




Memorandum

Florida Department of Environmental Protection

TO: Michael G. Cooke, Director DARM
Through: Trina L. Vielhauer, Chief BAR 
Through: A.A. Linero, P.E., Program Administrator, South Permitting Section 
From: Cindy Mulkey 
DATE: February 10, 2006
SUBJECT: Natural Resources of Central Florida, Inc. dba American Cement
Company – Sumterville Plant
DEP File No. 1190042-0001-AC, PSD-FL-361

Attached is the Final Permit for American Cement Company (ACC) authorizing the construction of a nominal 1,150,000 tons per year 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 project will be located east of Sumterville and north of County Road 470 in Sumter County.

The ACC Plant will be subject to the maximum achievable control technology (MACT) requirements in 40CFR63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants for Portland Cement Manufacturing Industry. In addition, the plant will be subject to the Department's determination of best available control technology (BACT). The BACT determinations for the PH/C kiln, in-line calciner, and clinker cooler are: 1.95 pounds of NO_x per ton of clinker (lb/ton); 0.20 lb SO₂/ton, 2.9 lb CO/ton, 0.12 lb VOC/ton; and 0.153 lb PM/PM₁₀/ton. The BACT determinations are among the lowest emission limitations among recent determinations in the state and the country.

Mercury (Hg) emissions will be limited to 122 pounds per year. Initially, compliance will be conservatively estimated based on the concentration of Hg in the fuels and raw materials entering the process. The Department has determined that by the second year of operation, reliable mercury continuous emission monitors (Hg-CEMS) will be available and requires that a Hg-CEMS be installed to measure actual emissions.

We issued the draft permit December 19th and a public notice was made on December 20th. Comments received from the public and those received from Koogler & Associates for ACC were discussed and are addressed in the attached Final Determination to Issue a PSD Permit. No comments were received from EPA or the Park Service.

Accordingly, I recommend your approval.

AAL/cem

Attachments

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT

In the Matter of an
Application for Permit by:

Mr. Cary O. Cohrs – General Manager
Natural Resources of Central Florida, Inc. dba
American Cement Company
P.O. Box 1209
Anthony, Florida 32617

DEP File No. 1190042-001-AC, PSD-FL-361
Sumterville Plant
Sumter County

Enclosed is the Final Permit Number 1190042-01-AC (PSD-FL-361) authorizing the construction of a nominal 1,150,000 tons per year 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 project will be located east of Sumterville and north of County Road 470 in 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

CERTIFICATE OF SERVICE

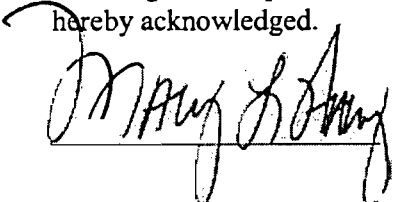
The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were sent by U.S. Mail or electronic mail before the close of business on 2/13/06 to the person(s) listed:

Cary O. Cohrs, American Cement Company*
Chair, Sumter County BCC
Gregg Worley, U.S. EPA Region 4, Atlanta GA
John Bunyak, National Park Service, Denver CO
Mara Nasca, DEP SWD
John Koogler, P.E., Koogler & Associates.
Joe Horton, SCC
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
Karen J. Ross
Joan L. Runyon
Lenore Smiley
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.


2/13/06
(Date)

FINAL DETERMINATION

Natural Resources of Central Florida dba

American Cement Company

Sumterville Plant

DEP File No. 1190042-001-AC (PSD-FL-361)

On December 19, 2005 the Florida Department of Environmental Protection (Department) distributed an "Intent to Issue Air Construction Permit" to construct a nominal 1,150,000 tons per year greenfield portland cement plant with a dry process preheater/calculator kiln, in-line raw mill, clinker cooler and associated materials handling, storage, conveyance and shipping facilities. The project will be located east of Sumterville and north of County Road 470 in 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. American Cement Company (ACC) published the Public Notice in the *Daily Commercial* on December 20, 2005 and provided to the Department the required proof of publication. The Public Notice provided a period of 30 days (through January 18, 2006) during which the Department can consider comments received.

The Department received numerous "form" type letters from the public throughout the comment period including comments regarding the Draft Air Construction Permit and one late request for a public meeting. Written comments were received from an independent consulting group, Fletcher Group Engineering and Environmental Solutions, on January 17. The Department received comments from Koogler & Associates, representing the applicant, on January 20 (beyond the comment deadline of January 18).

All comments are 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. Most of the 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 Sumter Cement Company, Center Hill Plant (1190041-001-AC, PSD FL-358). The letter included the following requests:

- a) *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

The Department received letters during the application review period prior to distribution of the draft permit and included the mercury CEMS in the draft permit.

In response to the subsequent request received during the public comment period, 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.

- b) 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 ACC Sumterville plant will have very stringent mercury monitoring requirements. This facility is one of the first two cement plants 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 (SFMSP). 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 SFMSP is focused on the Everglades and South Florida, virtually all of its work has statewide and national application. The SFMSP website describes SFMSP 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/.

2. The Fletcher Group submitted comments for the stated purpose: *"To remain current with practice in this area (emission estimating and modeling), we occasionally review permit applications and permits to be sure that we are following the best current practices in our work"*. Comments and questions received from Fletcher Group Engineering regarding the draft permit and application are listed below with the Department's response following each issue.
- a) ***Why is there an apparent discrepancy between the modeled rate and the worst-case operating rate for the primary crusher?*** *This question arises from the process rate specification for the primary crusher on Page 6 of 29 in the proposed permit. The proposed permit allows the crusher to operate at a rate up to 750 tons per hour on a 30-day average dry basis and restricts the annual rate to no more than 1,482,000 tons during any consecutive twelve-month period. 1,482,000 tons in a twelve month period equates to an hourly rate of 169 tons per hour, assuming that the operation occurs continuously for 8,760 hours in twelve months. The modeled emission rate in the PSD modeling provided by DEP is based on emission calculations using a process rate of 154 tons per hour. Normally facilities are required to model the "worst-case" operating rate, which in this case appears to be 7590 tons per hour.*

Response

The Department appreciates the questions and comments by the Fletcher Group and considers this Final Determination as the best forum to provide them with our practices in the areas of emissions estimating and modeling as applied in the present application.

The Department agrees that the permit condition gives the impression that the plant will continuously crush 750 tons per hour (TPH). However there are numerous bottlenecks that naturally and significantly attenuate this rate including the limitations on raw material usage, daily limits on clinker production, available storage in the material storage building, etc. It is possible that the crusher will be operated at average daily rates greater than 154 TPH, particularly after periods during which the crusher is down for extended maintenance or repair.

In contrast to mining operations in many parts of the country, limestone mining at the proposed site will be a wet process. Therefore the primary crusher and the moist raw materials transfer operations contribute very little to the project's overall fugitive particulate emissions. The Department repeated the modeling using the (unrealistic) 750 ton per hour maximum value suggested by the Fletcher Group rather than the average (expected) value of 154 tons per hour. This resulted in a minute increase in the increment analysis of less than 0.1 micrograms per cubic meter.

- b) *Why does the permit appear to allow construction of proposed sources that are significantly larger in design capacity than the estimated throughput for modeling purposes? The second question is the discrepancy in design capacity of the raw material handling systems presented on the process flow diagrams in the permit application and the capacity used to calculate the emissions from raw material handling operations. Specifically, the process flow diagrams (Sheet 1) indicate a capacity of 255 tons per hour of limestone, 50 tons per hour of overburden, 50 tons per hour of ash and 8 tons per hour of iron oxide. The emissions to result from handling raw materials are found on a spreadsheet labeled "fugitive emissions calculations" and are divided into three main groups of handling activities – fugitive emissions from the raw material delivery, fugitive emissions from the conveyor transfer points, and fugitive emissions from transferring the material from storage piles.*

Based on the way the calculations were prepared, it appears that the fugitive emissions from the limestone handling process are called out as PIT, LSP1, and RSP1. The calculations for limestone are based on a capacity of 154 tons per hour. Similarly, the emissions from handling overburden are included in HOP1, LSP2, LSP3, LSP4, RSP2, RSP3, and RSP4. The capacity used for these sources sums to 42.8 tons per year. The emissions from handling ash are included in HOP2, LSP5, LSP6, RSP5, and RSP6 and the capacity used for calculation purposes is 8 tons per hour. The emissions from handling iron ore are included in HOP3, LSP7, LSP8, RSP7, and RSP8 and the capacity used is 6 tons per year. The combined raw material delivery rate used for the estimation of fugitive emissions is 210.8 tons per hour, significantly less than the expected throughput rated on Page 5, which is 280 tons per hour. Furthermore, the design capacity on the process flow diagram is 375 tons per hour.

Response

These are good observations. There are overriding bottlenecks that are of either a physical or permitted nature that limit the amount of clinker and cement manufactured at the facility on one basis or another (e.g. daily clinker production rate). Individual unit operations within the entire process can be designed in such a manner that they allow for instantaneous or short-term accelerations to maintain the authorized (and limited) daily output. These circumstances generally do not have an appreciable impact on the critical modeling for the various pollutants such as 24-hour PM/PM₁₀, annualized NO_x, etc. If the individual units were stand-alone instead of "captive" to the cement plant, it could make sense to establish limits in the manner described.

As with the primary crusher (and in contrast with operations in many parts of the country), fugitive emissions from raw material handling are inherently low, due in part to the moisture content of the materials, and also to the fact that nearly all material conveying and storage facilities are enclosed. Consequently these sources tend to have minimal impacts on the modeling results.

Although the Department is satisfied with results of the originally modeled scenario, additional modeling has been completed. All raw material emission rates for the fugitive sources identified by the Fletcher Group were doubled and run concurrently with a maximum process rate of 750 TPH for the primary crusher. This is well above the "design" operating rate referred to by the Fletcher Group and resulted in no significant increases in the increment analysis (less than 0.05 micrograms per cubic meter).

- c) ***Why are the vehicle-related fugitive emissions based on vehicle capacities that are less than the design capacity for the facility?*** *We note a discrepancy in the capacity of the vehicles used to estimate the vehicle-related emissions from the facility. For example, the calculations for fugitive emissions from gypsum and limestone trucks states the capacity of the vehicles as 25 tons/vehicle and states an hourly vehicle rate of 0.3 vehicles per hour for a delivery rate of 7.8 tons per hour. The design consumption rate stated on the process flow diagram is 255 tons/hour of limestone and the application makes it clear that limestone will not be delivered by rail car. The design consumption rate for limestone added at the grinding process for clinker on the process flow diagram is 50 tons per hour and the rate for gypsum is 10 tons per hour. Therefore, shouldn't the limestone/gypsum vehicle emissions be based on a delivery rate of approximately 315 tons per hour or, at 25 tons per vehicle, 12.6 vehicles per hour? Similarly, the vehicle rate for ash and iron oxide is 35.1 tons per hour based on a vehicle capacity of 25 tons/vehicle and an hourly rate of 1.4 vehicles per hour. The design consumption rate for ash is 50 tons per hour and for iron oxide is 8 tons per hour. This implies a vehicle rate of 2.32 vehicles an hour. The hourly rates for coal and cement are consistent with the design rates in the application, although the raw material rates for limestone, gypsum, ash and iron oxide (42.9 tons per hour) do not add to the cement truck rate of 216 tons per hour. Because the estimated vehicle rate is less than that required to deliver the raw materials to match the process design rate, we believe that the fugitive emissions of particulate matter have been underestimated.*

Response

All limestone will be supplied from the on-site quarry by way of a conveyor system. It is conceivable that at some plants highly specialized limestone could be imported and ground into the product. However, the available on-site limestone is satisfactory for both clinker production and inter-grinding with gypsum into cement product. The Department contacted the nearest cement plant to the proposed facility. Their representative confirmed that on-site limestone is used for all purposes. Therefore, the limestone consumption should not be included in the vehicle-related fugitive emission calculations.

- d) ***Why is there no proposed limitation on vehicular traffic from 8 pm to 4 am, consistent with the limitations presented in the modeling analysis?*** *We also note that the facility has not modeled vehicle traffic from the raw material importing and final product exporting using vehicles from 8 pm to 4 am. Because the nighttime hours have the greatest atmospheric stability, small fugitive sources can have a larger impact at night than during the day. We believe that the permit should contain a restriction on vehicular traffic during the hours that were not included in the modeled impact. We did note that the calculations were based on an hourly rate and the hourly rate was consistent with the proposed hours of operation provided the calculation of vehicle miles traveled discussed above does not average the total number of vehicles per day divided by 24 hours per day. The calculations present an hourly vehicle rate, which we take to be the maximum number of vehicles that will be on the site each hour. If the hourly rate was calculated by dividing the*

total vehicles per day by 24, then the hourly rate is understated and should be recalculated for 16 hours per day.

Because the refined modeling (ISC3) shows the PM₁₀ 24-hour consuming 98% of the allowable increment, it seems important to assure that all the sources of particulate matter are modeled using emission estimates consistent with the worst-case rate or issue a permit with an hourly limit consistent with the modeled rate. Allowing construction of the crusher at a capacity nearly five times the modeled rates and fugitive emissions from vehicular traffic at operational rates significantly less than required to meet the design rates seems like an invitation to violate the incremental increase limitation and potentially cause degradation of the ambient air quality.

Response

The Department did not consider it necessary to impose a prohibition on night-time delivery/shipping vehicle traffic even though the applicant stated that none is expected. The applicant did include all such traffic expected during a 24-hour day and assumed it will occur within the 16 hours between 4 a.m. and 8 p.m. If significant traffic actually occurs at night, then the atmospheric dispersive conditions for night-time hours are under-represented and those of the day-time hours are over-represented.

The Department discussed traffic expectations with the applicant and with a nearby cement plant operator. The typical scenario is as follows. Cement trucks enter and leave the facilities between 4 a.m. and 8 p.m. Shipping Departments shut down during the remaining hours. Support of this function would likely require overtime and be considered unusual. Nevertheless, it is possible that a special "pour" can be required such as to support a repair of a bridge, completion of a stadium, plugging of a sink hole, hurricane-related repairs, etc. that can require some night-time shipping.

Occasionally, there are drivers that may have suffered delays caused by flat tires. There may be a need to accept a shipment of ammonia for the air pollution control system, etc. Fly ash deliveries are indeed accepted at night, but again, not at the rate of day-time hours.

The Department and the applicant separately conducted some additional analyses based on 5 and then 10 percent (%) of all daily truck traffic occurring between 8 p.m. and 4 a.m. At the lower rate, no "second-highest" values (the regulated criterion) were predicted to exceed allowable Class II particulate increment. In the 10% case, one occurrence was modeled during all of the dates in a 5-year period. The exact reason for this occurrence has not been determined. However the probability of the meteorological conditions associated with the single date occurring simultaneously with the higher night-time traffic makes the single projected event even less likely than once in five years.

For reference, the accepted modeling techniques for these circumstances do not take into sufficient consideration the dispersive effect of turbulence induced by the truck traffic as it generates emissions. The assumptions of extreme stability and near-zero wind speed can overestimate concentrations (e.g. near-zero division). There are certain remedies that can appear to ameliorate impacts including curving of the road. However, the extra road length actually causes greater emissions though better modeled dispersion. Also the modeled concentrations affect a highly localized zone based on a fine 25 meter modeling grid and do not reflect a decline in regional air quality.

A video of a cement truck leaving a new facility in Florida can be reviewed at the following web link under clinker scale and wheel wash video".

www.dep.state.fl.us/Air/permitting/construction/suwannee.htm

The road is fully paved and maintained in a very clean state by the reasonable precautions required in the permit to control fugitive particulate matter. The Department has reasonable

assurance that there will be no violation of Class II particulate increment and concludes that it is not necessary to impose the traffic restriction.

- e) ***Why aren't there additional discrete receptors placed on the eastern and western boundaries of the facility at locations closer to the proposed sources than the placement of the discrete receptors provided by the applicant?*** We also reviewed the receptor grid arrangement to see if it complies with the guidance information on PSD modeling provided by US EPA. The files that were reviewed were the PMxx.out and PMxx.FG.out where the xx stands for years 1987 through 1991. The revised or second round of modeling for particulate matter shows an increment consumption of more than 98% yet the grid does not appear to comply with the PSD modeling requirements. Specifically, the files named PMxx.out only have discrete receptor grids for the property boundary and do not contain any additional discrete receptors outside the property. The files names PMxxFG.out purport to include "fine grid" locations. The concern is that the "fine grid" only occurs for the quadrant from Easting 399909 to Easting 400409 and Northing 3180866 to Northing 3181366. This area is to the southeast of the southern-most proposed facility boundary. This fine grid meets one criteria of PSD modeling, which is to extend more than 1,000 meters beyond the property boundary.

Because the proposed facility is centered near Northing 3181900, a more concentrated set of discrete receptors along the three close-in boundaries (west, south and east) would have been more appropriate for a facility proposing increment consumption so close to the increment consumption limits. Presumably, the fine grid selected is based on some knowledge of "local" meteorology; however, the PSD modeling guidelines are clear that all directions from a source are to be considered. As it is, there are discrete locations outside the property boundary considerably closer to the sources than the "fine grid" proposed by the applicant. Furthermore, the 24-hour impact can vary significantly between adjacent receptors due to variations in wind speed and direction. The area to the southeast of the facility is also potentially likely to have high concentrations and we think additional more densely spaced receptors along the eastern boundary are necessary to adequately assess the off-site impact from the facility. Examination of the property boundary impact values reveals that impact values of similar magnitude were predicted for receptors located between Northing locations 3181700 and 3182000 at the Easting property boundary of 400323. This suggests that more densely spaced receptors in the vicinity may also result in some higher off-site impacts than predicted by the fine grid selected.

Response

The applicant conducted modeling using a grid centered in the area of high value receptors and in accordance with a pre-approved modeling protocol. Receptors were included along the property line with 25 meter spacing at the locations where the highest impacts were seen. To further ensure that the project will not violate the increment, the Department conducted additional modeling with added receptors within and beyond the original grid submitted by the applicant. Receptors were added in locations beside the highest modeled concentrations on all sides of the property, beyond the original receptor grid, and in between receptors along the fence line. In fact, the highest modeled concentration included in the Draft Permit and Public Notice was found on one of these "added" receptors located on the property line within the original grid submitted by the applicant.

- f) ***Why weren't discrete Cartesian receptors specified in a ring surrounding the source at distances comparable to the boundaries and interior of the Class I area of concern?*** Because the proposed facility has the potential to impact the Chassahowitzka National Wildlife Refuge, CALPUFF was run by the applicant to determine whether the estimated impact from particulate matter impact was acceptable. The modeling files indicate that CALPUFF was run in the "screening" mode, where the pre-processor for ISC is used to prepare the meteorology files. The guidance document for using CALPUFF to assess the impact of proposed sources on Class I

areas prepared by the Interagency Workgroup on Air Quality Modeling (EPA-454/R-98-019) specifies that CALPUFF may be using in a screening mode using the meteorology data from ISC. The guidance document is very clear that screening analysis must include a ring of receptor placed at distances that pass within the Class I area of concern. The reasoning for this is given in the guidance document and is due to the simplifications created to local wind profiles resulting from use of the ISC meteorological data. CALPUFF is designed to use data from multiple stations and information concerning fluctuations within the layers of wind that create irregular wind profiles. When full meteorological data is not used, a complete ring of receptors located at distances approximating the Class I area boundaries and interior are required to assure that locations where elevated concentrations may occur are identified. The CALPUFF model provided with the application only has receptors at 1,000 m spacing located within boundaries of the Chassahowitzka National Wildlife Refuge.

The guidance document states the following (Table 1. Outline of recommendations for screening analysis, p 8) "Receptors at least every two degrees on rings that encircle source and pass through the Class I areas of interest." Under section 2.3.1, Screening Procedures Uncertainties (p16). "Anticipating that most analysis will involve a moderate to tall stack, of order 35 m to 200 m in height, it is seen that the screening estimates of sulfur-dioxide and sulfate concentration maxima obtained using ISC meteorology, typically range within plus/minus 70% of that simulated using CALMET meteorology.... This suggests that the screening analysis as proposed is not providing a biased (overestimate) of these impacts. It was for this reason that IWAQM recommended that all receptors on the ring be included in the screening assessment."

Based on our review of the CALPUFF receptors used to assess the impact on Chassahowitzka National Wildlife Refuge, we think receptor locations consistent with the guidance document should have been used rather than the discrete, Cartesian grid that was used. We acknowledge that the applicant downloaded the discrete receptors from the National Park Service website, which provides a list of recommended receptors for this Class I area. However, we believe the intent of the guidance document is to use a ring of receptors with the screening model and to use the recommended discrete receptors with a refined model run. A refined model run requires the applicant to utilize an adequate number of sets of weather station data, mixing height data, and humidity data to create a wind profile required for a robust CALPUFF model. We believe utilizing the refined CALPUFF model is unnecessary if the applicant follows the screening procedures as described in the guidance and has a proposed impact of less than that required by the Federal Land Manager.

Response

Upon receipt of the application, the Federal Land Manager (FLM) is forwarded a brief summary of the project, all modeling files, and a copy of the supporting PSD Report. The Department ensures that all aspects of the analysis are complete and that the FLM is aware of any specific concerns the Department may have. However, the Department relies on the FLM for guidance to verify all parameters, and meteorology used in the CALPUFF modeling. Had the modeling submitted by the consultant given the FLM any reason for concern that the project might have an adverse impact on the Chassahowitzka, the Department would have received comments identifying those concerns and would have required that they be addressed by the applicant.

3. Koogler & Associates submitted several comments and recommendations after the 30-day comment period regarding various sections of the draft permit, all of which are listed below.
 - a) Section III.C ,Specific Condition 13: The table listing the emission limits should read for the PM/PM10 limit 0.17/0.153 lb/ton of clinker and 21.3/19.13 lb/hr. This will clarify the PM limit should it ever become an issue.

Response

The comment was received after the end of the 30-day comment period. Additionally, the Department concluded then and now that the values reflect BACT and the Department has reasonable assurance that the applicant will comply with the drafted emission limits. The values in the referenced table in Section III.C, condition 13 are correct. These values are consistent with the public notice and were discussed with the applicant prior to issuance of the draft permit. The Department will not make the requested changes.

- b) *Section III. C, Specific Condition 19: The second sentence of this Condition should read: For purposes of this Condition, significant means any of the following: a physical or chemical change in the feed or fuel outside the normal range of monitored parameters;... This language, which has been incorporated into other permits recently issued by the Department, recognizes that there is a normal range of variability in the physical and chemical characteristics of feed and fuel.*

Response

The comment was received after the end of the 30-day comment period. The recommended language has appeared in some recent permits. However, it is the direction of the Department to eliminate the underlined addition from future permitting actions. The recommended change to Section III.C, Condition 19 will not be made.

- c) *Section III.C, Specific Condition 21a: The following should be incorporated into this Condition to clarify the frequency of mercury analyses. The following language is consistent with language incorporated into other permits recently issued by the Department.*

To determine the mercury content of the feed material and fuels to be used in the monthly calculations, sampling and analysis shall be performed in accordance with the following schedule.

- i. During the first quarter of plant operation, sample each month and analyze each month's composite sample.*
- ii. After the first quarter, sample for one month of each quarter and analyze that month's composite sample.*

Response

The additional language recommended by Koogler suggests that sampling and analysis of feed materials and fuels is required only once per month. It is the intent of the Department to require daily sampling of feed materials and fuels. Each monthly composite sample, composed of all daily samples during the month, must be analyzed. Results from the monthly composite samples will then be used to calculate the monthly mercury emissions. This is consistent with the most recent permit issued by the Department. The recommended changes will not be made.

- d) *Koogler recommended Section III.C, Specific Condition 25 be changed as follows: The final paragraph of this condition reads: The permittee shall notify the Compliance Authority within one working day of discovering any emission in excess of a CEM standard subject to a specified averaging period.... [Emphasis added.] It is presumed that the emphasized language in this Condition means, for example, if there is a CEM standard with a 30-day rolling averaging period, emissions in excess of the 30-day rolling average are to be reported. With the Condition stating "...any emissions in excess...". It could be interpreted that a one-hour or a 24-hour exceedance of a 30-day rolling average standard would have to be reported. Hopefully this is not the case.*

Response

The language of Section III.C, Condition 25 refers to exceedances of a standard only for the averaging period indicated for that particular standard. A one-hour reading above a limit with a 24-hr or 30-day averaging period is not considered an exceedance of that limit.

- e) *Section III.C, Specific Condition 26: The third paragraph in this Condition states: the required RATA tests shall be performed using EPA Method 10 in Appendix A in 40 CFR 60 and shall be based on a continuous sampling train. [Emphasis added.] It appears that the underlined portion of this sentence is extraneous and should be removed. There is no continuous sampling train associated with EPA Method 10; it is an instrumental method.*

Response

The Department agrees that this is an instrumental method. However, the language refers to the extraction of the sample prior to entering the CO monitor. A continuous sample is required as opposed to an integrated sample (which is also described by the method). The requested change will not be made.

- f) *Section III.E, Specific Condition 8: This Condition states that "Each emission point" shall be tested to demonstrate initial compliance. Please clarify that only the finish mill air separator (Emission Point N93) is subject to compliance testing using EPA Method 5. It is recognized that both emission points in this emission unit (the finish mill air separator, N93 and the finish mill N94) are subject to the visible emission standard (EPA Method 9).*

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. Although the comment was received after the 30-day comment period, the commenter has identified language that has been clarified in another very recently issued permit. The Department will make the following changes to Section III.E, Condition 8 for clarification:

8. **Testing Requirements:** ~~Each e~~ Emission point N93 shall be tested to demonstrate initial compliance with the applicable standards for PM/PM₁₀, and visible emissions. All other emission points shall be tested for visible emissions only. The tests shall be conducted within 60 days after achieving a daily average clinker production rate of 125 tons per hour, 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 1st to September 30th). Compliance with the particulate matter standard shall be demonstrated during the 12 month period prior to each renewal of the operation permit. [Rule 62-297.310(7) (a), F.A.C.]
- g) *Section III.G, Specific Condition: The hourly coal mill grinding rate for coal/petroleum coke of 18.5 tons per hour is okay. The annual usage rate should be increased from 134,904 tons of coal/petroleum coke per year to 162,060 tons of coal/petroleum coke per year.*

Response

The hourly coal mill grinding rate for coal/petroleum coke of 18.5 tons per hour is a peak hourly rate. The 12-month processing rate of 134,904 tons of coal/petroleum coke is consistent with the maximum annual rate submitted in the application. The recommended changes to Section III.G, Condition 6 will not be made.

- h) *Section III.G, Specific Condition 9: Again, it should be clarified that only the coal/petroleum coke mill including the thermal dryer (Emission Point S22) is subject to emission testing using EPA Method 5. It is recognized that both emission points S22 and S26 are subject to the visible emission standard (EPA Method 9).*

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. Although the comment was received after the 30-day comment period, the commenter has identified language that has been clarified in another very recently issued permit. The Department will make the following changes to Section III.G, Condition 9 for clarification:

10. Testing Requirements: ~~Each~~ Emission point S22 shall be stack tested to demonstrate initial compliance with the applicable emission standards for PM/PM₁₀ 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/PM₁₀) 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 1st to September 30th).
[Rule 62-297.310(7)(a), F.A.C.]

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:

Natural Resources of Central Florida
dba American Cement Company
Post Office Box 1209
Anthony, Florida 32617

Authorized Representative:

Cary O. Cohrs, General Manager

DEP File No. 1190042-001-AC
Air Permit No. PSD-FL-361
Sumterville Cement Plant
Expiration date: June 30, 2009

PROJECT AND LOCATION

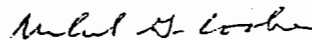
This permit authorizes the construction of a nominal 1,150,000 tons per year greenfield portland cement plant with a dry process preheater/calcliner kiln, in-line raw mill, clinker cooler and associated materials handling, storage, conveyance and shipping facilities. The project will be located east of Sumterville and north of County Road 470 in 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, Director
Division of Air Resources Management

Effective Date: 2/13/06

"More Protection, Less Process"

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SECTION I. GENERAL INFORMATION

FACILITY DESCRIPTION

The proposed facility will be a nominal 1,150,000 tons per year (TPY) dry process portland cement plant incorporating a dry process kiln with a preheater and calciner (PH/C). Major equipment associated with the main components of the plant will include the following:

- A materials storage building (MSB);
- A primary crusher at the quarry and belt conveyors to MSB;
- Raw material piles stored inside of the MSB. The piles will include limestone, alumina sources (e.g. bauxite, clay, and coal ash), iron sources (e.g. mill scale and iron ore), silica sources (e.g. sand), and additives (e.g. feldspar);
- Materials handling equipment including portal reclaimers, stackers, belt conveyors, conveyor from the MSB 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 and selective non-catalytic reduction (SNCR) system;
- An air heater for use when additional drying capacity is required;
- A nominal 10,000 ton blending silo;
- An indirect-firing system with a low-NO_x main kiln burner capable of burning coal, petroleum coke, fuel oil, and natural gas;
- A whole tire feeder system;
- A clinker cooler with reciprocating grates, cooling air fans, and hot air ducting to the kiln and PH/C;
- Clinker storage and grinding including a finish mill with air separator, clinker silos with metering device, limestone and gypsum piles, and associated conveyors;
- A cement transfer and storage facility including truck loadout and packhouse; and
- A nominal 18 TPH coal and petroleum coke grinding system with associated mill, storage facility, conveyors, including a fabric filter baghouse.

REGULATORY CLASSIFICATION

Title III: The Department has determined the cement plant will be a major source of hazardous air pollutants (HAPs).

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_x), particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), 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 40 CFR 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	Raw Material Quarrying, Crushing, and Storage. Includes raw material processing from quarry up to raw material storage, and additives handling from delivery to storage.
002	Raw Materials, Conveying, Storage, and Processing. From raw material and additive storage to preheater (includes conveyance of raw materials and raw meal to and from raw mill, and homogenizing silo).
003	Pyroprocessing System. Includes kiln, preheater/calcliner, raw mill, air heater, and clinker cooler.
004	Clinker and Additives Storage and Handling. Includes clinker handling from clinker cooler to clinker silo discharge, and clinker and additive handling from storage to the finish mill.
005	Finish Mill (Cement Grinding)
006	Cement Handling, Storage, Packing, and Loadout. Includes cement conveyance to silos, cement silos, loadout to trucks from silos, and cement bagging operations.
007	Coal and Petroleum Coke Grinding System. Includes coal/petroleum coke handling from railcar unloading to the pulverized fuel bin.
008	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 September 30, 2005
- Supplementary Information received on October 13, 2005
- Public Notice of Application published November 24, 2005
- Department's Technical Evaluation and Preliminary Determination dated December 16, 2005
- Department's Intent to Issue and Public Notice Package dated December 16, 2005
- Department's Final Determination and Best Available Control Technology Determination issued concurrently with this Final Permit

SECTION II. ADMINISTRATIVE REQUIREMENTS

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

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. Raw Material Quarrying, Crushing, and Storage

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

EU ID	Emission Unit Description
001	Raw Material Quarrying, Crushing, and Storage. Includes raw material processing from quarry up to raw material storage, and additives handling from delivery to storage.

Raw material quarrying, crushing, and storage contains the following emissions points.

- Primary crushing and all belt conveyor points to raw material storage.
- All conveyors and hoppers associated with additives handling and storage.

APPLICABLE STANDARDS AND REGULATIONS

1. **BACT Determinations:** A determination of the Best Available Control Technology (BACT) was made for particulate matter (PM/PM₁₀). 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 a raw materials storage building (MSB). Belt conveyors will be constructed between the crusher and the MSB. Raw material piles stored inside of the MSB will include limestone, alumina sources (e.g. bauxite, clay and coal ash), iron sources (e.g. mill scale and iron ore), silica sources (e.g. sand), and additives (e.g. feldspar). Other materials handling equipment may include portal reclaimers, stackers, hoppers, belt conveyors, a conveyor from the MSB to the raw mill, and a control system/analyzer. [Applicant Request]

PERFORMANCE REQUIREMENTS

4. **Hours of Operation:** This emissions unit system is allowed to operate 8,760 hours per year. [Applicant Request, Rule 62-210.200(PTE), F.A.C.]
5. **Process Rate Specification:** The crusher may process up to 750 tons per hour on a 30-day average (dry basis) of raw materials. No more than 1,482,000 tons (dry basis) of raw materials shall be processed during any consecutive 12 months. [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.
 - 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 OOO]
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

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Raw Material Quarrying, Crushing, and Storage

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 1st to September 30th) 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 OOO]
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, Storage, and Processing

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

EU ID	Emissions Unit Description
002	Raw Materials, Conveying, Storage, and Processing. From raw material and additive storage to preheater (includes conveyance of raw materials and raw meal to and from raw mill, and homogenizing silo).

The following emissions points in the raw materials conveying, storage, and processing system are controlled by baghouses:

Point ID	Emissions Point Description
F03	Dust collector for raw meal transfer from raw grinding mill
F10	Dust collector for raw meal transfer at air lift to homogenizing silo
G07	Dust collector for raw meal transfer to homogenizing silo
G10	Dust collector for homogenizing silo bin vent
E38	Dust collector for filter dust surge bin
H08	Dust collector for raw meal transfer from homogenizing silo

APPLICABLE STANDARDS AND REGULATIONS

1. BACT Determinations: A determination of the Best Available Control Technology (BACT) was made for, particulate matter (PM/PM₁₀). 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 conveyance, storage, and processing of raw materials. Equipment will include one homogenizing silo (nominal 10,000 ton capacity), and associated transport system. [Applicant]
4. Baghouse Controls: Each emissions point specifically identified above 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 PM₁₀ design specification of 0.007 gr/dscf. [Rule 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.]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

B. Raw Materials Conveying, Storage, and Processing

EMISSIONS AND TESTING REQUIREMENTS

6. **Emissions Limits:** The following standards apply to each emissions point of this unit including all raw material storage bins and conveying system transfer points:
- a. Visible emissions are limited to 5% opacity from each of the above listed emissions points controlled by a baghouse.
 - b. Fugitive 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 PM₁₀ emissions to 0.007 gr/dscf. The 5% opacity limitation is consistent with this design and provides reasonable assurance that annual emissions of PM/PM₁₀ for all emission points in this emission unit system will be less than 10.5 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 controlled by a baghouse and for each unenclosed transfer point shall be demonstrated during each federal fiscal year (October 1st to September 30th). [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

C. Pyroprocessing System

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

ID No.	Emissions Unit Description
003	Pyroprocessing System. Includes kiln, preheater/calcliner, raw mill, air heater, and clinker cooler.

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_x), sulfur dioxide (SO₂), volatile organic compounds (VOC), and particulate matter (PM/PM₁₀).
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/calcliner 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 indirect-fired kiln with low-NO_x main kiln burner will be capable of burning coal, petroleum coke, natural gas, used oil, and fuel oil. A tire feed mechanism with an airlock/gate system will be capable of feeding tire derived fuel (TDF) into the area just prior to the kiln exhaust. Other equipment includes an air heater for use when additional drying capacity is required, and a clinker cooler with reciprocating grates, cooling air fans, and hot air ducting to the kiln, PH/C 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 10.2 feet in diameter and no less than 350 feet tall. [Applicant request]
4. **Kiln Design:** The kiln will be designed to process approximately 208 tons per hour of dry preheater feed material (including baghouse dust recirculation) with an annual nominal throughput of 1,822,080 tons per year. However, preheater feed rate is ultimately restricted through clinker production limitations.
5. **NO_x Controls**
 - a) **Low-NO_x Burners and Indirect Firing:** The main kiln will be equipped with a low NO_x burner 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):** The kiln system will be designed such that the introduction of fuel, air and meal to the calciner will be staged or sequenced for the reduction of NO_x emissions.
 - c) **SNCR:** A selective non-catalytic reduction (SNCR) system shall be designed, constructed and operated to achieve the permitted levels for NO_x emissions from the pyroprocessing system. The SNCR system will consist of an aqueous ammonia tank, pumps, piping, compressed air delivery, injectors, control system, and other ancillary equipment. Aqueous ammonia will be injected at a location(s) in the preheater/calcliner with an appropriate temperature profile to support the SNCR process.
6. **Particulate Matter (PM/PM₁₀) Controls:** The permittee shall install a baghouse control system to remove particulate matter emissions from the pyroprocessing exhaust gas stream to achieve the PM/PM₁₀ emissions standards specified in this permit.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

C. Pyroprocessing System

7. Sulfur Dioxide Controls: The use of low-sulfur raw materials will help to keep SO₂ emissions below permitted levels.

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 shall be monitored and recorded for purposes of determining clinker production. The clinker production rate of the kiln shall not exceed 125 tons per hour (24-hour rolling average) and 1,095,000 tons during any consecutive 12 month period. The clinker production rate shall be determined using kiln feed and kiln feed loss on ignition (LOI) factors. The feed rates and kiln feed LOI 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, whole or chipped tires, natural gas, and No. 2 fuel oil and/or on-specification used oil fuel. The maximum heat input rate to the pyroprocessing system (kiln and calciner) shall not exceed 9,600 MMBtu per day (nominally 400 MMBtu/hr).
- 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 60 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.
 - 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 36 MMBtu per hour.
 - The firing of "on-specification" used oil fuel shall not exceed 1000 gallons per hour and 1,500,000 gallons during any consecutive 12 months. On-Specification Used Oil Fuel shall meet the following specifications:
 - Arsenic shall not exceed 5.0 ppm;
 - Cadmium shall not exceed 2.0 ppm;
 - Chromium shall not exceed 10.0 ppm;
 - Lead shall not exceed 100.0 ppm;
 - Total halogens shall not exceed 1000 ppm; and
 - 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.]

[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; Application No. 1210465-014-AC]

11. Prohibited Fuels and Materials: The owner or operator shall not introduce into any part of the process any of the following fuels and materials: hazardous wastes; petroleum contaminated soil or materials; off-specification used oil; 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

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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
	362.5 lb/hr			
NO _x ^a	1.95 lb/ton of clinker	30-day rolling	CEMS	BACT
	243.8 lb/hr			
PM/PM ₁₀ ^b	0.153 lb/ton of clinker	Three 1-hr runs	3-Run Test	BACT
	19.13 lb/hr			
	10 % opacity	6-minute block	COMS	
SO ₂	0.20 lb/ton of clinker	24-hr rolling	CEMS	BACT
	25.0 lb/hr			
VOC ^c	0.12 lb/ton of clinker	30-day block	CEMS	BACT
	15.0 lb/hr			
Dioxin/Furan ^d	0.20 ng/dscm (TEQ) @ 7% O ₂	Three 3-hr runs	Temperature Monitor	NESHAP LLL
	0.40 ng/dscm (TEQ) @ 7% O ₂			
THC	50 ppmvd (as propane)@ 7% O ₂	30-day block	CEMS	NESHAP LLL
Mercury ^e	122 lb/12-month period	12-month rolling	Fuel/Materials and/or CEMS	Avoid PSD

- a. For an “initial startup period” NO_x emissions shall not exceed 3.0 lb/ton of clinker (375.0 lb/hour) based on a 30-day rolling average. The “initial startup” period shall begin after initial certification of the NO_x CEMS and shall end as soon as any of the following conditions are met:
- 1) The Kiln system produces 77,500 tons of clinker or more in any 30-day rolling period.
 - 2) The Kiln system produces a total of 155,000 tons of clinker.
 - 3) 365 days calendar days elapse after initial certification of the NO_x CEMS.
- After the “initial startup” period ends, NO_x emissions shall not exceed 1.95 lb/ton of clinker (243.8 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 PM10. The BACT standard for PM is equivalent to approximately 0.09 lb 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.

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- 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 temperatures at the inlet to the particulate matter control device is 204° C (400° F) or less.
- e. Compliance shall be demonstrated using the sampling, analysis, and calculation methods specified in Condition No. 21.

{Permitting Note: In combination with the annual clinker production limitation of 1,095,000 tons per year, the above emissions standards effectively limit annual potential emissions from this unit to: 1,588 tons/year of CO; 1,068 tons/year of NO_x (after year one); 83.8 tons/year of PM/PM₁₀; 110 tons/year of SO₂; and 66 tons/year of VOC. Note that first year annual NO_x emissions could be as high as 1,643 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 SO ₂ Emissions (Instrumental).
7E	Determination of NO _x Emissions (Instrumental). NO _x 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 TDF and petroleum coke, 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 available. If a

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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 125 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, SO₂, NO_x, 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_x, and SO₂, shall be conducted during each federal fiscal year (October 1st to September 30th). 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_x, and SO₂ 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_x, SO₂, 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, and 63.1350]
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 outside the normal range of monitored parameters; 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. [Rule 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

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

- 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 and 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 and average monthly mass emissions shall be reported based on the actual data collected not later than 10 days following the end of month. Upon certification, the owner or operator may use the Hg-CEMS to demonstrate compliance with the cumulative 12-month rolling mass emission limitation (122 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. [Rules 62-4.070(3) and 62-212.400(2)(g), F.A.C.]

EXCESS EMISSIONS

{Permitting Note: The following conditions apply only to the SIP-based emissions standards specified in Condition No. 12 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 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.

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- 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. *NO_x 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. *SO₂ Data*. Each 24-hour rolling average shall include all periods of operation (including startup, shutdown, and malfunction).
- d. *Other Data*: All valid 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.]

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_x, SO₂, 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

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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.

- a. *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.
- b. *NO_x Monitor.* The NO_x 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_x monitor span values shall be set appropriately, considering the expected range of emissions and corresponding emission standards.
- c. *SO₂ Monitor.* The SO₂ 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 SO₂ monitor span values shall be set appropriately, considering the expected range of emissions and corresponding emission standards.
- d. *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).
- e. *Diluent Monitor.* An oxygen monitor shall be installed at the THC monitor location to correct measured THC emissions to the required oxygen concentration.
- f. *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_x, and SO₂) 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 125 tons per hour, but no later than 180 calendar days after initial startup, the owner or operator shall certify each 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_x, SO₂, and THC/VOC in a manner

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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 SO₂ 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_x 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 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 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.

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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. Aqueous Ammonia Injection: A monitoring system to continuously monitor and record the aqueous ammonia 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

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 NH_3/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 the owner or operator shall maintain records of the quantity of fuel delivered and a representative analysis of the fuel including 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.a. 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 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

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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, coal 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;
 - 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]

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D. Clinker and Additives Storage and Handling

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

EU ID	Emissions Unit Description
004	Clinker and Additives Storage and Handling. Includes clinker handling from clinker cooler to clinker silo discharge, and clinker and additive handling from storage to the finish mill.

The following emissions points in the raw materials conveying, storage, and processing system are controlled by baghouses:

Point ID	Emissions Point Description
L03	Dust collector for clinker transfer cooler discharge
L06	Dust collector for clinker transfer to clinker silo #1
L08	Dust collector for clinker transfer to clinker silo #2
M08	Dust collector for clinker transfer from clinker silos

APPLICABLE STANDARDS AND REGULATIONS

1. BACT Determinations: A determination of the Best Available Control Technology (BACT) was made for, particulate matter (PM/PM₁₀). To satisfy the BACT requirements for this unit the visible emissions limits act as 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 conveying and storage of clinker, and the additive (limestone and gypsum) storage and conveying to the finish mills. Equipment will include two clinker silos, gypsum and limestone pile covered storage, and associated conveyors, and control equipment.
4. 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 PM₁₀ design specification of 0.007 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, Rule62-210.200(PTE), F.A.C.]

EMISSIONS AND TESTING REQUIREMENTS

6. Emissions Limits: The following standards apply to each emissions point of this unit including all raw material storage and conveying system transfer points:
 - c. Emissions are limited to 5% opacity from each of the above listed emissions points controlled by a baghouse.
 - d. Emissions are limited to 10% opacity from any emissions point not controlled by a baghouse.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

D. Clinker and Additives Storage and Handling

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

{Note: The applicant advised that the baghouses are designed to control PM emissions to 0.01 grains/dry standard cubic foot (gr/dscf) and PM₁₀ emissions to 0.007 gr/dscf. The 5% opacity limitation is consistent with this design and provides reasonable assurance that annual emissions of PM/PM₁₀ for all emission points in this emission unit system will be no more than 4 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. 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. Compliance with the visible emission limits shall be demonstrated during each federal fiscal year (October 1st to September 30th). [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

E. Finish Mill

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

ID No.	Emissions Unit Description
005	Finish Mill (Cement Grinding)

The cement grinding process includes the following emission points controlled by fabric filter baghouses.

Point ID	Emissions Point Description
N93	Finish Mill Air Separator
N94	Finish Mill

APPLICABLE STANDARDS AND REGULATIONS

1. **BACT Determinations:** A determination of the Best Available Control Technology (BACT) was made for particulate matter (PM/PM₁₀). To satisfy some of the BACT requirements for this unit the visible emissions limits act as 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 one finish mill in a closed circuit with a high efficiency air separator and cyclones capable of processing approximately 159 tons per hour of cement. Other equipment will include associated enclosed conveyors, bucket elevators, belts, and control equipment.
4. **Baghouse Controls:** Each emissions point identified for cement grinding 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 PM₁₀ design specification of 0.007 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, Rule62-210.200(PTE), F.A.C]

EMISSIONS AND TESTING REQUIREMENTS

6. **Finish Mill:** Visible emissions are limited to 5% opacity from the finish mill baghouse (Point ID N94). [Rule 62-212.400(BACT), F.A.C.]

{Note: The applicant advised that the baghouse is designed to control PM emissions to 0.01 grains/dry standard cubic foot (gr/dscf) and PM₁₀ emissions to 0.007 gr/dscf. The 5% opacity limitation is consistent with this design and provides reasonable assurance that annual emissions of PM/PM₁₀ for this emission point in this emission unit system will be less than 5.8 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.}

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

E. Finish Mill

7. Finish Mill Air Separator: The following standards apply to the finish mill air separator (Point ID N93):

PM/ PM ₁₀	Visible Emissions
0.007 gr/dscf	5% Opacity

All PM emitted from the baghouse exhaust is assumed to be PM₁₀. The BACT requirements do not waive or vary any applicable NESHAP monitoring or record keeping requirements.

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

{Permitting Note: This emissions point accounts for almost 25% (34.9 TPY) of the facility's total PM emissions.}

8. Testing Requirements: Emission point N93 shall be tested to demonstrate initial compliance with the applicable standards for PM/PM₁₀, and visible emissions. All other emission points shall be tested for visible emissions only. The tests shall be conducted within 60 days after achieving a daily average clinker production rate of 125 tons per hour, 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 1st to September 30th). Compliance with the particulate matter standard shall be demonstrated during the 12 month period prior to each renewal of the operation permit. [Rule 62-297.310(7) (a), F.A.C.]
9. Periodic Monitoring Requirements: Each affected source subject to an opacity standard shall be periodically monitored using the procedures described in 40 CFR 63.1350(e) to ensure compliance with the emissions limits of condition No. 6 and 7.
[Rule 62-4.070(3), and 40 CFR, 63.1350, Subpart LLL]
10. 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
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.
9	Visual Determination of the Opacity of Emissions from Stationary Sources
22	Visual Determination of Fugitive Emissions From Material Sources

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

F. Cement Handling, Storage, Packing, and Loadout

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

ID No.	Emissions Unit Description
006	Cement Handling, Storage, Packing, and Loadout. Includes cement conveyance to silos, cement silos, loadout to trucks from silos, and cement bagging operations.

The following emissions points in the cement handling, storage, packing, and loadout system are controlled by baghouses:

Point ID	Emissions Point Description
N91	Cement Transfer from Finish Mill
Q25	Cement Silo #1
Q26	Cement Silo #2
Q14	Truck Loadout #1
Q17	Truck Loadout #2
R12A	Packing Plant

APPLICABLE STANDARDS AND REGULATIONS

- BACT Determinations:** A determination of the Best Available Control Technology (BACT) was made for particulate matter (PM/PM₁₀).
- 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 storage, loadout to trucks, and bagging operations. Equipment will include two concrete cement silos with rotary shut-off valves, flow control valve, and airslides. The cement bagging operation includes a screen, surge hopper, bucket elevator and packer. Operation is estimated to be nominally 500 tons per hour of cement to truck loadout and/or bagging operation.
- 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 PM₁₀ design specification of 0.007 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, Rule62-210.200(PTE), F.A.C]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

F. Cement Handling, Storage, Packing, and Loadout

EMISSIONS AND TESTING REQUIREMENTS

6. Emissions Limits: The following standards apply to each emissions point of this unit:
- Emissions are limited to 5% opacity from each of the above listed emissions points controlled by a baghouse.
 - 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 PM₁₀ emissions to 0.007 gr/dscf. The 5% opacity limitation is consistent with this design and provides reasonable assurance that annual emissions of PM/PM₁₀ for all emission points in this emission unit system will be less than 15.1 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. 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. Compliance with the visible emission limits shall be demonstrated during each federal fiscal year (October 1st to September 30th). [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

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	Coal and Petroleum Coke Grinding System. Includes coal/petroleum coke handling from railcar unloading to the pulverized fuel bin.

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

Point ID	Emissions Point Description
S22	Coal/Petroleum Coke Mill Including Thermal Dryer
S26	Coal/Petroleum Coke Bin

APPLICABLE STANDARDS AND REGULATIONS

1. **BACT Determinations:** A determination of the Best Available Control Technology (BACT) was made for particulate matter (PM/PM₁₀). 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/petroleum coke grinding mill, 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 PM₁₀ design specification of 0.007 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.]
6. **Process Rate Limitation:** The coal/petroleum coke mill may process up to 18.5 tons per hour of coal/petroleum coke. No more than 134,904 tons of coal/petroleum coke shall be processed during any consecutive 12 months. [Rule 62-210.200(PTE), F.A.C.]

EMISSIONS AND TESTING REQUIREMENTS

7. **Particulate Matter Standards:** Particulate matter emissions from the thermal dryer (Point ID S22) shall not exceed 0.007 grains per dscf of exhaust as determined by EPA method 5. [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

8. Visible Emissions Standards: Visible emissions shall not exceed the following limits.
- Visible emission from any emissions point described above and controlled by a baghouses shall not exceed 5% opacity.
 - 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 10% opacity.

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

9. Testing Requirements: Emission point S22 shall be stack tested to demonstrate initial compliance with the applicable emission standards for PM/PM₁₀ 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/PM₁₀) 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 1st to September 30th). [Rule 62-297.310(7)(a), F.A.C.]

10. 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

11. 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, Subpart Y. [CFR 60, Subpart Y]

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), and 40 CFR 63.1350, Subpart LLL]
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

H. Fugitive Dust From Storage Piles, Paved Roads, and Unpaved Roads

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

ID No.	Emissions Unit Description
008	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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Appendix BD	Final BACT Determination and Emissions Standards
Appendix C	Common State Rules
Appendix GC	Construction Permit General Conditions
Appendix LLL	NESHAP Subpart LLL Provisions – Portland Cement Manufacturing Industry
Appendix OOO	NSPS Subpart OOO Provisions – Nonmetallic Mineral Processing Plants
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SECTION IV. APPENDIX BD
FINAL BACT DETERMINATION AND EMISSION STANDARDS

PROJECT DESCRIPTION

The proposed facility will be a nominal 1,150,000 tons per year (TPY) dry process portland cement plant incorporating a dry process kiln with a preheater and calciner (PH/C). Major equipment associated with the main components of the plant will include the following:

- A materials storage building (MSB);
- A primary crusher at the quarry and belt conveyors to MSB;
- Raw material piles stored inside of the MSB. The piles will include limestone, alumina sources (e.g. bauxite, clay, and coal ash), iron sources (e.g. mill scale and iron ore), silica sources (e.g. sand), and additives (e.g. feldspar);
- Materials handling equipment including portal reclaimers, stackers, belt conveyors, conveyor from the MSB 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 and selective non-catalytic reduction (SNCR) system;
- An air heater for use when additional drying capacity is required;
- A nominal 10,000 ton blending silo;
- An indirect-firing system with a low-NO_x main kiln burner capable of burning coal, petroleum coke, fuel oil, and natural gas;
- A whole tire feeder system;
- A clinker cooler with reciprocating grates, cooling air fans, and hot air ducting to the kiln and PH/C;
- Clinker storage and grinding including a finish mill with air separator, clinker silos with metering device, limestone and gypsum piles, and associated conveyors;
- A cement transfer and storage facility including truck loadout and packhouse; and
- A nominal 18 TPH coal and petroleum coke grinding system with associated mill, storage facility, conveyors, including a fabric filter baghouse.

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

EU ID	Emissions Unit Description
001	Raw Material Quarrying, Crushing, and Storage. Includes raw material processing from quarry up to raw material storage, and additives handling from delivery to storage.
002	Raw Materials, Conveying, Storage, and Processing. From raw material and additive storage to preheater (includes conveyance of raw materials and raw meal to and from raw mill, and homogenizing silo).
003	Pyroprocessing System. Includes kiln, preheater/calciner, raw mill, air heater, and clinker cooler.
004	Clinker and Additives Storage and Handling. Includes clinker handling from clinker cooler to clinker silo discharge, and clinker and additive handling from storage to the finish mill.
005	Finish Mill (Cement Grinding)
006	Cement Handling, Storage, Packing, and Loadout. Includes cement conveyance to silos, cement silos, loadout to trucks from silos, and cement bagging operations.
007	Coal and Petroleum Coke Grinding System. Includes coal/petroleum coke handling from railcar unloading to the pulverized fuel bin.
008	Fugitive Dust From Storage Piles, Paved Roads, and Unpaved Roads

SECTION IV. APPENDIX BD
FINAL BACT DETERMINATION AND EMISSION STANDARDS

RAW MATERIAL QUARRYING, CRUSHING, AND STORAGE

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, STORAGE, AND PROCESSING

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 PM₁₀ design specification of 0.007 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.
- b. Emissions are limited to 10% opacity from any emissions point not 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_x Controls

Low-NO_x Burners and Indirect Firing: The main kiln and calciner will be equipped with Low NO_x 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): The kiln system will be designed such that the introduction of fuel, air and meal to the calciner will be staged or sequenced for the reduction of NO_x emissions.

SNCR: A selective non-catalytic reduction (SNCR) system shall be designed, constructed and operated to achieve the permitted levels for NO_x emissions from the pyroprocessing system. The SNCR system will consist of an aqueous ammonia tank, pumps, piping, compressed air delivery, injectors, control system, and other ancillary equipment. Aqueous ammonia will be injected at a location(s) in the preheater/calciner with an appropriate temperature profile to support the SNCR process.

Particulate Matter (PM/PM₁₀) Controls:

The permittee shall install a baghouse control system to remove particulate matter emissions from the pyroprocessing exhaust gas stream to achieve the PM/PM₁₀ emissions standards specified in this permit.

Sulfur Dioxide Controls:

The use of low-sulfur raw materials will help to keep SO₂ emissions below permitted levels.

Carbon Monoxide/Volatile Organic Compounds Controls:

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.

SECTION IV. APPENDIX BD
FINAL BACT DETERMINATION AND EMISSION STANDARDS

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
	362.5 lb/hr			
NO _x ^a	1.95 lb/ton of clinker	30-day rolling	CEMS	BACT
	243.8 lb/hr			
PM/PM ₁₀ ^b	0.153 lb/ton of clinker	Three 1-hr runs	3-Run Test	BACT
	19.13 lb/hr			
	10 % opacity	6-minute block	COMS	
SO ₂	0.20 lb/ton of clinker	24-hr rolling	CEMS	BACT
	25.0 lb/hr			
VOC ^c	0.12 lb/ton of clinker	30-day block	CEMS	BACT
	15.0 lb/hr			

- a. For an “initial startup period” NO_x emissions shall not exceed 3.0 lb/ton of clinker (375.0 lb/hour) based on a 30-day rolling average. The “initial startup” period shall begin after initial certification of the NO_x CEMS and shall end as soon as any of the following conditions are met:

- 1) The Kiln system produces 77,500 tons of clinker or more in any 30-day rolling period.
- 2) The Kiln system produces a total of 155,000 tons of clinker.
- 3) 365 days calendar days elapse after initial certification of the NO_x CEMS.

After the “initial startup” period ends, NO_x emissions shall not exceed 1.95 lb/ton of clinker (243.8 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 PM₁₀. The BACT standard for PM is equivalent to approximately 0.09 lb 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.

{Permitting Note: In combination with the annual clinker production limitation of 1,095,000 tons per year, the above emissions standards effectively limit annual potential emissions from this unit to: 1,588 tons/year of CO; 1,068 tons/year of NO_x (after year one); 83.8 tons/year of PM/PM₁₀; 110 tons/year of SO₂; and 66 tons/year of VOC. Note that first year annual NO_x emissions could be as high as 1,643 tons/year.}

CLINKER AND ADDITIVES STORAGE AND HANDLING

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.

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 PM₁₀ design specification of 0.007 gr/dscf.

SECTION IV. APPENDIX BD
FINAL BACT DETERMINATION AND EMISSION STANDARDS

Opacity shall be determined in accordance with EPA Method 9.

Finish Mill (Cement Grinding)

Finish Mill: Visible emissions are limited to 5% opacity from the finish mill baghouse. The baghouse is designed to control PM emissions to 0.01 grains/dry standard cubic foot (gr/dscf) and PM₁₀ emissions to 0.007 gr/dscf.

Finish Mill Air Separator: The following BACT standards apply to the finish mill air separator:

PM/ PM ₁₀	Visible Emissions
0.007 gr/dscf	5% Opacity

All PM emitted from the baghouse exhaust is assumed to be PM₁₀. PM emissions will be determined in accordance with EPA Method 5. Opacity shall be determined in accordance with EPA Method 9.

CEMENT HANDLING, STORAGE, PACKING, AND LOADOUT

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 PM₁₀ design specification of 0.007 gr/dscf.

The following BACT standards apply to each emissions point of this unit:

- 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.

Opacity shall be determined in accordance with EPA Method 9.

COAL AND PETROLEUM COKE GRINDING SYSTEM

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 PM₁₀ design specification of 0.007 gr/dscf.

Particulate Matter Standards: Particulate matter emissions from the thermal dryer shall not exceed 0.007 grains per dscf of exhaust as determined by EPA method 5.

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

- Visible emission from any emissions point described above and controlled by a baghouses shall not exceed 5% opacity.
- 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 10% 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:

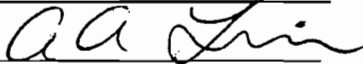
- a. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity without taking reasonable precautions to prevent such emissions. Such activities include, but are not limited to: vehicular movement; transportation of materials; construction, alteration, 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.

SECTION IV. APPENDIX BD

FINAL BACT DETERMINATION AND EMISSION STANDARDS

- (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.

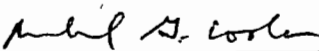
DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

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

February 10, 2006
Date

2/13/06
Date

SECTION IV. APPENDIX C
COMMON STATE RULES

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

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

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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.

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NESHAP SUBPART LLL PROVISIONS – PORTLAND CEMENT MANUFACTURING INDUSTRY

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

EU ID	Emissions Unit Description
002	Raw Materials, Conveying, Storage, and Processing. From raw material and additive storage to preheater (includes conveyance of raw materials and raw meal to and from raw mill, and homogenizing silo).
003	Pyroprocessing System. Includes kiln, preheater/calcliner, raw mill, air heater, and clinker cooler.
004	Clinker and Additives Storage and Handling. Includes clinker handling from clinker cooler to clinker silo discharge, and clinker and additive handling from storage to the finish mill.
005	Finish Mill (Cement Grinding)
006	Cement Handling, Storage, Packing, and Loadout. Includes cement conveyance to silos, cement silos, loadout to trucks from silos, and cement bagging operations.
008	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.

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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.

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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.

Affected Source	Pollutant / Opacity	Emission and Operating Limit
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 or 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. Operate such that the three-hour rolling average PMCD inlet temperature is no greater than the temperature established at performance test. 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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Affected Source	Pollutant / Opacity	Emission and Operating Limit
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 (8.7×10^{-11} gr per dscf)(TEQ) corrected to seven percent oxygen; or
 - (ii) 0.40 ng per dscm (1.7×10^{-10} gr per dscf)(TEQ) corrected to seven percent oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204° 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 (8.7×10^{-11} gr per dscf)(TEQ) corrected to seven percent oxygen; or
 - (ii) 0.40 ng per dscm (1.7×10^{-10} gr per dscf)(TEQ) corrected to seven percent oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204° 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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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

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any gases 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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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:

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

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,

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

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

Affected Source and Pollutant	Performance Test
New and existing kiln and in-line kiln/raw mill ^{b,c} PM	EPA Method 5 ^a
New and existing kiln and in-line kiln/raw mill ^{b,c} Opacity	COM if feasible ^{d,e} or EPA Method 9 visual opacity readings.
New and existing kiln and in-line kiln/raw mill ^{b,c,f,g} D/F	EPA Method 23 ^h
New greenfield kiln and in-line kiln/raw mill ^f THC	THC CEM (EPA PS-8A) ⁱ
New and existing clinker cooler PM	EPA Method 5 ^a
New and existing clinker cooler opacity	COM ^{d,j} or EPA Method 9 visual opacity readings
New and existing raw and finish mill opacity	EPA Method 9 ^{a,j}
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 ^{a,j}
New greenfield raw material dryer THC	THC CEM (EPA PS-8A) ⁱ

- ^a Required initially and every 5 years thereafter.
- ^b Includes main exhaust and alkali bypass.
- ^c In-line kiln/raw mill to be tested with and without raw mill in operation.
- ^d Must meet COM performance specification criteria. If the fabric filter or electrostatic precipitator has

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- multiple 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,

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- roof 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 ± 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 considering previous recordings.

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- (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;
 - (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

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- 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).
 - (7) The baseline output of the system must be established as follows:

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- (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.

Affected Source/Pollutant or Opacity	Monitor Type/ Operation/Process	Monitoring Requirements
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
	Method 9 opacity test, if applicable	Daily test of at least 30-minutes, while kiln is at highest load or capacity level.

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Affected Source/Pollutant or Opacity	Monitor Type/ Operation/Process	Monitoring Requirements
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 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

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§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 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

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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 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

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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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NESHAP SUBPART LLL PROVISIONS – PORTLAND CEMENT MANUFACTURING INDUSTRY

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

Citation	Requirement	Applies?	Explanation
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) Ext	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	
63.7(c)	Quality Assurance/Test Plan	Yes	

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Citation	Requirement	Applies?	Explanation
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	Raw Material Quarrying, Crushing, and Storage. Includes raw material processing from quarry up to raw material storage, and additives handling from delivery to storage.

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

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NSPS SUBPART OOO – NONMETALLIC MINERAL PROCESSING PLANTS

sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and 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.

ID No.	Emissions Unit Description
007	Coal and Petroleum Coke Grinding System. Includes coal/petroleum coke handling from railcar unloading to the pulverized fuel bin.

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.

- (a) The owner or operator of any thermal dryer shall install, calibrate, maintain, and continuously operate monitoring devices as follows:

SECTION IV. APPENDIX Y

NSPS SUBPART Y – COAL PREPARATION PLANTS

- (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.

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> ■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits. <p>1. Article Addressed to:</p> <p style="text-align: center;">Mr. Cary Cohrs, NRCF dba ACC Post Office Box 1209 Anthony, Florida 32617</p>	<p>A. Signature <i>R.E. Moser</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>R.E. Moser</i> C. Date of Delivery <i>2/16/06</i></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Transfer from service label) 7000 1670 0013 3110 0628</p>	
<p>PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540</p>	

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee <small>(Endorsement Required)</small>		
Restricted Delivery Fee <small>(Endorsement Required)</small>		

7000 1670 0013 3110 0628

Mr. Cary Cohrs, NRCF dba ACC
Post Office Box 1209
Anthony, Florida 32617

PS Form 3800, May 2000 See back for instructions



RECEIVED

October 12, 2009

OCT 15 2009

Ms. Danielle Henry
FDEP, Southwest District
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926

BUREAU OF AIR REGULATION

RE: American Cement Company, LLC
Postponement of Stack Testing and Other Initial Compliance Testing
EU-002, EU-003, EU-004, EU-007
Air Permit No. 1190042-001-AC

Dear Ms. Henry:

American Cement Company, LLC is requesting a postponement of Stack Testing and other Initial Compliance Testing of Emission Units in Table 1. Each Emission Unit is inter-dependent affecting the ability to perform required tests.

Table 1:

EU ID	Emission Unit Description
002	Raw Materials, Conveying, Storage, and Processing. From raw material and additive storage to preheater (includes conveyance of raw materials and raw meal to and from raw mill, and homogenizing silo).
003	Pyroprocessing System. Includes kiln, preheater/calcliner, raw mill, air heater, and clinker cooler.
004	Clinker and Additives Storage and Handling. Includes clinker handling from clinker cooler to clinker silo discharge, and clinker and additive handling from storage to finish mill.
007	Coal and Petroleum Coke Grinding System. Includes coal/petroleum coke handling from unloading to the pulverized fuel bin.

The kiln operation has been hindered by engineering issues and mechanical failures preventing the kiln to operate on a consistent basis at throughput levels required by regulation to complete the stack testing and initial compliance testing. Over the past several months the equipment supplier has made an extensive effort to solve the issues with no definitive solution to date. However, we believe the solution is imminent and will be implemented soon.

if you would like, American Cement Company, LLC will meet with you to discuss the circumstances leading to this request for postponement of stack testing and other initial compliance testing.

Sincerely,

AMERICAN CEMENT COMPANY, LLC

Charles Robertson
Environmental Manager

Copies to: Mr. Al Linero, Florida Department of Environmental Protection
Dr. John Koogler, Koogler and Associates, Inc.
Mr. Cary Cohrs, American Cement Company, LLC
Mr. William Wall, American Cement Company, LLC



Updated ARMS 8/24/07

August 20, 2007

RECEIVED

AUG 22 2007

BUREAU OF AIR REGULATION

Ms. Mara Grace Nasca
Administrator, Air Programs
Florida Department of
Environmental Protection
Southwest District
13051 N. Telecom Parkway
Temple Terrace, FL 33637

Dear Ms. Nasca:

Please find enclosed a completed Responsible Official Notification form for the American Cement Company, LLC facility in Sumterville, FL.

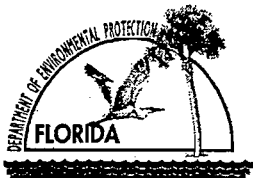
Should you have any question concerning this submittal, please do not hesitate to contact me at 352-569-5393.

Respectfully,

George Townsend

pc Cary O. Cohrs, President, w/o Enclosure
William P. Wall, Plant Manager, w/o Enclosure
Al Liner, P.E. Administrator, DEP

C:\Documents and Settings\townsendg\My Documents\American Cement\FDEP Correspondance\Responsible Official Notification.doc



Department of Environmental Protection RECEIVED

Division of Air Resource Management

AUG 22 2007

RESPONSIBLE OFFICIAL NOTIFICATION FORM

BUREAU OF AIR REGULATION

Note: A responsible official is not necessarily a designated representative under the Acid Rain Program. To become a designated representative, submit a certificate of representation to the U.S. Environmental Protection Agency (EPA) in accordance with 40 CFR Part 72.24.

Identification of Facility

1. Facility Owner/Company Name: American Cement Company, LLC	
2. Site Name: Sumterville Plant	3. County: Sumter County
4. Title V Air Operation Permit/Project No. (leave blank for initial Title V applications): Air Construction Permit Number - 1190042-001-AC PSD-FL-361	

Notification Type (Check one or more)

<input checked="" type="checkbox"/>	INITIAL: Notification of responsible officials for an initial Title V application.
<input type="checkbox"/>	RENEWAL: Notification of responsible officials for a renewal Title V application.
<input type="checkbox"/>	CHANGE: Notification of change in responsible official(s). Effective date of change in responsible official(s) _____

Primary Responsible Official

1. Name and Position Title of Responsible Official: Cary O. Cohrs - President
2. Responsible Official Mailing Address: Organization/Firm: American Cement Company, LLC Street Address: 4750 E CR 470 * P O Box 445 City: Sumterville State: FL Zip Code: 33585
3. Responsible Official Telephone Numbers: Telephone: (352) 569 - 5393 Fax: (352) 569 - 5397
4. Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.
5. Responsible Official Statement: <i>I, the undersigned, am a responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I certify that I have authority over the decisions of all other responsible officials, if any, for purposes of Title V permitting.</i> Signature: <u>Cary O. Cohrs</u> Date: <u>8/15/07</u>

Additional Responsible Official

1. Name and Position Title of Responsible Official:
2. Responsible Official Mailing Address: Organization/Firm: Street Address: City: State: Zip Code:
3. Responsible Official Telephone Numbers: Telephone: () - Fax: () -
4. Responsible Official Qualification (<i>Check one or more of the following options, as applicable</i>): <input type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.

Additional Responsible Official

1. Name and Position Title of Responsible Official:
2. Responsible Official Mailing Address: Organization/Firm: Street Address: City: State: Zip Code:
3. Responsible Official Telephone Numbers: Telephone: () - Fax: () -
4. Responsible Official Qualification (<i>Check one or more of the following options, as applicable</i>): <input type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.



KOOGLER & ASSOCIATES, INC.
ENVIRONMENTAL SERVICES
4014 NW 13th STREET
GAINESVILLE, FL 32609-1923
352/377-5822 ■ FAX/377-7158

KA 690-07-02
June 28, 2007

RECEIVED

JUN 29 2007

BUREAU OF AIR REGULATION

Mr. Al Linero
FDEP
Twin Towers Office Bldg
2600 Blair Stone Road, MS 5500
Tallahassee, FL 32399-2400

RE: *American Cement Company*
FDEP Permit 1190042-001-AC
Change in Kiln/Raw Mill/Cooler Stack Diameter

Dear Al,

In accordance with my telephone conversations with you and Teresa Heron, I have attached a copy of my letter of June 8, 2007 to Cary Cohrs that is sealed with my Florida Professional Engineering Seal. The letter was forwarded to you at an earlier date under cover of a letter from Mr. Cohrs.

In the letter, I present information that demonstrates that an increase in the kiln/raw mill/cooler stack diameter from 10.2 feet (as originally permitted) to a nominal 11 foot diameter will have no significant effect on ambient air quality.

Also enclosed is a check in the amount of \$250.00 made payable to the Florida Department of Environmental Protection to cover the processing fee of a minor air construction permit amendment.

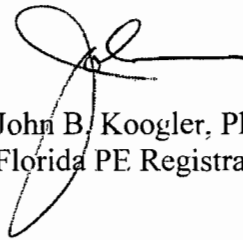
Al Linero
June 28, 2007

2

If there are any questions or further information is required, please do not hesitate to contact me.

Very truly yours,

KOOGLER & ASSOCIATES



John B. Koogler, Ph.D., P.E.
Florida PE Registration No. 12925

JBK/lt

Encl:

cc: Teresa Heron
Cary Cohrs
George Townsend





4014 NW 13th STREET
GAINESVILLE, FL 32609-1923
352/377-5822 • FAX/377-7158

KA 690-07-02
June 8, 2007

RECEIVED

JUN 29 2007

BUREAU OF AIR REGULATION

Mr. Cary Cohrs
American Cement Company
PO Box 445
Sumterville, Florida 33585

RE: FDEP Permit 1190042-001-AC
Change in Kiln/Raw Mill/Clinker Cooler Stack Diameter

Dear Cary,

At your request, we've looked into the effect of changing the diameter of the kiln/raw mill/clinker cooler stack on ambient air quality. To summarize, we determined through the use of air quality modeling, that an increase in the diameter of the stack from 10.2 feet to a nominal 11 feet will have no significant effect on ambient air quality. As a result, there is no technical reason that would prevent FDEP from changing the above captioned permit to allow a larger diameter stack.

The above captioned permit in Section III.C.-*Pyroprocessing System*, at Specific Condition 3 states:

The exhaust stack [of the kiln/raw mill/cooler] shall be no more than 10.2 feet in diameter and no less than 350 feet tall.

This requirement was based on the fact that these parameters were used in the air quality modeling presented to the Department in support of the application for the above captioned permit. The condition was included in the permit to provide assurance that

significant changes in the stack diameter and/or stack height would not be made if the changes could significantly and adversely affect ambient air quality.

During the engineering and design of your plant, Polysius has determined that a stack diameter of 10.2 would not provide for the proper operation of the pyroprocessing system and that a larger diameter stack would be required. The design changes will not affect the stack height, the stack gas flow rate or the stack gas temperature. As a result, we conducted air quality modeling to assess the impact of the change in diameter using emissions from the kiln/raw mill/cooler stack only as this was the only stack to change. To be consistent with the original modeling, the modeling was conducted with the ISC model. Also, as with the original modeling, meteorological data for 1987-1991 were used. The modeling was similar to that described in the report submitted with the original application for the *Area of Significant Impact* modeling.

The results of the modeling are summarized in the attached table. Emissions of carbon monoxide, PM10, nitrogen oxides and sulfur dioxide were modeled for each of the five years at 1) the emission rate and stack diameter (10.2 feet) used in the application, 2) the permitted emission rate and the 10.2 foot stack diameter, and 3) the permitted emission rate with a nominal 11 foot diameter stack. The modeling shows the change in diameter has very little effect on the ambient air quality impacts and most importantly, the modeling shows that all of the air quality impacts are much less than significant (as defined at 62-210.200(279), F.A.C.). Even if the change in stack diameter did have a more pronounced effect on ambient concentrations, the ambient concentrations in the range investigated are not significant and any changes in the concentrations are therefore not relevant from a permitting standpoint.

These modeling results are not unexpected as the change in stack diameter affects only the discharge velocity of the stack gas. The stack gas velocity plays a role in the

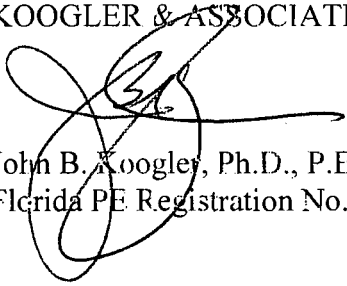
way the air quality models calculate plume rise, but the most dominant factor by far in this calculation is the buoyancy of the plume (a function of the volumetric stack gas discharge rate and the stack gas temperature). As neither the stack gas flow rate nor the stack gas temperature changed, the buoyancy factor remains unchanged and model calculated ambient concentrations are only slightly affected.

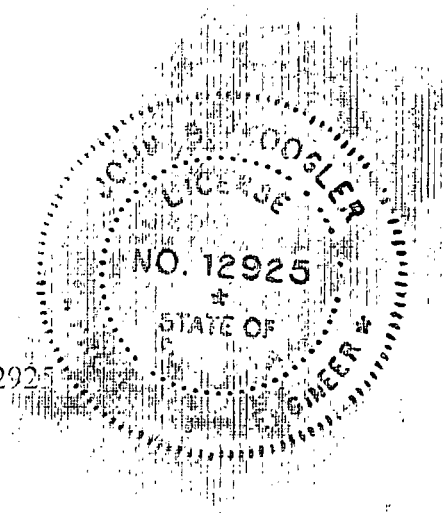
In reviewing recent permits issued by the Department and in applications to the Department, it is evident that there is an awareness of the fact that stack diameters may change with final engineering/design. As a result, stack diameters are now stated as "nominal" diameters.

If there are any questions regarding the information contained herein, please do not hesitate to contact me.

Very truly yours,

KOOGLER & ASSOCIATES


John B. Koogler, Ph.D., P.E.
Florida PE Registration No. 12925



JBK/lt

Attachment: Table



Pollutant ⁽¹⁾	Emission Rate (lb/ton clk)	Averaging Time	Ambient Pollutant Concentration (ug/m3)					Ratio of Permitted@~11 ft to Application	Fraction of Significant Impact	
			Significant Impact	Meteorological Data						
				1987	1988	1989	1990			1991
Carbon monoxide										
(1) From Application	3.2	1-hr	2000	39.3	49.3	52.2	37.8	43.0		
		8-hr	500	11.5	12.1	13.8	10.5	11.7		
(2) Permitted @ 10.2 ft.	2.9	1-hr	2000	35.6	44.7	47.3	34.2	38.9		
		8-hr	500	10.4	11.0	12.5	9.5	10.6		
(3) Permitted @ ~11 ft.	2.9	1-hr	2000	35.6	44.6	47.3	34.1	38.9	91%	2.4%
		8-hr	500	10.5	10.9	11.2	10.8	10.5	81%	2.2%
PM10⁽²⁾										
(1) From Application	0.153	24-hr annual	5 1	0.18 0.01	0.20 0.01	0.24 0.01	0.19 0.01	0.21 0.01		
(2) Permitted @ 10.2 ft.	0.153	24-hr annual	5 1	0.18 0.01	0.20 0.01	0.24 0.01	0.19 0.01	0.21 0.01		
(3) Permitted @ ~11 ft.	0.153	24-hr annual	5 1	0.18 0.01	0.21 0.01	0.24 0.01	0.19 0.01	0.21 0.01	100% 106%	4.9% 1.5%
Nitrogen Oxides										
(1) From Application	1.95	annual	1	0.13	0.15	0.17	0.16	0.18		
(2) Permitted @ 10.2 ft.	1.95	annual	1	0.13	0.15	0.17	0.16	0.18		
(3) Permitted @ ~11 ft.	1.95	annual	1	0.14	0.15	0.18	0.16	0.19	106%	18.8%
Sulfur Dioxide										
(1) From Application	0.23	3-hr 24-hr annual	25 5 1	1.5 0.3 0.02	1.6 0.4 0.02	1.9 0.4 0.02	1.5 0.3 0.02	1.6 0.4 0.02		
(2) Permitted @ 10.2 ft.	0.20	3-hr 24-hr annual	25 5 1	1.3 0.2 0.01	1.4 0.4 0.02	1.7 0.3 0.02	1.3 0.3 0.02	1.4 0.4 0.02		
(3) Permitted @ ~11 ft.	0.20	3-hr 24-hr annual	25 5 1	1.3 0.2 0.01	1.4 0.4 0.02	1.3 0.3 0.02	1.3 0.3 0.02	1.4 0.4 0.02	73% 95% 92%	5.7% 7.9% 1.9%

(1) - Modeling conducted for (1) Application with 10.2 ft diameter stack and noted emission rate; (2) for Permitted emission rate and 10.2 ft diameter stack; and (3) for Permitted emission rate and a nominal 11 ft diameter stack. Impact comparison is made between (3) and (1).

(2) - PM10 emissions from Kiln/Raw Mill/Cooler stack only. Parameters of other emission points are unchanged.



June 15, 2007

RECEIVED

JUN 21 2007

BUREAU OF AIR REGULATION

Al Linero, P.E.
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Linero:

Per our discussion, Polysius Corporation, the process equipment supplier for American Cement Company has completed their final process audit for our plant. As a result of this audit, they have chosen a main stack diameter slightly larger than that which is shown in our permit. We both believe the nominal 11 foot diameter stack will provide us with better operating conditions than the 10.2 listed in our permit.

We do not believe this change is of any significance and requested that Koogler & Associates re-evaluate/re-model our prospective emissions to support the position.

The attached report and modeling results are for your review. Additionally, the State now issues permits with the flexibility to reasonably alter stack designs by using the term "nominal".

We kindly request an update to our air construction permit to reflect this change to an 11 foot nominal stack.

Thank you for your assistance. Should you have any questions, please do not hesitate to contact me.

Sincerely,

AMERICAN CEMENT COMPANY, LLC

A handwritten signature in cursive script, appearing to read 'Cary O. Cohrs'.

Cary O. Cohrs
President

COC/kb



4014 NW 13th STREET
GAINESVILLE, FL 32609-1923
352/377-5822 ▪ FAX/377-7158

KA 690-07-02
June 8, 2007

Mr. Cary Cohrs
American Cement Company
PO Box 445
Sumterville, Florida 33585

RE: FDEP Permit 1190042-001-AC
Change in Kiln/Raw Mill/Clinker Cooler Stack Diameter

Dear Cary,

At your request, we've looked into the effect of changing the diameter of the kiln/raw mill/clinker cooler stack on ambient air quality. To summarize, we determined through the use of air quality modeling, that an increase in the diameter of the stack from 10.2 feet to a nominal 11 feet will have no significant effect on ambient air quality. As a result, there is no technical reason that would prevent FDEP from changing the above captioned permit to allow a larger diameter stack.

The above captioned permit in Section III.C.-*Pyroprocessing System*, at Specific Condition 3 states:

The exhaust stack [of the kiln/raw mill/cooler] shall be no more than 10.2 feet in diameter and no less than 350 feet tall.

This requirement was based on the fact that these parameters were used in the air quality modeling presented to the Department in support of the application for the above captioned permit. The condition was included in the permit to provide assurance that

significant changes in the stack diameter and/or stack height would not be made if the changes could significantly and adversely affect ambient air quality.

During the engineering and design of your plant, Polysius has determined that a stack diameter of 10.2 would not provide for the proper operation of the pyroprocessing system and that a larger diameter stack would be required. The design changes will not affect the stack height, the stack gas flow rate or the stack gas temperature. As a result, we conducted air quality modeling to assess the impact of the change in diameter using emissions from the kiln/raw mill/cooler stack only as this was the only stack to change. To be consistent with the original modeling, the modeling was conducted with the ISC model. Also, as with the original modeling, meteorological data for 1987-1991 were used. The modeling was similar to that described in the report submitted with the original application for the *Area of Significant Impact* modeling.

The results of the modeling are summarized in the attached table. Emissions of carbon monoxide, PM10, nitrogen oxides and sulfur dioxide were modeled for each of the five years at 1) the emission rate and stack diameter (10.2 feet) used in the application, 2) the permitted emission rate and the 10.2 foot stack diameter, and 3) the permitted emission rate with a nominal 11 foot diameter stack. The modeling shows the change in diameter has very little effect on the ambient air quality impacts and most importantly, the modeling shows that all of the air quality impacts are much less than significant (as defined at 62-210.200(279), F.A.C.). Even if the change in stack diameter did have a more pronounced effect on ambient concentrations, the ambient concentrations in the range investigated are not significant and any changes in the concentrations are therefore not relevant from a permitting standpoint.

These modeling results are not unexpected as the change in stack diameter affects only the discharge velocity of the stack gas. The stack gas velocity plays a role in the

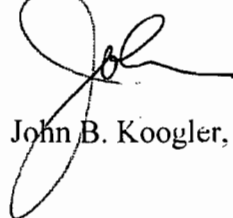
way the air quality models calculate plume rise, but the most dominant factor by far in this calculation is the buoyancy of the plume (a function of the volumetric stack gas discharge rate and the stack gas temperature). As neither the stack gas flow rate nor the stack gas temperature changed, the buoyancy factor remains unchanged and model calculated ambient concentrations are only slightly affected.

In reviewing recent permits issued by the Department and in applications to the Department, it is evident that there is an awareness of the fact that stack diameters may change with final engineering/design. As a result, stack diameters are now stated as "nominal" diameters.

If there are any questions regarding the information contained herein, please do not hesitate to contact me.

Very truly yours,

KOOGLER & ASSOCIATES



John B. Koogler, Ph.D., P.E.

JBK/it

Attachment: Table

Pollutant ⁽¹⁾	Emission Rate (lb/ton clk)	Averaging Time	Ambient Pollutant Concentration (ug/m3)					Ratio of Permitted@~11 ft to Application	Fraction of Significant Impact	
			Significant Impact	Meteorological Data						
				1987	1988	1989	1990			1991
Carbon monoxide										
(1) From Application	3.2	1-hr	2000	39.3	49.3	52.2	37.8	43.0		
		8-hr	500	11.5	12.1	13.8	10.5	11.7		
(2) Permitted @ 10.2 ft.	2.9	1-hr	2000	35.6	44.7	47.3	34.2	38.9		
		8-hr	500	10.4	11.0	12.5	9.5	10.6		
(3) Permitted @ ~11 ft.	2.9	1-hr	2000	35.6	44.6	47.3	34.1	38.9	91%	
		8-hr	500	10.5	10.9	11.2	10.8	10.5	81%	
PM10⁽²⁾										
(1) From Application	0.153	24-hr annual	5 1	0.18 0.01	0.20 0.01	0.24 0.01	0.19 0.01	0.21 0.01		
(2) Permitted @ 10.2 ft.	0.153	24-hr annual	5 1	0.18 0.01	0.20 0.01	0.24 0.01	0.19 0.01	0.21 0.01		
(3) Permitted @ ~11 ft.	0.153	24-hr annual	5 1	0.18 0.01	0.21 0.01	0.24 0.01	0.19 0.01	0.21 0.01	100%	
									106%	
Nitrogen Oxides										
(1) From Application	1.95	annual	1	0.13	0.15	0.17	0.16	0.18		
(2) Permitted @ 10.2 ft.	1.95	annual	1	0.13	0.15	0.17	0.16	0.18		
(3) Permitted @ ~11 ft.	1.95	annual	1	0.14	0.15	0.18	0.16	0.19	106%	
Sulfur Dioxide										
(1) From Application	0.23	3-hr 24-hr annual	25 5 1	1.5 0.3 0.02	1.6 0.4 0.02	1.9 0.4 0.02	1.5 0.3 0.02	1.6 0.4 0.02		
(2) Permitted @ 10.2 ft.	0.20	3-hr 24-hr annual	25 5 1	1.3 0.2 0.01	1.4 0.4 0.02	1.7 0.3 0.02	1.3 0.3 0.02	1.4 0.4 0.02		
(3) Permitted @ ~11 ft.	0.20	3-hr 24-hr annual	25 5 1	1.3 0.2 0.01	1.4 0.4 0.02	1.3 0.3 0.02	1.3 0.3 0.02	1.4 0.4 0.02	73%	
									95%	
									92%	

(1) - Modeling conducted for (1) Application with 10.2 ft diameter stack and noted emission rate; (2) for Permitted emission rate and 10.2 ft diameter stack; and (3) for Permitted emission rate and a nominal 11 ft diameter stack. Impact comparison is made between (3) and (1).

(2) - PM10 emissions from Kiln/Raw Mill/Cooler stack only. Parameters of other emission points are unchanged.