in the test plan developed in accordance with §63.7(c).
- (d) Except as provided in paragraph (e) of this section, the owner or operator of an affected source subject to a D/F emission limitation under §63.1343 that employs carbon injection as an emission control technique must specify and use the brand and type of activated carbon used during the performance test until a subsequent performance test is conducted, unless the site-specific performance test plan contains documentation of key parameters that affect adsorption and the owner or operator establishes limits based on those parameters, and the limits on these parameters are maintained.
- (e) The owner or operator of an affected source subject to a D/F emission limitation under §63.1343 that employs carbon injection as an emission control technique may substitute, at any time, a different brand or type of activated carbon provided that the replacement has equivalent or improved properties compared to the activated carbon specified in the site-specific performance test plan and used in the performance test. The owner or operator must maintain documentation that the substitute activated carbon will provide the same or better level of control as the original activated carbon.

**§ 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]

**§ 63.1346 Standards for New and Reconstructed Raw Material Dryers.**

- (a) *Brownfield/major sources.* No owner or operator of a new or reconstructed brownfield raw material dryer at a facility which is a major source subject to this subpart shall cause to be discharged into the atmosphere from the new or reconstructed raw material dryer any gases which exhibit opacity greater than ten percent.
- (b) *Reserved*
- (c) *Greenfield/major sources.* No owner or operator of a greenfield raw material dryer at a facility which is a major source subject to this subpart shall cause to be discharged into the atmosphere from the greenfield raw material dryer any gases

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**NESHAP SUBPART LLL PROVISIONS – PORTLAND CEMENT MANUFACTURING INDUSTRY**

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which:

- (1) Contain THC in excess of 50 ppmvd, reported as propane, corrected to seven percent oxygen.
- (2) Exhibit opacity greater than ten percent.

**§ 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.

**§ 63.1348 Standards for Affected Sources Other than Kilns; In-line Kiln/Raw Mills; Clinker coolers; New and Reconstructed Raw Material Dryers; and Raw and Finish Mills.**

The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system; and each existing raw material dryer, at a facility which is a major source subject to the provisions of this subpart shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent.

**§ 63.1349 Performance Testing Requirements.**

- (a) The owner or operator of an affected source subject to this subpart shall demonstrate initial compliance with the emission limits of §63.1343 and §§63.1345 through 63.1348 using the test methods and procedures in paragraph (b) of this section and §63.7. Performance test results shall be documented in complete test reports that contain the information required by paragraphs (a)(1) through (a)(10) of this section, 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 this subpart shall be conducted as specified in paragraphs (b)(1) through (b)(4) of this section.
  - (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 (b)(1)(i) through (b)(1)(iv) of this section. 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 (b)(1)(i) through (b)(1)(iv) of this section 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 (b)(1)(i) through (b)(1)(iii) of this section. The opacity exhibited during the period of the Method 5 of Appendix A to part 60 of this chapter performance tests required by paragraph (b)(1)(i) of this section shall be determined as required in paragraphs (b)(1)(v) through (vi) of this section.
    - (i) Method 5 of appendix A to part 60 of this chapter 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 representative performance conditions in accordance with Sec. 63.7(e). Each run shall be conducted for at least 1 hour, and the minimum sample volume shall be 0.85 dscm (30 dscf). The average of

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### NESHAP SUBPART LLL PROVISIONS – PORTLAND CEMENT MANUFACTURING INDUSTRY

the three runs shall be used to determine compliance. A determination of the PM 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 this subpart. 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 inline 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:

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

Where:

E = emission rate of particulate matter, kg/Mg of kiln feed.

$c_s$  = concentration of PM, kg/dscm.

$Q_{sd}$  = volumetric flow rate of effluent gas, dscm/hr.

P = total kiln feed (dry basis), Mg/hr.

- (iv) When there is an alkali bypass associated with a kiln or in-line kiln/raw mill, the main exhaust and alkali bypass of the kiln or in-line kiln/raw mill shall be tested simultaneously and the combined emission rate of particulate matter from the kiln or in-line kiln/raw mill and alkali bypass shall be computed for each run using equation 2,

$$E_c = (c_{sk} Q_{sdk} + c_{sb} Q_{sdb}) / P \quad (\text{Eq 2})$$

Where:

$E_c$  = the combined emission rate of particulate matter from the kiln or in-line kiln/raw mill and bypass stack, kg/Mg of kiln feed.

$c_{sk}$  = concentration of particulate matter in the kiln or in-line kiln/raw mill effluent, kg/dscm.

$Q_{sdk}$  = volumetric flow rate of kiln or in-line kiln/raw mill effluent, dscm/hr.

$c_{sb}$  = concentration of particulate matter in the alkali bypass gas, kg/dscm.

$Q_{sdb}$  = volumetric flow rate of alkali bypass gas, dscm/hr.

P = total kiln feed (dry basis), Mg/hr.

- (v) Except as provided in paragraph (b)(1)(vi) of this section the opacity exhibited during the period of the Method 5 performance tests required by paragraph (b)(1)(i) of this section 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 §63.1343(b)(2), §63.1343(c)(2), or §63.1345(a)(2).
- (vi) Each owner or operator of a kiln, in-line kiln/raw mill, or clinker cooler subject to the provisions of this subpart using a fabric filter with multiple stacks or an electrostatic precipitator with multiple stacks may, in lieu of installing the continuous opacity monitoring system required by paragraph (b)(1)(v) of this section, conduct an opacity test in accordance with Method 9 of appendix A to part 60 of this chapter during each Method 5 performance test required by paragraph (b)(1)(i) of this section. If the control device exhausts through a monovent, or if the use of a COM in accordance with the installation specifications of Performance Specification 1 (PS-1) of appendix B to part 60 of this chapter is not feasible, a test shall be conducted in accordance with Method 9 of appendix A to part 60 of this chapter during each Method 5 performance test required by paragraph (b)(1)(i) of this section. The maximum six-minute average opacity shall be determined during the three Method 5 test runs, and used to demonstrate initial compliance with the applicable opacity limits of §63.1343(b)(2), §63.1343(c)(2), or §63.1345(a)(2).
- (2) The owner or operator of any affected source subject to limitations on opacity under this subpart that is not subject to paragraph (b)(1) of this section shall demonstrate initial compliance with the affected source opacity limit by conducting a test in accordance with Method 9 of appendix A to part 60 of this chapter. The performance test shall be conducted under the conditions that exist when the affected source is operating at the representative

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performance conditions in accordance with Sec. 63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of paragraphs (b)(2)(i) through (ii) of this section apply:

- (i) There are no individual readings greater than 10 percent opacity;
  - (ii) There are no more than three readings of 10 percent for the first 1-hour period.
- (3) The owner or operator of an affected source subject to limitations on D/F emissions under this subpart shall demonstrate initial compliance with the D/F emission limit by conducting a performance test using Method 23 of appendix A to part 60 of this chapter. 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. The owner or operator of a kiln or in-line kiln/raw mill equipped with an alkali bypass shall conduct simultaneous performance tests of the kiln or in-line kiln/raw mill exhaust and the alkali bypass. However, the owner or operator of an in-line kiln/raw mill may conduct a performance test of the alkali bypass exhaust when the raw mill of the in-line kiln/raw mill is operating or not operating.
- (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 representative performance conditions in accordance with Sec. 63.7(e). The duration of each run shall be at least 3 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 §63.1344(b).
  - (v) If activated carbon injection is used for D/F control, the rate of activated carbon injection to the kiln or in-line kiln/raw mill exhaust, and where applicable, the rate of activated carbon injection to the alkali bypass exhaust, must be continuously recorded during the period of the Method 23 test, and the continuous injection rate record(s) must be included in the performance test report. In addition, the performance test report must include the brand and type of activated carbon used during the performance test and a continuous record of either the carrier gas flow rate or the carrier gas pressure drop for the duration of the test. Activated carbon injection rate parameters must be determined in accordance with paragraphs (b)(3)(vi) of this section.
  - (vi) The run average injection rate must be calculated for each run, and the average of the run average injection rates must be determined and included in the performance test report and will determine the applicable injection rate limit in accordance with §63.1344(c)(1).
- (4) The owner or operator of an affected source subject to limitations on emissions of THC shall demonstrate initial compliance with the THC limit by operating a continuous emission monitor in accordance with Performance Specification 8A of appendix B to part 60 of this chapter. The duration of the performance test shall be three hours, and the average THC concentration (as calculated from the one-minute averages) during the three hour performance test shall be calculated. 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.
- (c) Except as provided in paragraph (e) of this section, performance tests required under paragraphs (b)(1) and (b)(2) of this section shall be repeated every five years, except that the owner or operator of a kiln, in-line kiln/raw mill or clinker cooler is not required to repeat the initial performance test of opacity for the kiln, in-line kiln/raw mill or clinker cooler.

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- (d) Performance tests required under paragraph (b)(3) of this section shall be repeated every 30 months.
- (e) (1) If a source plans to undertake a change in operations that may adversely affect compliance with an applicable D/F standard under this subpart, the source must conduct a performance test and establish new temperature limit(s) as specified in paragraph (b)(3) of this section.
  - (2) If a source plans to undertake a change in operations that may adversely affect compliance with an applicable PM standard under Sec. 63.1343, the source must conduct a performance test as specified in paragraph (b)(1) of this section.
  - (3) In preparation for and while conducting a performance test required in paragraph (e)(1) of this section, a source may operate under the planned operational change conditions for a period not to exceed 360 hours, provided that the conditions in paragraphs (e)(3)(i) through (iv) of this section are met. The source shall submit temperature and other monitoring data that are recorded during the pretest operations.
    - (i) The source must provide the Administrator written notice at least 60 days prior to undertaking an operational change that may adversely affect compliance with an applicable standard under this subpart, or as soon as practicable where 60 days advance notice is not feasible. Notice provided under this paragraph shall include a description of the planned change, the emissions standards that may be affected by the change, and a schedule for completion of the performance test required under paragraph (e)(1) of this section, including when the planned operational change period would begin.
    - (ii) The performance test results must be documented in a test report according to paragraph (a) of this section.
    - (iii) A test plan must be made available to the Administrator prior to testing, if requested.
    - (iv) The performance test must be conducted, and it must be completed within 360 hours after the planned operational change period begins.
- (f) Table 1 of this section provides a summary of the performance test requirements of this subpart.

**TABLE 1 TO § 63.1349. SUMMARY OF PERFORMANCE TEST REQUIREMENTS**

| <b>Affected Source and Pollutant</b>  | <b>Performance Test</b>   |
|---|---|
| New and existing kiln and in-line kiln/raw mill <sup>b,c</sup> PM   | EPA Method 5 <sup>a</sup>   |
| New and existing kiln and in-line kiln/raw mill <sup>b,c</sup> Opacity  | COM if feasible <sup>d,e</sup> or EPA Method 9 visual opacity readings. |
| New and existing kiln and in-line kiln/raw mill <sup>b,c,f,g</sup> D/F  | EPA Method 23 <sup>h</sup>  |
| New greenfield kiln and in-line kiln/raw mill <sup>c</sup> THC  | THC CEM (EPA PS-8A) <sup>i</sup>  |
| New and existing clinker cooler PM  | EPA Method 5 <sup>a</sup>   |
| New and existing clinker cooler opacity   | COM <sup>d,j</sup> or EPA Method 9 visual opacity readings              |
| New and existing raw and finish mill opacity  | EPA Method 9 <sup>a,j</sup>   |
| New and existing raw material dryer and materials handling processes (raw material storage, clinker storage, finished product storage, conveyor transfer points, bagging, and bulk loading and unloading systems) opacity | EPA Method 9 <sup>a,j</sup>   |
| New greenfield raw material dryer THC   | THC CEM (EPA PS-8A) <sup>i</sup>  |

<sup>a</sup> Required initially and every 5 years thereafter.

<sup>b</sup> Includes main exhaust and alkali bypass.

<sup>c</sup> In-line kiln/raw mill to be tested with and without raw mill in operation.

<sup>d</sup> Must meet COM performance specification criteria. If the fabric filter or electrostatic precipitator has multiple

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stacks, daily EPA Method 9 visual opacity readings may be taken instead of using a COM.

- e Opacity limit is 20 percent.
- f Alkali bypass is tested with the raw mill operating or not operating.
- g Temperature and (if applicable) activated carbon injection parameters determined separately with and without the raw mill operating.
- h Required initially and every 30 months thereafter.
- i EPA Performance Specification (PS)-8A of appendix B to part 60 of this chapter.
- j Opacity limit is 10 percent.

**§ 63.1350 Monitoring Requirements.**

- (a) The owner or operator of each portland cement plant shall prepare for each affected source subject to the provisions of this subpart, a written operations and maintenance plan. The plan shall be submitted to the Administrator for review and approval as part of the application for a part 70 permit and shall 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 §63.1343 through §63.1348;
  - (2) Corrective actions to be taken when required by paragraph (e) of this section;
  - (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; and
  - (4) Procedures to be used to periodically monitor affected sources subject to opacity standards under §63.1346 and §63.1348. Such procedures must include the provisions of paragraphs (a)(4)(i) through (a)(4)(iv) of this section.
    - (i) 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 part 60 of this chapter. The test must be conducted while the affected source is in operation.
    - (ii) 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.
    - (iii) 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.
    - (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 to part 60 of this chapter. The Method 9 test must begin within one hour of any observation of visible emissions.
    - (v) The requirement to conduct Method 22 visible emissions monitoring under this paragraph shall not apply to any totally enclosed conveying system transfer point, regardless of the location of the transfer point. "Totally enclosed conveying system transfer point" shall mean a conveying system transfer point that is enclosed on all sides, top, and bottom. The enclosures for these transfer points shall be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan.
    - (vi) If any partially enclosed or unenclosed conveying system transfer point is located in a building, the owner or operator of the portland cement plant shall have the option to conduct a Method 22 visible emissions monitoring test according to the requirements of paragraphs (a)(4)(i) through (iv) of this section for each such conveying system transfer point located within the building, or for the building itself, according to paragraph (a)(4)(vii) of this section.
    - (vii) If visible emissions from a building are monitored, the requirements of paragraphs (a)(4)(i) through (iv) of this section apply to the monitoring of the building, and you must also test visible emissions from each side, roof



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and vent of the building for at least 1 minute. The test must be conducted under normal operating conditions.

- (b) Failure to comply with any provision of the operations and maintenance plan developed in accordance with paragraph (a) of this section 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 including alkali bypasses in accordance with paragraphs (c)(1) through (c)(3) of this section.
  - (1) Except as provided in paragraph (c)(2) of this section, 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 part, and according to PS-1 of appendix B to part 60 of this chapter.
  - (2) The owner or operator of a kiln or in-line kiln/raw mill subject to the provisions of this subpart using a fabric filter with multiple stacks or an electrostatic precipitator with multiple stacks may, in lieu of installing the continuous opacity monitoring system required by paragraph (c)(1) of this section, monitor opacity in accordance with paragraphs (c)(2)(i) through (ii) of this section. If the control device exhausts through a monovent, or if the use of a COM in accordance with the installation specifications of PS-1 of appendix B to part 60 of this chapter is not feasible, the owner or operator must monitor opacity in accordance with paragraphs (c)(2)(i) through (ii) of this section.
    - (i) Perform daily visual opacity observations of each stack in accordance with the procedures of Method 9 of appendix A to part 60 of this chapter. The Method 9 test shall be conducted while the affected source is operating at the representative performance conditions. The duration of the Method 9 test shall be at least 30 minutes each day.
    - (ii) Use the Method 9 procedures to monitor and record the average opacity for each six-minute period during the test.
  - (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 (d)(1) through (d)(3) of this section.
  - (1) Except as provided in paragraph (d)(2) of this section, 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 this part, and according to PS-1 of appendix B to part 60 of this chapter.
  - (2) The owner or operator of a clinker cooler subject to the provisions of this subpart using a fabric filter with multiple stacks or an electrostatic precipitator with multiple stacks may, in lieu of installing the continuous opacity monitoring system required by paragraph (d)(1) of this section, monitor opacity in accordance with paragraphs (d)(2)(i) through (ii) of this section. If the control device exhausts through a monovent, or if the use of a COM in accordance with the installation specifications of PS-1 of appendix B to part 60 of this chapter is not feasible, the owner or operator must monitor opacity in accordance with paragraphs (d)(2)(i) through (ii) of this section.
    - (i) Perform daily visual opacity observations of each stack in accordance with the procedures of Method 9 of appendix A to part 60 of this chapter. The Method 9 test shall be conducted while the affected source is operating at the representative performance conditions. The duration of the Method 9 test shall be at least 30 minutes each day.
    - (ii) Use the Method 9 procedures to monitor and record the average opacity for each six-minute period during the test.
  - (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.
- (e) The owner or operator of a raw mill or finish mill shall monitor opacity by conducting daily visual emissions

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observations of the mill sweep and air separator PMCD of these affected sources in accordance with the procedures of Method 22 of appendix A to part 60 of this chapter. The Method 22 test shall be conducted while the affected source is operating at the representative performance conditions. The duration of the Method 22 test shall be 6 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 (a)(1) and (a)(2) of this section; and
  - (2) Within 24 hours of the end of the Method 22 test in which visible emissions were observed, conduct a follow-up Method 22 test of each stack from which visible emissions were observed during the previous Method 22 test. If visible emissions are observed during the follow-up Method 22 test from any stack from which visible emissions were observed during the previous Method 22 test, conduct a visual opacity test of each stack from which emissions were observed during the follow up Method 22 test in accordance with Method 9 of appendix A to part 60 of this chapter. The duration of the Method 9 test shall be 30 minutes.
- (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 (f)(1) through (f)(6) of this section.
- (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, in-line kiln/raw mill and alkali bypass, if applicable, at the inlet to, or upstream of, the kiln, in-line kiln/raw mill and/or alkali bypass 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 §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, in-line kiln/raw mill and alkali bypass, if applicable, at the inlet to the kiln, in-line kiln/raw mill and/or alkali bypass 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.
- (g) The owner or operator of an affected source subject to a limitation on D/F emissions that employs carbon injection as an emission control technique shall comply with the monitoring requirements of paragraphs (f)(1) through (f)(6) and (g)(1) through (g)(6) of this section to demonstrate continuous compliance with the D/F emission standard.
- (1) Install, operate, calibrate and maintain a continuous monitor to record the rate of activated carbon injection. The accuracy of the rate measurement device must be  $\pm 1$  percent of the rate being measured.
  - (2) Verify the calibration of the device at least once every three months.
  - (3) The three-hour rolling average activated carbon injection rate shall be calculated as the average of 180 successive one-minute average activated carbon injection rates.
  - (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 activated carbon injection rate must begin anew, without

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considering previous recordings.

- (6) The owner or operator must install, operate, calibrate and maintain a continuous monitor to record the activated carbon injection system carrier gas parameter (either the carrier gas flow rate or the carrier gas pressure drop) established during the D/F performance test in accordance with paragraphs (g)(6)(i) through (g)(6)(iii) of this section.
  - (i) The owner or operator shall install, calibrate, operate and maintain a device to continuously monitor and record the parameter value.
  - (ii) The owner or operator must calculate and record three-hour rolling averages of the parameter value.
  - (iii) 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 shall be added to the previous 179 values to calculate the three-hour rolling average.
- (h) The owner or operator of an affected source subject to a limitation on THC emissions under this subpart shall comply with the monitoring requirements of paragraphs (h)(1) through (h)(3) of this section to demonstrate continuous compliance with the THC emission standard:
  - (1) The owner or operator shall install, operate and maintain a THC continuous emission monitoring system in accordance with Performance Specification 8A, of appendix B to part 60 of this chapter and comply with all of the requirements for continuous monitoring systems found in the general provisions, subpart A of this part.
  - (2) The owner or operator is not required to calculate hourly rolling averages in accordance with section 4.9 of Performance Specification 8A.
  - (3) Any thirty-day block average THC concentration in any gas discharged from a greenfield raw material dryer, the main exhaust of a greenfield kiln, or the main exhaust of a greenfield in-line kiln/raw mill, exceeding 50 ppmvd, reported as propane, corrected to seven percent oxygen, is a violation of the standard.
- (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.
- (j) The owner or operator of an affected source subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with paragraph (a) of this section.
- (k) The owner or operator of an affected source subject to a particulate matter standard under §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. All requirements relating to installation, calibration, maintenance, operation or performance of the PM CEMS and implementation of the PM CEMS requirement are deferred pending further rulemaking.
- (l) An owner or operator may submit an application to the Administrator for approval of alternate monitoring requirements to demonstrate compliance with the emission standards of this subpart, except for emission standards for THC, subject to the provisions of paragraphs (l)(1) through (l)(6) of this section.
  - (1) The Administrator will not approve averaging periods other than those specified in this section, unless the owner or operator documents, using data or information, that the longer averaging period will ensure that emissions do not exceed levels achieved during the performance test over any increment of time equivalent to the time required to conduct three runs of the performance test.
  - (2) If the application to use an alternate monitoring requirement is approved, the owner or operator must continue to use the original monitoring requirement until approval is received to use another monitoring requirement.
  - (3) The owner or operator shall submit the application for approval of alternate monitoring requirements no later than the notification of performance test. The application must contain the information specified in paragraphs (l)(3)(i) through (l)(3)(iii) of this section:
    - (i) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach;

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- (ii) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach and technique, the averaging period for the limit, and how the limit is to be calculated; and
  - (iii) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard.
- (4) The Administrator will notify the owner or operator of the approval or denial of the application within 90 calendar days after receipt of the original request, or within 60 calendar days of the receipt of any supplementary information, whichever is later. The Administrator will not approve an alternate monitoring application unless it would provide equivalent or better assurance of compliance with the relevant emission standard. Before disapproving any alternate monitoring application, the Administrator will provide:
- (i) Notice of the information and findings upon which the intended disapproval is based; and
  - (ii) Notice of opportunity for the owner or operator to present additional supporting information before final action is taken on the application. This notice will specify how much additional time is allowed for the owner or operator to provide additional supporting information.
- (5) The owner or operator is responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. Neither submittal of an application, nor the Administrator's failure to approve or disapprove the application relieves the owner or operator of the responsibility to comply with any provision of this subpart.
- (6) The Administrator may decide at any time, on a case-by-case basis that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of this subpart.
- (m) The requirements under paragraph (e) of this section to conduct daily Method 22 testing shall not apply to any specific raw mill or finish mill equipped with a continuous opacity monitor COM or bag leak detection system (BLDS). If the owner or operator chooses to install a COM in lieu of conducting the daily visual emissions testing required under paragraph (e) of this section, then the COM must be installed at the outlet of the PM control device of the raw mill or finish mill, and the COM must be installed, maintained, calibrated, and operated as required by the general provisions in subpart A of this part and according to PS-1 of appendix B to part 60 of this chapter. 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. If the owner or operator chooses to install a BLDS in lieu of conducting the daily visual emissions testing required under paragraph (e) of this section, the requirements in paragraphs (m)(1) through (9) of this section apply to each BLDS:
- (1) The BLDS must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. "Certify" shall mean that the instrument manufacturer has tested the instrument on gas streams having a range of particle size distributions and confirmed by means of valid filterable PM tests that the minimum detectable concentration limit is at or below 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
  - (2) The sensor on the BLDS must provide output of relative PM emissions.
  - (3) The BLDS must have an alarm that will activate automatically when it detects a significant increase in relative PM emissions greater than a preset level.
  - (4) The presence of an alarm condition should be clearly apparent to facility operating personnel.
  - (5) For a positive-pressure fabric filter, each compartment or cell must have a bag leak detector. For a negative-pressure or induced-air fabric filter, the bag leak detector must be installed downstream of the fabric filter. If multiple bag leak detectors are required for either type of fabric filter, detectors may share the system instrumentation and alarm.
  - (6) All BLDS must be installed, operated, adjusted, and maintained so that they are based on the manufacturer's written specifications and recommendations. The EPA recommends that where appropriate, the standard operating procedures manual for each bag leak detection system include concepts from EPA's "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997).

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- (7) The baseline output of the system must be established as follows:
    - (i) Adjust the range and the averaging period of the device; and
    - (ii) Establish the alarm set points and the alarm delay time.
  - (8) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the operations and maintenance plan required by paragraph (a) of this section. In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a 1 calendar year period unless a responsible official as defined in Sec. 63.2 certifies in writing to the Administrator that the fabric filter has been inspected and found to be in good operating condition.
  - (9) The owner or operator must maintain and operate the fabric filter such that the bag leak detector alarm is not activated and alarm condition does not exist for more than 5 percent of the total operating time in a 6-month block period. Each time the alarm activates, alarm time will be counted as the actual amount of time taken by the owner or operator to initiate corrective actions. If inspection of the fabric filter demonstrates that no corrective actions are necessary, no alarm time will be counted. The owner or operator must continuously record the output from the BLDS during periods of normal operation. Normal operation does not include periods when the BLDS is being maintained or during startup, shutdown or malfunction.
- (n) A summary of the monitoring requirements of this subpart is given in Table 1 to this section.

**Table 1 to §63.1350. Monitoring Requirements.**

| <b>Affected Source/Pollutant or Opacity</b>  | <b>Monitor Type/ Operation/Process</b>                   | <b>Monitoring Requirements</b>  |
|--|--|---|
| All affected sources   | Operations and maintenance plan                          | Prepare written plan for all affected sources and control devices   |
| All kilns and in-line kiln raw mills at major sources (including alkali bypass)/opacity        | Continuous opacity monitor, if applicable                | Install, calibrate, maintain and operate in accordance with general provisions and with PS-1  |
|  | Method 9 opacity test, if applicable                     | Daily test of at least 30-minutes, while kiln is at highest load or capacity level  |
| Kilns and in-line kiln raw mills at major sources (including alkali bypass)/particulate matter | Particulate matter continuous emission monitoring system | Deferred  |
| Kilns and in-line kiln raw mills at major sources (including alkali bypass)/ D/F               | Combustion system inspection                             | Conduct annual inspection of components of combustion system  |
|  | Continuous temperature monitoring at PMCD inlet          | Install, operate, calibrate and maintain continuous temperature monitoring and recording system; calculate three-hour rolling averages; verify temperature sensor calibration at least quarterly  |
| Kilns and in-line kiln raw mills at major sources (including alkali bypass)/ D/F (continued)   | Activated carbon injection rate monitor, if applicable   | Install, operate, calibrate and maintain continuous activated carbon injection rate monitor; calculate three-hour rolling averages; verify calibration at least quarterly; install, operate, calibrate and maintain carrier gas flow rate monitor or carrier gas pressure drop monitor; calculate three-hour rolling averages; document carbon specifications |
| New greenfield kilns and in-line kiln raw mills at major sources/THC                           | Total hydrocarbon continuous emission monitor            | Install, operate, and maintain THC CEM in accordance with PS-8A; calculate 30-day block average THC concentration   |
| Clinker coolers at major sources/opacity   | Continuous opacity monitor, if applicable                | Install, calibrate, maintain and operate in accordance with general provisions and with PS-1  |

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| Affected Source/Pollutant or Opacity  | Monitor Type/ Operation/Process   | Monitoring Requirements   |
|---|---|---|
|   | Method 9 opacity test, if applicable  | Daily test of at least 30-minutes, while kiln is at highest load or capacity level.   |
| Raw mills and finish mills at major sources/opacity   | Method 22 visible emissions test (This requirement does not apply to a raw mill or finish mill equipped with a continuous opacity monitor or bag leak detection system) | Conduct daily 6-minute Method 22 visible emissions test while mill is operating at highest load or capacity level; if visible emissions are observed, initiate corrective action within one hour and conduct 30-minute Method 9 test within 24 hours                      |
|   | Continuous opacity monitoring, if applicable  | Install, operate, and maintain in accordance with general provisions and with PS-1. A six-minute average greater than 10% opacity is a violation  |
|   | Bag leak detection system, if applicable  | Install, operate and maintain in accordance with Sec. 63.1350(m). Operate and maintain such that alarm is not activated and alarm condition does not exist for more than 4% of the total operating time in a 6-month period. If alarm sounds, initiate corrective action. |
| New greenfield raw material dryers at major sources/THC   | Total hydrocarbon continuous emission monitor   | Install, operate, and maintain THC CEM in accordance with PS-8A; calculate 30-day block average THC concentration   |
| Raw material dryers; raw material, clinker, finished product storage bins; conveying system transfer points; bagging systems; and bulk loading and unloading systems at major sources/opacity | Method 22 visible emissions test  | As specified in operation and maintenance plan  |

**§ 63.1351 Compliance Dates.**

- (a) The compliance date for an owner or operator of an existing affected source subject to the provisions of this subpart is June 14, 2002.
- (b) The compliance date for an owner or operator of an affected source subject to the provisions of this subpart that commences new construction or reconstruction after March 24, 1998 is June 14, 1999 or upon startup of operations, whichever is later.

**§ 63.1352 Additional Test Methods.**

- (a) Owners or operators conducting tests to determine the rates of emission of hydrogen chloride (HCl) from kilns, in-line kiln/raw mills and associated bypass stacks at portland cement manufacturing facilities, for use in applicability determinations under §63.1340 are permitted to use Method 320 or Method 321 of appendix A of this part.
- (b) Owners or operators conducting tests to determine the rates of emission of hydrogen chloride (HCl) from kilns, in-line kiln/raw mills and associated bypass stacks at portland cement manufacturing facilities, for use in applicability determinations under §63.1340 are permitted to use Methods 26 or 26A of appendix A to part 60 of this chapter.
- (c) Owners or operators conducting tests to determine the rates of emission of specific organic HAP from raw material dryers, kilns and in-line kiln/raw mills at portland cement manufacturing facilities, for use in applicability determinations under §63.1340 of this subpart are permitted to use Method 320 of appendix A to this part, or Method 18 of appendix A to part 60 of this chapter.

**§ 63.1353 Notification Requirements.**

- (a) The notification provisions of 40 CFR part 63, subpart A that apply and those that do not apply to owners and operators of affected sources subject to this subpart are listed in Table 1 of this subpart. If any State requires a notice that contains all of the information required in a notification listed in this section, the owner or operator may send the

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Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.

- (b) Each owner or operator subject to the requirements of this subpart shall comply with the notification requirements in §63.9 as follows:
- (1) Initial notifications as required by §63.9(b) through (d). For the purposes of this subpart, a Title V or 40 CFR part 70 permit application may be used in lieu of the initial notification required under §63.9(b), provided the same information is contained in the permit application as required by §63.9(b), and the State to which the permit application has been submitted has an approved operating permit program under 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 §§63.7 and 63.9(e).
  - (3) Notification of opacity and visible emission observations required by §63.1349 in accordance with §§63.6(h)(5) and 63.9(f).
  - (4) Notification, as required by §63.9(g), of the date that the continuous emission monitor performance evaluation required by §63.8(e) of this part is scheduled to begin.
  - (5) Notification of compliance status, as required by §63.9(h).

#### § 63.1354 Reporting Requirements.

- (a) The reporting provisions of subpart A of this part that apply and those that do not apply to owners or operators of affected sources subject to this subpart are listed in Table 1 of this subpart. If any State requires a report that contains all of the information required in a report listed in this section, the owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.
- (b) The owner or operator of an affected source shall comply with the reporting requirements specified in §63.10 of the general provisions of this part 63, subpart A as follows:
- (1) As required by §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 §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349.
  - (3) As required by §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 §63.6(i) shall submit such reports by the dates specified in the written extension of compliance.
  - (4) As required by §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 §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 §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 §63.8(e). The owner or operator shall submit the report simultaneously with the results of the performance test.
  - (7) As required by §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 §63.7 and described in §63.6(d)(6) shall report the results of the continuous opacity monitoring system performance evaluation conducted



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under §63.8(e).

- (8) As required by §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 §63.10(e)(3)(vi). In addition, the summary report shall include:
  - (i) All exceedences of maximum control device inlet gas temperature limits specified in §63.1344(a) and (b);
  - (ii) All failures to calibrate thermocouples and other temperature sensors as required under §63.1350(f)(7) of this subpart; 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 §63.1344(c).
  - (iv) The results of any combustion system component inspections conducted within the reporting period as required under §63.1350(i).
  - (v) All failures to comply with any provision of the operation and maintenance plan developed in accordance with §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.

#### § 63.1355 Recordkeeping Requirements.

- (a) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §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 two years of data shall be retained on site. The remaining three years of data may be retained off 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 §63.10(b)(2) and (b)(3) of this part; and
  - (1) All documentation supporting initial notifications and notifications of compliance status under §63.9 of this part;
  - (2) All records of applicability determination, including supporting analyses; and
  - (3) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements.
- (c) In addition to the recordkeeping requirements in paragraph (b) of this section, the owner or operator of an affected source equipped with a continuous monitoring system shall maintain all records required by §63.10(c).

#### § 63.1356 Exemption from New Source Performance Standards.

- (a) Except as provided in paragraphs (a)(1) and (a)(2) of this section, any affected source subject to the provisions of this subpart is exempted from any otherwise applicable new source performance standard contained in subpart F or subpart OOO of part 60 of this chapter.
  - (1) Reserved
  - (2) Reserved
- (b) The requirements of subpart Y of part 60 of this chapter, “Standards of Performance for Coal Preparation Plants”, do not apply to conveying system transfer points used to convey coal from the mill to the kiln that are associated with coal preparation at a portland cement plant that is a major source under this subpart.

#### § 63.1357 Temporary, Conditioned Exemption from Particulate Matter and Opacity Standards.

- (a) Subject to the limitations of paragraphs (b) through (f) of this section, an owner or operator conducting PM CEMS



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correlation tests (that is, correlation with manual stack methods) is exempt from:

- (1) Any particulate matter and opacity standards of part 60 or part 63 of this chapter that are applicable to cement kilns and in-line kiln/raw mills.
  - (2) Any permit or other emissions or operating parameter or other limitation on workplace practices that are applicable to cement kilns and in-line kiln raw mills to ensure compliance with any particulate matter and opacity standards of this part or part 60 of this chapter.
- (b) The owner or operator must develop a PM CEMS correlation test plan. The plan must be submitted to the Administrator for approval at least 90 days before the correlation test is scheduled to be conducted. The plan must include:
- (1) The number of test conditions and the number of runs for each test condition;
  - (2) The target particulate matter emission level for each test condition;
  - (3) How the operation of the affected source will be modified to attain the desired particulate matter emission rate; and
  - (4) The anticipated normal particulate matter emission level.
- (c) The Administrator will review and approve or disapprove the correlation test plan in accordance with §63.7(c)(3)(i) and (iii). If the Administrator fails to approve or disapprove the correlation test plan within the time period specified in §63.7(c)(3)(iii), the plan shall be considered approved, unless the Administrator has requested additional information.
- (d) The stack sampling team must be on-site and prepared to perform correlation testing no later than 24 hours after operations are modified to attain the desired particulate matter emissions concentrations, unless the correlation test plan documents that a longer period is appropriate.
- (e) The PM and opacity standards and associated operating limits and conditions will not be waived for more than 96 hours, in the aggregate, for the purposes of conducting tests to correlate PM CEMS with manual method test results, including all runs and conditions, except as described in this paragraph. Where additional time is required to correlate a PM CEMS device, a source may petition the Administrator for an extension of the 96-hour aggregate waiver of compliance with the PM and opacity standards. An extension of the 96-hour aggregate waiver is renewable at the discretion of the Administrator.
- (f) The owner or operator must return the affected source to operating conditions indicative of compliance with the applicable particulate matter and opacity standards as soon as possible after correlation testing is completed.

**§ 63.1358 Implementation and Enforcement.**

- (a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or Tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.
- (c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.
  - (1) Approval of alternatives to the requirements in Sec. Sec. 63.1340, 63.1342 through 63.1348, and 63.1351.
  - (2) Approval of major alternatives to test methods under Sec. 63.7(e)(2)(ii) and (f), as defined in Sec. 63.90, and as required in this subpart.
  - (3) Approval of major alternatives to monitoring under Sec. 63.8(f), as defined in Sec. 63.90, and as required in this subpart.
  - (4) Approval of major alternatives to recordkeeping and reporting under Sec. 63.10(f), as defined in Sec. 63.90, and as required in this subpart.

**§ 63.1359 [Reserved]**

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Table LLL-1. Applicability of NESHAP Subpart A Provisions to Affected NESHAP Subpart LLL Units

| <b>Citation</b>      | <b>Requirement</b>                       | <b>Applies?</b> | <b>Explanation</b>                        |
|----------------------|--|-----------------|---|
| 63.1(a)(1)–(4)       | Applicability                            | Yes             |   |
| 63.1(a)(5)           |  | No              | [Reserved]                                |
| 63.1(a)(6)–(8)       | Applicability                            | Yes             |   |
| 63.1(a)(9)           |  | No              | [Reserved]                                |
| 63.1(a)(10)–(14)     | Applicability                            | Yes             |   |
| 63.1(b)(1)           | Initial Applicability Determination      | No              | § 63.1340 specifies applicability.        |
| 63.1(b)(2)–(3)       | Initial Applicability Determination      | Yes             |   |
| 63.1(c)(1)           | Applicability After Standard Established | Yes             |   |
| 63.1(c)(2)           | Permit Requirements                      | Yes             | Area sources must obtain Title V permits. |
| 63.1(c)(3)           |  | No              | [Reserved]                                |
| 63.1(c)(4)–(5)       | Extensions, Notifications                | Yes             |   |
| 63.1(d)              |  | No              | [Reserved]                                |
| 63.1(e)              | Applicability of Permit Program          | Yes             |   |
| 63.2                 | Definitions                              | Yes             | Additional definitions in § 63.1341.      |
| 63.3(a)–(c)          | Units and Abbreviations                  | Yes             |   |
| 63.4(a)(1)–(3)       | Prohibited Activities                    | Yes             |   |
| 63.4(a)(4)           |  | No              | [Reserved]                                |
| 63.4(a)(5)           | Compliance date                          | Yes             |   |
| 63.4(b)–(c)          | Circumvention, Severability              | Yes             |   |
| 63.5(a)(1)–(2)       | Construction/Reconstruction              | Yes             |   |
| 63.5(b)(1)           | Compliance Dates                         | Yes             |   |
| 63.5(b)(2)           |  | No              | [Reserved]                                |
| 63.5(b)(3)–(6)       | Construction Approval, Applicability     | Yes             |   |
| 63.5(c)              |  | No              | [Reserved]                                |
| 63.5(d)(1)–(4)       | Approval of Construction/Reconstruction  | Yes             |   |
| 63.5(e)              | Approval of Construction/Reconstruction  | Yes             |   |
| 63.5(f)(1)–(2)       | Approval of Construction/Reconstruction  | Yes             |   |
| 63.6(a)              | Compliance for Standards and Maintenance | Yes             |   |
| 63.6(b)(1)–(5)       | Compliance Dates                         | Yes             |   |
| 63.6(b)(6)           |  | No              | [Reserved]                                |
| 63.6(b)(7)           | Compliance Dates                         | Yes             |   |
| 63.6(c)(1)–(2)       | Compliance Dates                         | Yes             |   |
| 63.6(c)(3)–(4)       |  | No              | [Reserved]                                |
| 63.6(c)(5)           | Compliance Dates                         | Yes             |   |
| 63.6(d)              |  | No              | [Reserved]                                |
| 63.6(e)(1)–(2)       | Operation & Maintenance                  | Yes             |   |
| 63.6(e)(3)           | Startup, Shutdown Malfunction Plan       | Yes             |   |
| 63.6(f)(1)–(3)       | Compliance with Emission Standards       | Yes             |   |
| 63.6(g)(1)–(3)       | Alternative Standard                     | Yes             |   |
| 63.6(h)(1)–(2)       | Opacity/VE Standards                     | Yes             |   |
| 63.6(h)(3)           | Opacity/VE Standards                     | No              | [Reserved]                                |
| 63.6(h)(4)–(h)(5)(i) | Opacity/VE Standards                     | Yes             |   |
| 63.6(h)(5)(ii)–(iv)  | Opacity/VE Standards                     | No              | Test duration specified in subpart LLL.   |
| 63.6(h)(6)           | Opacity/VE Standards                     | Yes             |   |
| 63.6(h)(7)           | Opacity/VE Standards                     | Yes             |   |
| 63.6(i)(1)–(14)      | Extension of Compliance                  | Yes             |   |
| 63.6(i)(15)          |  | No              | [Reserved]                                |
| 63.6(i)(16)          | Extension of Compliance                  |                 | Yes                                       |
| 63.6(j)              | Exemption from Compliance                | Yes             |   |
| 63.7(a)(1)–(3)       | Performance Testing Requirements         | Yes             | § 63.1349 has specific requirements.      |
| 63.7(b)              | Notification                             | Yes             |   |

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| Citation          | Requirement   | Applies? | Explanation  |
|-------------------|---|----------|--|
| 63.7(c)           | Quality Assurance/Test Plan                         | Yes      |  |
| 63.7(d)           | Testing Facilities                                  | Yes      |  |
| 63.7(e)(1)–(4)    | Conduct of Tests                                    | Yes      |  |
| 63.7(f)           | Alternative Test Method                             | Yes      |  |
| 63.7(g)           | Data Analysis                                       | Yes      |  |
| 63.7(h)           | Waiver of Tests                                     | Yes      |  |
| 63.8(a)(1)        | Monitoring Requirements                             | Yes      |  |
| 63.8(a)(2)        | Monitoring  | No       | § 63.1350 includes CEMS requirements.  |
| 63.8(a)(3)        | Monitoring  | No       | [Reserved]   |
| 63.8(a)(4)        | Monitoring  | No       | Flares not applicable.   |
| 63.8(b)(1)–(3)    | Conduct of Monitoring                               | Yes      |  |
| 63.8(c)(1)–(8)    | CMS Operation/Maintenance                           | Yes      | PS supersedes requirements for THC CEMS. Temperature and activated carbon injection monitoring data reduction requirements given in Subpart LLL. |
| 63.8(d)           | Quality Control                                     | Yes      |  |
| 63.8(e)           | Performance Evaluation for CMS                      | Yes      | PS supersedes requirements for THC CEMS.   |
| 63.8(f)(1)–(5)    | Alternative Monitoring Method                       | Yes      | Additional requirements in § 63.1350(l).   |
| 63.8(f)(6)        | Alternative to RATA Test                            | Yes      |  |
| 63.8(g)           | Data Reduction                                      | Yes      |  |
| 63.9(a)           | Notification Requirements                           | Yes      |  |
| 63.9(b)(1)–(5)    | Initial Notifications                               | Yes      |  |
| 63.9(c)           | Request for Compliance Extension                    | Yes      |  |
| 63.9(d)           | New Source Notification for Special Compliance Req. | Yes      |  |
| 63.9(e)           | Notification of Performance Test                    | Yes      |  |
| 63.9(f)           | Notification of VE/Opacity Test                     | Yes      | Notification not required under § 63.1350(e) and (j).  |
| 63.9(g)           | Additional CMS Notifications                        | Yes      |  |
| 63.9(h)(1)–(3)    | Notification of Compliance Status                   | Yes      |  |
| 63.9(h)(4)        |   | No       | [Reserved]   |
| 63.9(h)(5)–(6)    | Notification of Compliance Status                   | Yes      |  |
| 63.9(i)           | Adjustment of Deadlines                             | Yes      |  |
| 63.9(j)           | Change in Previous Information                      | Yes      |  |
| 63.10(a)          | Recordkeeping/Reporting                             | Yes      |  |
| 63.10(b)          | General Requirements                                | Yes      |  |
| 63.10(c)(1)       | Additional CMS Recordkeeping                        | Yes      | PS–8A supersedes requirements for THC CEMS.  |
| 63.10(c)(2)–(4)   |   | No       | [Reserved]   |
| 63.10(c)(5)–(8)   | Additional CMS Recordkeeping                        | Yes      | PS–8A supersedes requirements for THC CEMS.  |
| 63.10(c)(9)       |   | No       | [Reserved]   |
| 63.10(c)(10)–(15) | Additional CMS Recordkeeping                        | Yes      | PS–8A supersedes requirements for THC CEMS.  |
| 63.10(d)(1)       | General Reporting Requirements                      | Yes      |  |
| 63.10(d)(2)       | Performance Test Results                            | Yes      |  |
| 63.10(d)(3)       | Opacity or VE Observations                          | Yes      |  |
| 63.10(d)(4)       | Progress Reports                                    | Yes      |  |
| 63.10(d)(5)       | Startup, Shutdown, Malfunction Reports              | Yes      |  |
| 63.10(e)(1)–(2)   | Additional CMS Reports                              | Yes      |  |
| 63.10(e)(3)       | Excess Emissions and CMS Performance Reports        | Yes      | Exceedances are defined in subpart LLL.  |
| 63.10(f)          | Waiver for Recordkeeping/Reporting                  | Yes      |  |
| 63.11(a)–(b)      | Control Device Requirements                         | No       | Flares not applicable.   |
| 63.12(a)–(c)      | State Authority and Delegations                     | Yes      |  |
| 63.13(a)–(c)      | State/Regional Addresses                            | Yes      |  |
| 63.14(a)–(b)      | Incorporation by Reference                          | Yes      |  |
| 63.15(a)–(b)      | Availability of Information                         | Yes      |  |

SECTION IV. APPENDIX OOO

NSPS SUBPART OOO – NONMETALLIC MINERAL PROCESSING PLANTS

The provisions of this subsection apply to the following emissions unit.

| ID  | Emission Unit Description  |
|-----|--|
| 001 | (CH-1) - Primary Crushing, and Associated Conveyors. Includes front end loaders to primary crusher, primary crusher operation, base rock and limestone conveyors to base rock storage pile and limestone storage building. |

1. **NSPS Subpart A:** The affected emissions units are subject to the applicable General Provisions in NSPS Subpart A of 40 CFR 60, as adopted by Rule 62-204.800(8), F.A.C. [40 CFR 60, Subpart A]
2. **NSPS Subpart OOO:** The affected emissions units are subject to the applicable requirements for Nonmetallic Mineral Processing Plants specified in NSPS Subpart OOO of 40 CFR 60, as adopted by Rule 62-204.800(8), F.A.C. [40 CFR 60, Subpart OOO]

*{Permitting Note: Numbering of the original NSPS rules in the following conditions has been preserved for ease of reference with the rules. Paragraphs that are not applicable have been omitted for clarity and brevity. When used in 40 CFR 60, the term "Administrator" shall mean the Secretary or the Secretary's designee.}*

**§ 60.670 Applicability and Designation of Affected Facility.**

- (a) (1) The provisions of 40 CFR 60 Subpart OOO are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each belt conveyor or crusher.

**§ 60.671 Definitions.**

*Belt conveyor* means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

*Crusher* means a machine used to crush any nonmetallic materials, and includes, but is not limited to, the following types: jaw, gyratory, cone roll, rod mill, hammermill, and impactor.

**§ 60.672 Standard for Particulate Matter.**

- (b) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40 CFR 60.11, no owner or operator shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraph (c) and (d) of this section.
- (c) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40 CFR 60.11, no owner or operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.
- (d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

**§ 60.675 Test Methods and Procedures.**

- (a) In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60 Appendix A or other methods and procedures as specified in this section, except as provided in 40 CFR 60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.
- (c) (1) In determining compliance with the particulate matter standards in 40 CFR 60.672 (b) and (c), the owner or operator shall use Method 9 and the procedures in 40 CFR 60.11, with the following additions:
  - (i) The minimum distance between the observer and the emissions source shall be 4.57 meters (15 feet).
  - (ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emissions units (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.
  - (iii) For affected emissions units using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and

## SECTION IV. APPENDIX OOO

### NSPS SUBPART OOO – NONMETALLIC MINERAL PROCESSING PLANTS

is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

- (3) When determining compliance with the fugitive emissions standard for any affected facility described under Section 60.672(b) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:
  - (i) There are no individual readings greater than 10 percent opacity; and
  - (ii) There are no more than 3 readings of 10 percent for the 1-hour period.
- (4) When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under Section 60.672(c) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:
  - (i) There are no individual readings greater than 15 percent opacity; and
  - (ii) There are no more than 3 readings of 15 percent for the 1-hour period.
- (e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:
  - (1) For the method and procedure of 40 CFR 60.675(c), if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:
    - (i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.
    - (ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.
- (g) If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operation problems, etc.) in conducting any rescheduled performance test required in this section, the owner or operator of an affected facility shall submit a notice to the Administrator at least 7 days prior to any rescheduled performance test.

#### § 60.676 Reporting and Recordkeeping.

- (f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 CFR 60.672, including reports of opacity observations made using Method 9 to demonstrate compliance with 40 CFR 60.672(b) and (c).
- (h) The Subpart A requirement under 40 CFR 60.7(a)(2) for notification of the anticipated date of initial startup of an affected facility shall be waived for owners or operators of affected facilities regulated under this subpart.
  - (i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.
    - (1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

**SECTION IV. APPENDIX Y**  
**NSPS SUBPART Y – COAL PREPARATION PLANTS**

The specific conditions of this subsection apply to the following emissions unit.

| <b>ID No.</b> | <b>Emissions Unit Description</b>   |
|---------------|---|
| 007           | (CH-7) - Coal and Petroleum Coke Grinding System. Includes coal mill and ground coal/petroleum bins.                            |
| 008           | (CH-8) – Coal and Petroleum Coke Conveying. Includes coal/petroleum coke handling and conveying from unloading to storage bins. |

1. **NSPS Subpart A:** The affected emissions units are also subject to the applicable General Provisions in Subpart A of 40 CFR 60, as adopted by Rule 62-204.800(8), F.A.C. [40 CFR 60, Subpart A]
2. **NSPS Subpart Y:** The affected emissions units are also subject to the applicable requirements for Coal Preparation Plants specified in NSPS Subpart Y of 40 CFR 60, as adopted by Rule 62-204.800(8), F.A.C. [40 CFR 60, Subpart Y]

*{Permitting Note: Numbering of the original NSPS rules in the following conditions has been preserved for ease of reference with the rules. Paragraphs that are not applicable have been omitted for clarity and brevity. When used in 40 CFR 60, the term "Administrator" shall mean the Secretary or the Secretary's designee.}*

**§ 60.250 Applicability and Designation of Affected Facility.**

- (a) The provisions of this subpart are applicable to any of the following affected facilities in coal preparation plants which process more than 200 tons per day: thermal dryers, pneumatic coal cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), and coal storage systems.

**§ 60.251 Definitions.**

- (a) *Coal preparation plant* means any facility (excluding underground mining operations) which prepares coal by one or more of the following processes: breaking, crushing, screening, wet or dry cleaning, and thermal drying.
- (b) *Bituminous coal* means solid fossil fuel classified as bituminous coal by ASTM Designation D388-77, 90, 91, 95, or 98a (incorporated by reference; see § 60.17).
- (c) *Coal* means all solid fossil fuels classified as anthracite, bituminous, sub bituminous, or lignite by ASTM Designation D388-77, 90, 91, 95, or 98a (incorporated by reference; see § 60.17).
- (d) *Cyclonic flow* means a spiraling movement of exhaust gases within a duct or stack.
- (e) *Thermal dryer* means any facility in which the moisture content of bituminous coal is reduced by contact with a heated gas stream which is exhausted to the atmosphere.
- (f) *Pneumatic coal-cleaning equipment* means any facility which classifies bituminous coal by size or separates bituminous coal from refuse by application of air stream(s).
- (g) *Coal processing and conveying equipment* means any machinery used to reduce the size of coal or to separate coal from refuse, and the equipment used to convey coal to or remove coal and refuse from the machinery. This includes, but is not limited to, breakers, crushers, screens, and conveyor belts.
- (h) *Coal storage system* means any facility used to store coal except for open storage piles.
- (i) *Transfer and loading system* means any facility used to transfer and load coal for shipment.

**§ 60.252 Standards for Particulate Matter.**

- (a) On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, an owner or operator shall not cause to be discharged into the atmosphere from any thermal dryer gases which:
  - (1) Contain particulate matter in excess of 0.070 g/dscm (0.031 gr/dscf).
  - (2) Exhibit 20 percent opacity or greater.
- (c) On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, an owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment or coal storage system, gases which exhibit 20 percent opacity or greater. [40 CFR 60.252(a) and (c)]

**§ 60.253 Monitoring of Operations.**

**SECTION IV. APPENDIX Y**  
**NSPS SUBPART Y – COAL PREPARATION PLANTS**

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- (a) The owner or operator of any thermal dryer shall install, calibrate, maintain, and continuously operate monitoring devices as follows:
  - (1) A monitoring device for the measurement of the temperature of the gas stream at the exit of the thermal dryer on a continuous basis. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 3^{\circ}$  Fahrenheit.
- (b) All monitoring devices under paragraph (a) of this section are to be recalibrated annually in accordance with procedures under 40 CFR 60.13(b). [40 CFR 60.253(a) and (b)]

**§ 60.254 Test Methods and Procedures.**

- (a) In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in 40 CFR 60.8(b).
- (b) The owner or operator shall determine compliance with the particular matter standards in 40 CFR 60.252 as follows:
  - (1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). Sampling shall begin no less than 30 minutes after startup and shall terminate before shutdown procedures begin.
  - (2) Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.

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