

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT

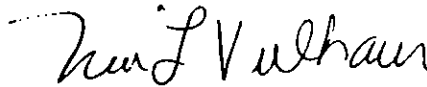
*In the Matter of an Application
for Air Construction Permit by:*

Mr. Hardy Johnson, President Tarmac America, LLC 445 Fairway Drive Deerfield Beach, Florida 33441	DEP File No. 0250020-017-AC (PSD-FL-360) Titan Florida Pennsuco Cement Plant Production Increase Miami-Dade County, Florida
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Enclosed is the Final Permit Number PSD-FL-360 (0250020-017-AC) to increase annual production at the Titan Florida Pennsuco Cement Plant in Medley, Miami-Dade 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

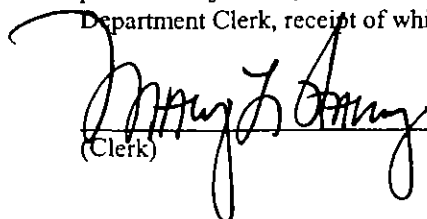
CERTIFICATE OF SERVICE

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 12/2/05 to the person(s) listed:

Hardy Johnson, Tarmac America*
Al Townsend, Titan
Daniel Crowley, Titan
Terry Lancaster, Titan
David A. Buff, P.E., Golder
Patrick Wong, Miami-Dade DERM
Darrel Graziani, DEP SED
Jim Little, EPA Region 4
John Bunyak, National Park Service

Clerk Stamp

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


(Clerk) 12/2/05
(Date)

FINAL DETERMINATION

File No. 0250020-017-AC (PSD-FL-360)

Titan Florida Pennsuco Cement Plant
Medley, Miami-Dade County

The Department distributed a Public Notice package on October 14, 2005 for the project to increase operating hours and annual clinker production rate from 1,642,500 TPY to 2,190,000 TPY at the modernized cement plant. Titan Florida Pennsuco Cement Plant is located at 11000 NW 121 Way, Medley, Miami-Dade County. The Public Notice of Intent to Issue was published in the October 15th edition of The Miami Herald.

No requests for public meetings or administrative hearings were received on the Notice of Intent to Issue. Written comments were received from Titan. Miami-Dade DERM submitted recommended changes to the list of "Additional Reasonable Precautions for Emissions of Unconfined Particulate Matter" in Specific Condition 34. Titan's written comments are described below (*italics*) followed by the Department's responses.

The Department's representatives held teleconferences with Titan's representatives on November 8, November 19, and November 22 to fully discuss Titan's comments

SPECIFIC CONDITION NO. 4 and 25

Raw Mill and Finish Mill Monitoring

Titan proposed to modify Specific Conditions No. 4 and No. 25 by adding the following language:

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

(1) Initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan developed in accordance with paragraphs (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 visual opacity test of each stack from which visible emissions were observed in accordance with Method 9. The duration of the Method 9 test shall be thirty minutes.

This language is an applicable requirement and it was already included within the Appendix LLL of the draft permit pursuant to Section 40 CFR 63.1350(e). Department agrees to duplicate the language in Specific Conditions 4 and 25 at the request of Titan.

SPECIFIC CONDITION NO. 9

Main Stack-Pyroprocessing/Raw Mill Emission Limits

Titan's comment on Note 2 of table: When does this 30 operating day block average (for CO, VOC, and SO₂) start? If I (Titan) operate 22 days and the kiln goes down for three days, we start adding to the 22 days again (after restart) until I have 30 days.

Titan's comment on Note 3 of the table: When does this 12 month rolling average (for NO_x) start?

The Department agrees with Titan's interpretation of operating day blocks. The starting date of the 30 operating day blocks and the 12 month rolling period is January 1, 2006 and will be shown in Condition 14 to which Notes 2 and 3 of Condition 9 refer.

SPECIFIC CONDITION NO. 12

Testing Procedures and Methods

Note 1 to Table: Titan asks for clarification as follows: You (the Department) are stating here that if the RATA is within the 20% allowed by the regulations than I (Titan) do not need to do annual SO_x, NO_x, CO, or VOC testing to a reference method?

Miami-Dade DERM provided the following comments on this issue: "RATA testing is done to ensure the accuracy of Continuous Emissions Monitors (CEMS). A RATA test is passed if the results are within 20% of the referenced method or 10% of the standard. This is therefore more relaxed than a regular compliance test.

"The Draft permit is requiring annual testing for CO, SO₂, NO_x and VOC, with an option to not test if the facility passes the annual RATA test. With this option they may never do a compliance test as long as they pass RATA. To provide reasonable assurance the facility should be required to do annual RATA testing and a compliance test every 5 years."

The Department is not stating that passing a Relative Accuracy Test Audit (RATA) obviates the need for an annual compliance test. Rather, conducting a RATA provides the opportunity to use the data from the associated referenced method to fulfill the independent initial and annual compliance test requirement. The criteria for passing or failing an initial or annual compliance test using the referenced method are independent from the concurrent RATA.

It is noted that the referenced test methods specified in the permit are instrumental methods rather than wet chemistry procedures or sampling by manual Orsat equipment, etc. The CEMS are calibrated using gases of known concentration in a manner similar to the way in which the modern reference method instruments are calibrated. The two instruments are much closer in precision and accuracy than suggested by the criteria (e.g. the 20% value) developed when cruder (1960's and 1970's) referenced methods were used.

Note 1 to the table in Condition 12 will be modified to read:

1. The tests conducted annually for the relative accuracy test audit (RATA) for the CEM system may be used to satisfy this requirement provided the owner or operator satisfies the prior notification requirements and emission testing requirements of this permit for performance and compliance tests. The result from the actual referenced method (RM) test during the RATA needs to show compliance with the allowable permit emission limit.

SPECIFIC CONDITION NO. 13

Feed or Fuel Changes and D/F Performance Testing

Titan proposed to modify Specific Condition No. 13 by replacing it with the following language:

The owner or operator is required to repeat the performance tests for kilns or in-line kiln/raw mills as specified in Appendix A, 40 CFR Part 60 within 90 days of initiating any significant change in the feed or fuel from that used in the previous performance test.

The Department's representatives discussed this matter with Titan's representative. The reasons for notification prior to the changes were discussed. Titan's representative pointed out that terms in the Department's language, such as "a physical or chemical change in feed", might be construed by personnel at the plant in such a manner that changes requiring notification will occur every day.

It was agreed that the notification requirement will remain in the permit as well as the language. However, Titan requested the opportunity in the future to develop language that will be clearer to plant personnel and encompass the changes that the Department actually needs to review.

SPECIFIC CONDITION NO. 14

Continuous Emission Monitoring Systems

Titan's representative verbally advised that the location of their CO monitor is in the downcomer, which is a section between the exit of gases from the preheater and the raw mill. Titan wishes to continue using the CO monitor located in the downcomer rather than installing another CO monitor in the stack.

The Department agrees with this request. At the point in the downcomer where the CO monitor is located, there is also an oxygen monitor and an additional NO_x monitor. At the downcomer location, it is likely that CO burnout has occurred. The Department will require that the CO monitor in the downcomer be subjected to annual RATA in the same fashion as the other CEMS. The concentration of CO in the exhaust gases in the downcomer is likely to be within the deviation allowed by a RATA when compared with CO concentrations in the stack.

Reference paragraph 14 c (new paragraph 14 d). Titan's comment on Valid Hour Averages: It is our understanding of (Data Acquisition Handling Systems) that samples are collected every ten seconds (and) must have 75% of the samples to be valid. In your (Department's) description here, we (Titan) could actual take a sample at 12:00 and not have to take another sample until 12:45 which would leave thirty minutes in between each sample. I (Titan) would ask that we change this wording to be more in line with federal regulations.

The issue was discussed in detail with Titan's representative. It is not necessary to change any language in this condition. For an hourly average to be considered valid, at least two data points separated by a period of 15 minutes or more must be used to compute the hourly average. It is understood that when more than two data points are available, all available data points must be used to calculate the hourly average. However, if due to CEM system malfunction, only the two data points as described above are available, then the hour is still considered valid.

Reference paragraph 14d (new paragraph 14e). Titan's comment on Data Availability: You (Department) are stating here that as long as I (Titan) have data for 90% of my total operating time for any six-month period I do not need to submit an excess emission report? Are you sure that is how you wanted that to read. In every state I've worked in it's always been and it states in the federal regulations that I must submit excess emission reports within thirty (30) days of the end of the quarter to the local permitting agency.

In response to Titan's written and verbal comments, the Department modifies Specific Condition Nos. 14 a. to f. as follows:

SPECIFIC CONDITION NO. 14

Continuous Emission Monitoring Systems: The owner or operator shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMS) in the in-line kiln/raw mill stack to measure and record the emissions of NO_x, SO₂, CO, and VOC from the in-line kiln/raw mill, in a manner sufficient to demonstrate compliance with the emission limits of this permit. Alternatively, the CO monitor located in the downcomer (between the preheater and in-line raw mill) calibrated, maintained and operated as a CEMS may be used (in lieu of a CO CEMS located in the stack) to measure and record CO in a manner sufficient to demonstrate compliance with the emission limits for CO. The CEMS systems 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/hour, lb/ton clinker) and ppmvd as propane corrected to 7% oxygen.

- a. *Compliance Demonstration:* Compliance with the short-term emission limits for NO_x, SO₂, CO, and VOC shall be based on a 24-hour block rolling average that shall be recomputed after every valid hour as the arithmetic average of that hourly average and the preceding 23 all valid hourly averages. The 24-hour block shall begin at midnight of each operating day and shall be calculated from 24 consecutive hourly average values. If there are less than 24 hours during the block, the 24-hr block average shall be the average of all valid hourly average values available during the 24 hour block. Compliance with the long-term emission limits for SO₂, CO, and VOC shall be based on a 30 operating-day block average that shall be computed as the arithmetic average of all valid hourly averages occurring within each 30 operating-day block. For purposes of the SO₂, CO, and VOC long-term emission limits, an operating day is any day that the kiln produces clinker or fires fuel. The first 30 operating day block shall begin the first operating day on or after January 1, 2006.
- b. *(New) Compliance with the CO emission limits when using downcomer CO monitor:* Oxygen content must be measured at the location of the downcomer CO monitor. Data from the downcomer CO monitor shall be corrected to accurately reflect stack CO concentrations and to calculate mass emissions. The CO stack tests required when conducting a RATA or demonstrating initial or annual compliance shall be conducted in the in-line kiln/raw mill stack.
- c. *(Previously b) Compliance with the long-term NO_x emissions limit:* Compliance with the long-term NO_x emission limit shall be based on a 12 month rolling average that shall be recomputed each month as the arithmetic average of that month and the preceding 11 months. Each monthly average shall be computed by averaging all valid hourly averages occurring within each calendar month. The first 12 month period shall commence on January 1, 2006. No changes other than numeration from b to c .
- d. *(Previously c) Valid Hourly Average:* No changes besides numeration.
- e. *(Previously d) Data Availability:* During each semiannual (six-month) period, CEM system valid hourly averages shall be obtained for at least ~~90~~ 95 percent of the operating hours for which the plant is producing clinker. If the CEM system does not obtain valid hourly averages for 90 percent or more of the operating hours per semiannual period for which the

plant is producing clinker, the permittee shall also submit a continuous monitoring system performance report with the semiannual excess emissions and continuous monitoring system performance report. This report must include corrective actions, and it shall be submitted within 30 days following the end of each semiannual reporting period.

- f. *(Previously e) Compliance Assurance:* CEM system breakdowns, malfunctions, repairs, calibration checks, zero adjustments, and span adjustments all result in periods during which CEM system data are not obtained. During such periods in excess of ~~120 hours~~ five percent of the total operating hours per calendar quarter, the permittee shall assure compliance with the emissions standards of this permit through stack tests, alternative monitoring systems, or other methods as approved by the Department.

SPECIFIC CONDITION NO. 16

Material Balance Records of Mercury

Titan states: It should be noted that pursuant to the federal Clean Air Act (section 112(d)(1)), mercury and lead were delisted from the federal NSR program. Accordingly, any exceedances of these values do not constitute a violation of federal NSR permitting requirements.

Testing conducted on October 22, 2004 resulted in mercury and lead emissions well below the annual emission thresholds for mercury and lead identified in this paragraph. Accordingly, DERM waives testing for mercury and lead until October 22, 2009.

The Department verbally discussed this matter with Titan's representative. The Department clarified that the Environmental Regulatory Commission has determined the Department would maintain mercury as a pollutant regulated by the Department's PSD Regulations at Paragraph 62-212.400, F.A.C.

The Department advised that a single stack test is not representative of mercury emissions because of: raw materials variations and alternating enrichment and intermittent alleviation via the stack of the external mercury cycle under raw mill on and off conditions.

The Department provided via electronic mail conditions from the most recent cement kiln permits in response to Titan's concern about being more burdened with this requirement than other plants.

Titan's representative requested that the materials samples be taken at the feed silo to the kiln, but it was pointed out that this location would overestimate mercury flow because of enrichment within the external cycle. The Department agreed to provide time to Titan to develop the internal protocols to collect, homogenize, store and test raw material and fuel samples.

Titan requested to develop in the future a method to integrate these determinations into present plant sample collection procedures or conceivably develop a different method to accurately determine mercury emissions. The procedures may be developed soon enough to incorporate into the Title V Operation Permit presently under review. No changes will be made to the condition at this time except to allow commencement of the sampling program after development of the necessary protocols and by July 1, 2006.

The following language is appended to Specific Condition 16:

The first 12-month rolling period shall begin on July 1, 2006.

SPECIFIC CONDITION NO. 3, 8, 21, 24, and 28

Visible Emission Limits

Titan proposed to modify Specific Conditions No. 21, 24 and 28 by adding the 40 CFR 63, Subpart LLL language to these visible emissions conditions as follows:

(4) Procedures to be used to periodically monitor affected sources subject to opacity standards under Sections 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 [40 CFR] 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 (6) 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.

This language is an applicable requirement and it was already included within the Appendix LLL of the draft permit pursuant to Section 40 CFR 63.1350 (a)(4)(i), (ii), (iii) and (iv). Department agrees to duplicate the language in Specific Conditions 21, 24 and 28 at the request of Titan as well as in 3 and 8 that have the identical reference to Permit Appendix LLL. The following sentence that was left out of Titan's description of (4)(iv) above will be added as well:

"...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."

SPECIFIC CONDITION NO. 31

Coal Handling System

Titan commented (that directly under the table): it is stated that the opacity limit is 10%, below it states 5%. Is it 5% to 10%? Make sure it's consistent in terminology.

The Department clarifies that the limit for the common (main) stack is 10 % opacity. The limit of 5 % opacity is for all the other emission units at this Coal Handling System. No changes are required for this condition.

SPECIFIC CONDITION NO. 33

No comments were received regarding this condition. It is repeated here because of its relation to comments in the following sections.

33. Reasonable Precautions for Emissions of Unconfined Particulate Matter: This facility is subject to applicable requirements of Rule 62-296.320(4)(c)1, 2, 3, & 4, F.A.C. Refer to Appendix C: Common Conditions.

APPENDIX C, COMMON CONDITIONS, CONDITION NO. 11

No comments were received regarding this condition. It is the reference to Specific Condition 33 and rationale for Specific Conditions 34, 35, and Appendix D. It is repeated here because of its relation to the mentioned specific conditions.

11. Unconfined Emissions of Particulate Matter:

- (1) No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.
- (2) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
- (3) Reasonable precautions include the following:
 - a. Paving and maintenance of roads, parking areas and yards.
 - b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
 - c. Application of asphalt, water, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
 - d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
 - e. Landscaping or planting of vegetation.
 - f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
 - g. Confining abrasive blasting where possible.
 - h. Enclosure or covering of conveyor systems.

Additional reasonable precautions applicable to this facility are included in Section III of the Permit under Subsection: Cement Plant Fugitives Emissions and Appendix D: Fugitive Dust Improvement Plan.

- (4) 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.

[Rule 62-296.320(4)(c), F.A.C.]

SPECIFIC CONDITION NO. 35

No comments were received regarding this condition. It is repeated here because of its relation to comments in the following sections.

35. Fugitive Dust Improvement Plan: The owner or operator shall implement the Fugitive Dust Improvement Plan attached as Appendix D. The permittee shall submit quarterly progress reports to include a status report on each specific action implemented under Appendix D (part of the permit). The first quarterly report shall be submitted in January 2006, with updates every 3 months thereafter for a two-year period. The progress reports shall be submitted to the Compliance Authority (Miami-Dade County DERM).

SPECIFIC CONDITION 34 - ADDITIONAL REASONABLE PRECAUTIONS FOR EMISSIONS OF UNCONFINED PARTICULATE MATTER

Personnel

Titan's comment on 34.a: Define all plant operators? Does this mean all heavy equipment operators, all tanker drivers, all train operators? Is this strictly in the aggregate part of the plant or does it include the block and ready mix? The block and read-mix already water their stock piles continually but the pile in the aggregate facility is a little harder because the more you water them the more muck coming out of the trucks leaving the facility.

Titan subsequently recommended the following replacement language: Train all aggregate and material handling personal on visible emissions and standard operating procedures for controlling fugitive emission.

DERM recommended the following replacement language: The facility shall develop and implement a facility-wide Fugitive Dust Response Plan by March of 2006. All plant operators must be trained in visible emissions and in the facilities Fugitive Dust Response Plan and shall perform visual inspections of on-site roadways and stockpiled materials regularly and before handling. If the visual inspections indicate fugitive emissions, the observer must implement the facilities response plan.

The Department notes that there was little evidence of fugitive dust control under the old wet process operation. The superior process dust control equipment and the Fugitive Dust Improvement Plan implemented at the new dry process operation provide reasonable assurance that the project nets out of PSD for PM/PM₁₀. Condition 34.a is modified as follows:

- a. ~~All plant operators shall be trained in the facilities basic environmental compliance and shall perform visual inspections of stockpiled materials, coal and petroleum coke regularly and before handling. If the visual inspections indicate a lack of surface moisture, the materials, coal and petroleum coke shall be wetted with sprinklers. Such wetting shall continue until the potential for unconfined particulate matter emissions are minimized.~~

Aggregate and material handling personnel, their supervisors, and environmental personnel, shall be trained in visible emissions, permit conditions related to fugitive emissions, and the Best Management Practices developed by Titan to implement the Fugitive Dust Improvement Plan under Appendix D.

Condition 34 b. No comments were initially received about this condition. Titan subsequently submitted recommended changes below.

The Department agrees with Titan's recommendation. A speed limit of 5 miles per hour (mph) is difficult to discern and enforce. The training including the identification of the patterns to personnel assigned to these tasks will likely be more productive. For example, there will be specific patterns to cover the entrance to the cement plant, the ready-mix plant, and the block plant. Condition 34.u. related to water trucks is consolidated with this condition. The condition is modified as follows:

- ~~b. To effectively control dust by road sweepers, provide operators training on proper operation. Proper operation includes going slow (5 mph or less) and having the water nozzles effectively controlling dust when sweeping roads. (No change).~~

Personnel shall be trained on proper operation of wet-dry sweeper and water trucks. Training shall include but not be limited to speed, nozzle operation, and cleaning patterns around the plants that comprise the facility.

Roads

Titan's comment 34.c.: The speed limit through the plant is now 19.5 mph or less. Trying to enforce a 5 to 10 mile hour speed limit would be almost impossible. Can we just keep it the way it is and maybe add some speed humps at problem locations?

Titan subsequently submitted the following replacement language:

Maintain current speed limit of 19.5 mph and communicate to all outside hauling companies the importance of controlling visible emissions within the facility property boundaries.

DERM and the Department agree with Titan. Titan pointed out that the large quarry trucks that deliver material to the crusher are physically limited in maximum speed capability to insure adherence to the 19.5 mph speed limit. DERM recommended the following acceptable replacement language. Additional Department language is shown as double-underline.

- ~~c. Reduce speed limit (5 to 10 mph) on the unpaved haul roads to ensure effective reduction of emissions from trucks.~~

Identify areas where the installation of speed bumps would be beneficial in reducing vehicular speed and fugitive emissions. Install the additional speed bumps by June 30, 2006.

- d. Clean and maintain paved road surfaces, which includes removing silt build-up, repairing all potholes, sweeping on a daily basis and utilizing a water truck to control visible emissions.

Titan's comment 34.e.: The manufacturing area is paved and the block areas are paved areas. Which raw material road are you (Department) referring to? The one that goes from the aggregate plant to the quarry?

DERM recommended paving of the raw material road from the aggregate plant to the raw material storage area. In subsequent discussions, Titan pointed out that they have paved the previously unpaved finish mill area. The entire block plant and ready-mix plant are paved. They will construct a new entrance road as described in the Fugitive Dust Improvement Plan and pave the lime rock road from the pack house to the new entrance.

Titan claimed that it is not feasible to pave the mentioned raw material road actually large swath or path. There are large material piles along the path and a lot of material handling equipment working these areas. According to the Fugitive Dust Improvement Plan, sprinkler system shall be installed along the main haul road from the quarry to the Aggregate Plant. This will reduce fugitive PM emissions from this unpaved road.

A new entrance road will be constructed by extending 106th Avenue north along the east side of the property, just east of the old ESPs. This road improvement will be implemented in cooperation with the City of Medley. Once the entrance road is completed, the lime rock road from the pack house to 106th Avenue will be paved. This will reduce truck traffic on the Main plant entrance road (off U.S. 27), and will reduce fugitive emissions from unpaved roads.

On balance, the Department believes that the project still nets out of PSD for PM/PM₁₀. Sufficient reasonable precautions are proposed without paving the mentioned road. This matter can be reviewed as a possible reasonable precaution in the future after observing the success of the other measures described in this permit. The condition will be changed as follows:

- e. Pave the manufacturing areas in the cement plant, the block area, the ready-mix plant, ~~raw materials roads~~ and the access roadways for the facility with asphalt or concrete.
- f. Maintain dedicated berm areas that have been established throughout the facility to further reduce wind erosion from ground areas.

Condition 34 g. No comment was received from Titan about this condition.

DERM recommended to the Department that the condition be removed. Presumably this recommendation was in conjunction with the paving of the same area recommended by DERM. Since the paving of this area will not be required at this time, the condition requiring the installation of the sprinkler system along the same path will be preserved.

- g. Install a sprinkler system to reduce dust along the aggregate road between the pits and the storage building.

Titan's comment 34.h.: The area directly to the south of the entrance and the railroad track is not owned nor operated by Titan but the side to the north is owned by Titan and is an area utilized by trucks who cannot get into the facility for one reason or another but they are not blocking the entrance nor sitting out by the highway. Titan will agree to establishing more green areas within the facility but would prefer to not change that area at this time.

Titan subsequently proposed replacement language that was accepted by the Department.

The Department notes that there will be improvements to 102nd Road and 106th Avenue. On balance this represents an improvement consistent with netting out of PSD for PM/PM₁₀. The possible improvements along the main entrance can be reviewed as possible reasonable precautions in the future after observing the success of the other measures described in this permit. The condition will be changed as follows:

- h. ~~Improve the main entrance to the plant by establishing green areas between the railroad tracks and the security gate. Refer to Appendix D: Facility Fugitives Emissions Control.~~

Improve the main entrance by establishing green areas between the security gate and the main facilities.

Materials

Titan's comment 34.i.: It is impossible for Titan to store all raw and fuel material indoors. If forced to store all materials inside then production and employment will change because we will not be able to operate without significant material on the ground ready to move at any time. Titan will develop and train front loader operators that move said material in best management practices. Subsequently, Titan pointed out they no longer generate and no longer need to store additional very fine cement kiln dust outdoors.

The Department notes that prior to the modernization and the construction of an 8-acre materials storage building, virtually all material was stored outdoors. According to Titan, at least 80% of raw materials used by the cement plant is stored indoors. Although the Department does not believe "it is impossible to store all raw materials indoors", the Department believes that even with deletion of the condition, the project will still net out of PSD. This condition is modified as follows:

- i. ~~Store raw materials and fuels in a storage building, and move primarily by stacker/reclaimer and covered conveyor belts.~~

To the extent feasible, raw materials and fuels for the cement facility will be storage inside the raw material building. All material within the raw material building will be moved by stacker/reclaimer and covered conveyor belts.

Titan's comment 34.j.: Installing water spray bars sounds in the "perfect" world great, but the increase in fuels because of the moisture content of the material will increase not only emissions but production costs. Spray bars on other areas of the conveyor systems present their own set of problems like material clumping together and clogging other pieces of equipment, etc.

Titan subsequently proposed the language below as an additional permit condition to replace 34.j.

The Department accepts Titan's arguments and believes there are still sufficient reasonable precautions to net out of PSD. The recommended replacement condition is acceptable.

- j. ~~Install water spray bars at each unenclosed material and fuel conveyor. The spray bars 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.~~

All conveyors are to be enclosed on at least three sides.

Titan's comment 34.k.: Again, it creates more problem than decreasing any type of fugitive emissions.

The Department agrees with Titan comments. This condition is deleted.

- k. ~~Install water supply lines, hoses and sprinklers near all stockpiled materials, coal and petroleum coke stockpiles.~~

Titan's comment 34.l.: Again we are an aggregate facility and requesting that we store all materials under roof is impossible.

The Department believes that storage of over 80% of the cement process raw materials indoors is a substantial improvement over the previous practices and provides sufficient assurance that the project nets out of PSD. The condition will be removed.

~~l. Store all materials, coal and petroleum coke at the plant under roof on compacted clay or concrete, or in enclosed vessels.~~

Titan's comment 34.m.: Where do you want us to increase this storage area at?

The Department agrees there is sufficient covered storage area given the substantial increase over the minimal storage under wet process operation. The condition will be removed.

~~m. Increase storage area for coal handling to accommodate additional inventory.~~

Condition 34 n. No comment was initially received about this condition. Titan subsequently submitted the replacement language below.

The Department does not regulate indoor air. However, material that collects on interior walls and other surfaces (e.g. in the finish mill building) has been observed to contribute to visible emissions from open buildings. The additional language regarding the clinker production area is acceptable. The Department will clarify that the concern is visible emissions outdoors. The condition is modified as follows:

~~n. Implement a cleaning process inside buildings to minimize dust.~~

k. The facility shall continue to maintain the clinker production area and continue to implement a cleaning process inside buildings to minimize dust emitted to the outside environment.

~~o. l.~~ Unloading and reclaiming of materials will be curtailed during windy or dry conditions.

~~p. m.~~ Raw materials will be managed to minimize their time in storage.

Trucks

Condition 34 q. No comment was initially received about this condition. Titan subsequently submitted the replacement language below. In subsequent discussions, Titan requested not to require bulk transport trucks to use a wheel wash. Their contention is that bulk transport trucks are restricted solely to roads that are paved. Further they have closed other roads entering and leaving the facility thus insuring that these vehicles stay on paved roads. They also stated that there are three vehicle wash stations used by the bulk transport vehicles.

The Department agrees, given that the manufacturing areas and roads used by the bulk transport trucks have been paved. The condition is modified as follows:

~~q. Install a wheel wash system and a dewatering area at the unpaved aggregate plant entrance/exit. In addition, install sufficient wheel wash system(s) at the facility entrance/exit to ensure bulk transport trucks leaving the plant shall travel through a wheel wash that removes particulate matter from vehicle tires, before traveling on the facility's access roadways.~~

n. All trucks leaving the aggregate facility will be required to dewater and drive through the tire wash system.

Titan's comment 34.r.: Titan does not own the trucks leaving the facility and most of the trucks leaving are owned by individual companies and people. Titan can recommend that all trucks leaving the facility tarp their loads. But if the FDOT and local regulations cannot get trucks to comply with the regulations how can Titan enforce such regulations?

In subsequent discussions, Titan's representative stated that the company has riders in its contracts with transportation companies requiring adherence to the environmental regulations including the tarpaulin requirement. Titan stated they are sending memoranda reminding the companies of the requirement to comply with the tarpaulin requirement. Titan recommended the replacement language below.

This condition is modified as follows:

~~r. Cover and secure transport trucks entering and leaving the facility with tarpaulins to prevent spillage. Advise drivers and companies of need to continue compliance outside of the facility.~~

o. Titan America/Tarmac will work with all transport companies to further educate drivers in the Florida Department of Transportation requirements that all loads be tarped prior to leaving the facility.

Conditions 34 s and t.: No comments were initially received from Titan about these conditions. Subsequently DERM and Titan submitted similar language consolidating these two conditions.

The conditions are modified and consolidated as follows:

~~s. Keep trucks on concrete surfaces within the loadout and the Cement Packhouse part of the facility.~~

~~t. Use concrete or asphalt paved roads.~~

p. All trucks traveling within the cement facility should stay on asphalt or concrete surfaces. All road surfaces outside of the aggregate facility shall be constructed of concrete and/or asphalt.

Conditions 34 u.: No comments were initially received from Titan about this condition. Subsequently, Titan recommended consolidation of this condition with Condition 34.b. above.

This condition is deleted. Refer to Condition 34.b.

~~u. Use watering trucks (facility should have at least 2) and road's vacuum sweepers to serve the entire facility.~~

CONCLUSION

The final action of the Department is to issue the permit with the changes noted above.



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

PERMITTEE:

Tarmac America, LLC.
455 Fairway Drive
Deerfield Beach, Florida 33441

Permit No.	0250020-017-AC (PSD-FL-360)
Project:	Production Increase
SIC:	3241 Cement, Hydraulic
Expires:	April 30, 2006

Authorized Representative:
Hardy Johnson, President
Tarmac America LLC

PROJECT AND LOCATION:

The project is a production increase from 1,642,500 tons per year (TPY) to 2,190,000 TPY of clinker at the recently modernized dry process Titan Florida Pennsuko Cement Plant in Medley Florida. The project involves no additional physical modifications and involves removal of annual production restrictions and limitations on hours of operation on a number of emissions units.

This permit is issued pursuant to the Rules for the Prevention of Significant Deterioration (PSD). It authorizes the production increase, the various changes in hours of operation, and final emission limits including best available control technology (BACT) for carbon monoxide (CO). This permit includes certain provisions from the previous permits related to the modernization project as revised by the present project. It reflects the final as-built configuration, production limits, emissions limits, shut down of the wet process lines, applicable rules, compliance assurance provisions, etc.

The Titan Florida Pennsuko Cement Plant is located at 11000 NW 121 Way, Medley, Miami-Dade County. UTM coordinates are Zone 17; 562.8 km E; 2861.7 km N.

STATEMENT OF BASIS:

This air construction 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 above named permittee is authorized to construct/operate the facility 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).

Attached appendices and documents made a part of this permit:

Appendices A through I	Section IV of Permit - Table of Content, Appendices
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Michael G. Cooke, Director
Division of Air Resource
Management

"More Protection, Less Process"

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SECTION I. GENERAL INFORMATION

FACILITY DESCRIPTION

Tarmac America LLC operates the Titan Florida Pennsuco facility in Medley, Miami-Dade County. The facility consists of:

- A 10,000,000 tons per year (TPY) on-site limestone quarry that supplies approximately 3,000,000 TPY to the adjacent cement plant and the remainder to other users;
- A dry process portland cement plant that consumes up to 3,723,000 TPY of limestone and mineral aggregate and is permitted to produce no more than 2,190,000 TPY of clinker and approximately 2,400,000 TPY of portland cement;
- A ready-mix concrete plant; and
- An 85,000 block per day grey concrete block plant.

CEMENT PLANT DESCRIPTION

This permit relates to the dry process portland cement plant which, by this permit is permitted to increase annual production from 1,642,500 TPY to 2,190,000 TPY of clinker. Modernization of the plant included startup of the dry pyroprocessing line in 2004 and shutdown of the two wet process lines in the same year. The portland cement plant includes the following main components:

- An 8-acre, 95-foot high "A-frame" raw materials storage building (MSB);
- Raw material and fuel piles stored outside and inside of the MSB. The piles consist of blended limestone, alumina source (e.g. bauxite), iron source (e.g. mill scale), high lime limestone, coal, and petroleum coke;
- Materials handling equipment including bridge reclaimers, stackers, belt conveyors, conveyor from the MSB to the raw mill, control system/analyzer, etc.;
- An F.L. Smidth nominal 400 dry tons per hour (TPH) Model 52/4 Raw mill and F.L. Smidth nominal 15,000 ton blending silo;
- An F.L. Smidth Rotax kiln that is 65 meters long and 5 meters in diameter;
- An F.L. Smidth 5-stage "Low NO_x" in-line calciner (ILC) with sequenced fuel and air introduction and meal staging;
- An F.L. Smidth 4x5 cross bar clinker cooler;
- An F.L. Smidth Airtec ten-compartment baghouse with 690 bags per compartment;
- An F.L. Smidth nominal 35 TPH coal (and petroleum coke) mill;
- Four finish mills including a new F.L. Smidth finish mill consisting of four ball mills; and
- Cement storage, truck/rail loadout and packhouse.

RELEVANT DOCUMENTS

The construction permit application 0250020-017-AC to increase annual production was received on April 18, 2005. It was revised and made complete by a submittal dated September 30, 2005 requesting issuance of the permit pursuant to the PSD Rules at Paragraph 62-212.400, F.A.C.

The documents listed below are not part of this permit; however, they are specifically related to the modernization project and to the present permitting action:

- Construction Permit 0250020-008-AC issued October 21, 1999.
- Construction Permit 0250020-010-AC issued May 1, 2001.
- Construction Permit 0250020-016-AC issued May 31, 2005.

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

CEMENT PLANT RAW MATERIAL HANDLING SYSTEM

This system addresses the following emissions unit.

ARMS E.U. No.	DESCRIPTION
029	Raw Material Handling Operations

The raw material handling operations are controlled by the following baghouses:

EMISSION POINT	DESCRIPTION
Baghouse I.D. 311.BF650	Dust collector for limestone and mineral aggregate feed bins/conveying
Baghouse I.D. 311.BF750	Dust collector for raw material conveyance from feed bins to raw mill
Baghouse I.D. 311.BF470	Dust collector for raw material conveyance from feed bins to raw mill
Baghouse I.D. 311.BF950	Dust collector for raw material conveyance from feed bins to raw mill

Operational Requirements

1. Hours of Operation: This emissions unit system is allowed to operate 8,760 hours per year. [Application received April 18, 2005]
2. Raw Material Handling System Throughput Specification: The maximum dry throughput rate is 3,723,000 TPY. The owner or operator shall record all throughput rates on a rolling 12-month basis, and maintain records for a minimum of 5 years. [Application received April 18, 2005; Permit 0250020-016-AC; Rules 62-4.070(3); and 62-213.440, F.A.C.]

Emissions Limitations and Performance Standards

3. Visible Emissions Limits: Visible emissions are limited to 5 percent from each of the above listed baghouses. Compliance shall be determined in the manner described in 40 CFR 63.1350(a)(4)(i), (ii), (iii) and (iv) below except that the applicable standard is 5% instead of 10%.
 - (4) Procedures to be used to periodically monitor affected sources subject to opacity standards under Sections 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 [40 CFR] 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 (6) consecutive monthly tests.

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

- (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.

{Note: The applicant advised that the baghouses are designed to control particulate emissions to 0.0095 grains/dry standard cubic foot (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 13 TPY. This annual emission estimate is part of the facility-wide netting calculation to escape PSD applicability for PM/PM₁₀. 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]

4. **Raw Mill Monitoring:** The owner or operator of a raw mill shall monitor opacity by conducting daily visual emissions observations of the mill sweep and air separator PMCDs (PM control devices) of these affected sources, in accordance with the procedures of Method 22 of Appendix A, 40 CFR Part 60 and as required by 40 CFR 63.1350(e), Subpart LLL.

Pursuant to 40 CFR 63.1350(e):

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

- (1) Initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan developed in accordance with paragraphs (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 visual opacity test of each stack from which visible emissions were observed in accordance with Method 9. The duration of the Method 9 test shall be thirty minutes.

[Rules 62-4.070(3) and 40 CFR 63.1350, Monitoring Requirements]

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

CEMENT PLANT PYROPROCESSING AND RAW MILL SYSTEM

This system addresses the following emissions unit.

ARMS E.U. No.	DESCRIPTION
026	Pyroprocessing and Raw Mill System Operations

The pyroprocessing and raw mill system are controlled by the following baghouses:

EMISSION POINT	DESCRIPTION
Baghouse I.D: 331.BF200	Main Stack & dust collector for preheater/kiln/cooler/raw mill/coal mill
Baghouse I.D: 331.BF740	Dust collector for kiln dust conveyance and storage bin
Baghouse I.D: 341.BF350	Dust collector for preheater feed silo
Baghouse I.D: 351.BF440	Dust collector for raw meal conveyance from feed silo to preheater
Baghouse I.D: 351.BF470	Dust collector for raw meal conveyance from feed silo to preheater
Baghouse I.D: 331.BF645	Dust collector for truck loadout of kiln dust

Operational Requirements

- Hours of Operation:** This emissions unit system is allowed to operate 8760 hours per year. [Applicant request - application received April 18, 2005, Rule 62-210.200, F.A.C., Definitions – Potential to Emit (PTE)]
- Pyroprocessing System Production Limits:** The maximum production of clinker shall not exceed 250 TPH on a 24-hour block average and 2,190,000 TPY. [Rule 62-210.200, (Definitions – Potential to Emit), F.A.C.; Applicant request in application received April 18, 2005]
- Fuels:** Allowable fuels fired in the pyroprocessing/raw mill emission unit consist of natural gas, bituminous coal, petroleum coke, No. 2 fuel oil with used oil blend and No. 6 fuel oil with used oil blend. Fuel oil includes on-spec used oil (refer to definition in specific condition 15).

{There is no heat input limitation. For reference, the design heat input capacities of the kiln burner and calciner burner are 290 million Btu per hour (mmBtu/hr) and 385 mmBtu/hr respectively. The clinker production limit effectively limits PTE.}

Emissions Limitations and Performance Standards

- Visible Emissions Limits:** Visible emissions are limited to 5 percent from each of the above listed baghouses, except for the main stack baghouse, I.D.331.BF200. Compliance shall be determined in the manner described in 40 CFR 63.1350(a)(4)(i), (ii), (iii) and (iv) below except that the applicable standard is 5% instead of 10%.
 - Procedures to be used to periodically monitor affected sources subject to opacity standards under Sections 63.1346 and 63.1348. Such procedures must include the provisions of Paragraphs (a)(4)(i) through (a)(4)(iv) of this section.
 - The owner or operator must conduct a monthly 1-minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to [40 CFR] Part 60 of this chapter. The test must be conducted while the affected source is in operation.

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

- (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 (6) 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.

{Note: The applicant advised that the baghouses are designed to control particulate emissions to 0.0095 grains/dry standard cubic foot (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, except for the *main stack*, in this emission unit system will be less than 7 TPY. This annual emission estimate is part of the facility-wide netting calculation to escape PSD applicability for PM/PM₁₀. 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 UNITS SPECIFIC CONDITIONS

9. Main Stack - Pyroprocessing/Raw Mill Emission Limits: Emissions exiting the main stack from the Pyroprocessing/Raw Mill system shall not exceed the limits shown in the following table:

PARAMETER	EMISSION LIMIT	AVERAGING TIME	COMPLIANCE METHOD	LIMIT BASIS
Opacity ⁶	10 Percent	6 minute block	COMS, Method 9	PTE, Avoid PSD 40 CFR Subpart LLL
PM ⁶	0.067 lb/ton of dry kiln feed	3 hours ⁵	Annual Method 5	PTE, Avoid PSD 40 CFR Subpart LLL
	28.5 lb/hr			
PM ₁₀ ⁶	0.056 lb/ton of dry kiln feed	3 hours ⁵	Annual Method 5	PTE, Avoid PSD 40 CFR Subpart LLL
	23.9 lb/hr			
SO ₂	0.50 lb/ton of clinker	30 days ²	CEMS	PTE, Avoid PSD
	320 lb/hour	24 hours ¹		
NO _x (as NO ₂)	2.17 lb/ton of clinker	12-months ³	CEMS	PTE, Avoid PSD
	720 lb/hour	24 hours ¹		
CO	2.0 lb/ton of clinker	30 days ²	CEMS	BACT
	576 lb/hour ¹	24 hours ¹		
VOC ⁴	0.16 lb/ton of clinker ²	30 days ²	CEMS	PTE, Avoid PSD
	40 lb/hour	24 hours ¹		
Mercury (Hg)	229 lb/yr (base + 199 lb/yr)	12-month	Fuels, Materials ⁸	PTE, Avoid PSD
Temperature ⁷	Baghouse Temperature (T) ≤ T during Dioxin/Furan Tests	Continuous		40 CFR 63, Subpart LLL
Dioxin/Furan	0.2 ng TEQ/dscm (T≥204 °C)	3 hours	30 Months, Method 23	40 CFR 63, Subpart LLL
	0.4 ng TEQ/dscm (T<204 °C)			

- 1 Compliance with the short-term emission limit for SO₂, NO_x, CO, and VOC shall be based on a 24-hour block average computed in accordance with Specific Condition 14. Compliance with lb/hr SO₂ emissions limitations in this condition will insure compliance with Miami-Dade County Code, Section 24-17(2)(a) limiting emissions to 1.2 lb SO₂/MMBtu heat input when solid fuel is fired, or 0.8 lb SO₂/MMBtu heat input when liquid fuel is fired, based on a 24 hour average
- 2 Compliance with the long-term emission limit for SO₂, CO, and VOC shall be based on a 30 operating-day block average computed in accordance with Specific Condition 14.
- 3 Compliance with the long-term emission limit for NO_x shall be based on 12 month rolling average computed in accordance with Specific Condition 14.
- 4 VOC emissions shall be expressed as propane.
- 5 The averaging times for PM and PM₁₀ correspond to the required length of sampling for the initial and subsequent emission tests. Compliance demonstration with these limits shall be conducted pursuant to 40 CFR 63.1349(b)(1).
- 6 Compliance with the Opacity, PM and PM₁₀ permit limits given for in-line kiln/raw mill will insure compliance with applicable limits from 40 CFR 63, Subpart LLL for the in-line kiln/raw mill, and clinker cooler, and 40 CFR 60, Subpart Y for the coal mill.
- 7 The temperature requirements for the operation of in-line kiln/raw mill are in accordance with 40 CFR 63.1344(a) & (b), and 63.1349(b)(3)(iv).
- 8 Determined by raw materials and fuels entering the process. Refer to Condition 10.

[Applicant BACT information for CO and request to escape PSD for other criteria pollutants; Rules 62-4.070(3) and 62-212.400, F.A.C.; 40 CFR 63.1343 and 63.1345; Application received April 18, 2005 and revised September 30, 2005].

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

{Permitting Note: For compliance with the long term CO, NO_x, SO₂, and VOC limits (30-day block and 12-month rolling averages), the averaging periods shall begin January 1, 2006.}

10. Mercury Emissions from the Pyroprocessing/Raw Mill System: Mercury emissions exiting the main stack from the Pyroprocessing/Raw Mill system shall not exceed 229 pounds per year on a 12-month rolling basis. Mercury

[Rules 62-4.070(3) and 62-210.200, F.A.C. (definitions – Potential to Emit), Avoid PSD]

Test Methods, Monitoring and Procedures

11. Determination of Clinker Production Rate during Testing: Prior to any emission testing to demonstrate compliance with any emission limit, the permittee shall determine the clinker production rate for the test according to the equation in Specific Condition 18. The permittee shall notify the DERM of the preheater kiln feed rate and the factor used to determine the clinker production rate in advance of the commencement of any test(s). The rate of clinker production shall be used to determine compliance with all clinker-based emission limits in the permit for that test.

[DERM Requirement. Rule 62-4.070(3), F.A.C.]

12. Testing Procedures and Methods: In addition to the CEMS or COMS compliance requirements listed in Condition 10, the main stack & dust collector, Baghouse I.D. 331.BF200, serving the preheater/kiln/cooler/raw mill/coal mill shall be tested according to the EPA Methods and at the frequencies listed below:

POLLUTANT	TEST METHOD	FREQUENCY
PM/PM ₁₀	5	Annual
Opacity	9	Annual
SO ₂	6 or 6C	Annual ¹
NO _x (as NO ₂)	7 or 7E	Annual ¹
CO	10	Annual ¹
VOC	25 or 25A	Annual ¹
Dioxins/Furans	23	30 months

1. The tests conducted annually for the relative accuracy test audit (RATA) for the CEM system may be used to satisfy this requirement provided the owner or operator satisfies the prior notification requirements and emission testing requirements of this permit for performance and compliance tests. The result from the actual referenced method (RM) test during the RATA needs to show compliance with the allowable permit emission limit.

[Rules 62-4.070(3), 62-297.310(7), and 62-212.400, F.A.C.; Permit 0250020-016-AC]

13. Feed or Fuel Changes and D/F Performance Testing: 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 D/F or PM. 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 loss on ignition (LOI) characteristic of the fly ash; a change between non-beneficiated fly ash and beneficiated fly 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 emission limits.

[62-4.070(3), F.A.C.]

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

14. Continuous Emission Monitoring Systems: The owner or operator shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMS) in the in-line kiln/raw mill stack to measure and record the emissions of NO_x, SO₂, CO, and VOC from the in-line kiln/raw mill, in a manner sufficient to demonstrate compliance with the emission limits of this permit. Alternatively, the CO monitor located in the downcomer (between the preheater and in-line raw mill) calibrated, maintained and operated as a CEMS may be used (in lieu of a CO CEMS located in the stack) to measure and record CO in a manner sufficient to demonstrate compliance with the emission limits for CO. The CEMS systems 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/hour, lb/ton clinker) and ppmvd as propane corrected to 7% oxygen.
- a. *Compliance Demonstration*: Compliance with the short-term emission limits for NO_x, SO₂, CO, and VOC shall be based on a 24-hour block average. The 24-hour block shall begin at midnight of each operating day and shall be calculated from 24 consecutive hourly average values. If there are less than 24 hours during the block, the 24-hr block average shall be the average of all valid hourly average values available during the 24 hour block. Compliance with the long-term emission limits for SO₂, CO, and VOC shall be based on a 30 operating-day block average that shall be computed as the arithmetic average of all valid hourly averages occurring within each 30 operating-day block. For purposes of the SO₂, CO, and VOC long-term emission limits, an operating day is any day that the kiln produces clinker or fires fuel. The first 30 operating day block shall begin the first operating day on or after January 1, 2006.
 - b. *Compliance with the CO emission limits when using downcomer CO monitor*: Oxygen content must be measured at the location of the downcomer CO monitor. Data from the downcomer CO monitor shall be corrected to accurately reflect stack CO concentrations and to calculate mass emissions. The CO stack tests required when conducting a RATA or demonstrating initial or annual compliance shall be conducted in the in-line kiln/raw mill stack.
 - c. *Compliance with the long-term NO_x emissions limit*: Compliance with the long-term NO_x emission limit shall be based on a 12 month rolling average that shall be recomputed each month as the arithmetic average of that month and the preceding 11 months. Each monthly average shall be computed by averaging all valid hourly averages occurring within each calendar month. The first 12 month period shall commence on January 1, 2006.
 - d. *Valid Hourly Averages*: Each hourly average shall be computed as the arithmetic average of the data points generated by the CEM system. Data points must be generated at least once per minute. For an hourly average to be considered valid, at least two data points separated by a period of 15 minutes or more must be used to compute the hourly average.
 - Hours during which there is no preheater feed and no fuel fired to the kiln systems are not valid.
 - 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 dry preheater feed or pounds per ton of clinker). These hours are included in any pollutant mass emission rate computation (pounds per hour).
 - e. *Data Availability*: During each semiannual (six-month) period, CEM system valid hourly averages shall be obtained for at least 95 percent of the operating hours for which the plant is producing clinker. If the CEM system does not obtain valid hourly averages for 90 percent or more of the operating hours per semiannual period for which the plant is producing clinker, the permittee shall also submit a continuous monitoring system performance report with the semiannual excess emissions report. This report must include corrective actions, and it shall be submitted within 30 days following the end of each semiannual reporting period.

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

- f. *Compliance Assurance*: CEM system breakdowns, malfunctions, repairs, calibration checks, zero adjustments, and span adjustments all result in periods during which CEM system data are not obtained. During such periods in excess of five percent of the total operating hours per calendar quarter, the permittee shall assure compliance with the emissions standards of this permit through stack tests, alternative monitoring systems, or other methods as approved by the Department.
15. Continuous Emissions Monitor System (CEMS) Requirements: All CEM systems shall be installed, operational, recording and continuously transmitting available data prior to the initial startup of the kiln and shall be certified within 60 days after achieving the maximum production rate at which the plant will be operated, but not later than 180 days after initial startup. The monitoring systems shall be certified in accordance with the appropriate Performance Specification in 40 CFR 60 Appendix B. The systems shall comply with the requirements for continuous monitoring systems found in the general provisions of 40 CFR 63, Subpart A including development of a quality control program. Data on monitoring equipment specifications, manufacturer, type calibration and maintenance requirements, and the proposed location of each monitor shall be provided to the DERM for review at least 45 days prior to replacement of any CEMS. [Rules 62-4.070 (3) and 62-204.800, F.A.C.]
16. Material Balance Records of Mercury: The owner or operator shall demonstrate compliance with the mercury throughput limitation by material balance and making and maintaining records of monthly and rolling 12-month mercury throughput. The owner or operator shall, for each month of sampling required by this condition, perform daily sampling of the raw mill feed, coal, petroleum coke, and fuel oil and shall composite the daily samples each month, and shall analyze the monthly composite sample to determine mercury content of these materials for the month. The owner or operator shall determine the mass of mercury introduced into the pyroprocessing system (in units of pounds per month) from the total of the product of the mercury content from the monthly composite analysis and the mass of each material or fuel used during the month. The consecutive 12-month record shall be determined from the individual monthly records for the current month and the preceding eleven months and shall be expressed in units of pounds of mercury per consecutive 12-month period. Such records shall be completed no later than 25 days following the month of the records. The first 12-month rolling period shall begin on July 1, 2006.

[Rule 62-4.070(3), F.A.C.]

On-Specification Used Fuel Oil

17. Limits and Test Methods Applicable to On-Spec Fuel Oil:

- a. "Non-hazardous on-specification" used oil is defined as each used oil delivery that meets the 40 CFR 279 (Standards for the Management of Used Oil) specifications listed below. Used oil that does not meet all of the following specifications shall not be fired.

CONSTITUENT/PROPERTY	LIMIT	TEST METHOD ²
Arsenic	5 ppm	EPA SW-846 (3040-7130)
Cadmium	2 ppm	EPA SW-846 (3040-7130)
Chromium	10 ppm	EPA SW-846 (3040-7130)
Lead	100 ppm	EPA SW-846 (3040-7130)
Total Halogens	<1000 ppm ¹	ASTM E442
PCBs	<50 ppm	ASTM D4059
Flash Point	100 °F (minimum)	ASTM D93

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Sulfur	% by weight (informational)	ASTM D2622, D4294-90, or both D4057-88 & D129-91
Heat of Combustion	Btu/gal (informational)	ASTM D240-76
Density	Lb/gal (informational)	ASTM D1298-80

1. 40 CFR 279.10(b)(1) (ii) *Rebuttable presumption for used oil.* Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of 40 CFR part 261. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of 40 CFR part 261). EPA Publication SW-846, Third Edition, is available from the Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954, (202) 512-1800 (document number 955-001-00000-1"). If successfully rebutted for used oil up to 4000 ppm total halogens, used oil up to 4000 ppm maximum total halogens may be fired.

2. Other test methods may be used only after receiving written approval from the DERM.

b. *Analysis of used oil fuel.* The permittee may determine that the used oil to be burned for energy recovery meets the fuel specifications of §279.11 by performing analyses, or obtaining copies of analyses or other information, documenting that the used oil fuel meets the specifications.

c. *Record retention.* The permittee must keep copies of analyses of the used oil (or other information used to make the determination) for five years.

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

e. *Submittal of Samples.* The results of each sample analysis (on the laboratory's letterhead) shall be submitted to the DERM within 30-days after the sample is taken and analyzed.

f. The results of each sample analysis (on the laboratory's letterhead) shall be submitted to the DERM within 30 days after a sample is taken and analyzed.

[DERM requirements. Rule 62-4.070(3), F.A.C., 40 CFR 279.11, which is adopted by reference in Rule 62-710.210(2), F.A.C., 40 CFR 279.72, 40 CFR 63.1343 and 63.1345, Application received April 18, 2005]

18. **Used Oil Usage Records:** In order to document compliance with the used oil limitations, the following requirements shall be adhered to as a minimum:

a. *Transfers to Storage Tank.* The dates and quantities of both on-specification used oil and purchased fuel oil transferred to the in-line kiln/raw mill's storage tank shall be reported quarterly (i.e., Jan.-Mar., April-June, July-Sept., and Oct.-Dec.) to the DERM and due during the month following the ending quarter.

b. *Recordkeeping.* When burning used oil, records shall be maintained in accordance with applicable provisions of 40 CFR 279, Subpart B and Subpart G (July 1, 1996 version), Standards For The Management of Used Oil and Chapter 62-710, F.A.C.

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

- c. *Delivery Receipts.* The following shall be recorded on the delivery receipt:
- the use of tamper proof seals on the delivery receipt
 - the volume of fuel delivery
 - a cross reference to the analysis which establishes that the used oil meets EPA used oil fuel specifications
 - the results of the screening analysis
 - the name of the person performing the test
 - the specific test kit used
 - the amount of oil sampled
 - the amount and name of the solution used to dilute the oil
- d. *Delivery Procedures.* The following procedures shall be implemented:
- On and off specification used oil that is delivered without a delivery receipt containing all the above information, or which is not properly sealed, or for which the delivery receipt does not contain all the necessary information, is not to be accepted and the DERM is to be notified by phone immediately (with written confirmation to follow), if such a delivery is attempted.
 - Verification by signature on the delivery receipt shall be provided by plant personnel that the delivery truck arrived on site with all seals intact. As delivered samples of all used oil fuel received shall be accumulated through each quarter for each supplier.

[DERM Requirements, Rule 62-4.070 (3) F.A.C]

Process and Production Recordkeeping

19. Production Rate Recording: The owner or operator shall record the preheater kiln feed rate using the F.L. Smidth automated preheater feed weighing device and record the daily clinker production. The clinker production rate for the purposes of determining compliance with Specific Condition 6, shall be determined as the product of Preheater Kiln Feed and the Loss on Ignition (LOI) factor. LOI for the preheater kiln feed is 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 fires fuel. The calculation shall be expanded as need to consider the additional feed points and LOI.

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

CEMENT PLANT CLINKER HANDLING & STORAGE SYSTEM

This system addresses the following emissions unit.

ARMS E.U. No.	DESCRIPTION
027	Clinker Handling & Storage System

The clinker handling operations are controlled by the following baghouses:

EMISSION POINT	DESCRIPTION
Baghouse I. D: 441.BF540	Conveyance/transfer from cooler to new clinker silos and off-spec silo
Baghouse I. D: 481.BF140	Conveyance/transfer/storage for new clinker silos and off-spec silo
Baghouse I. D: 481.BF330	Storage from off-spec silo and conveyance from new clinker silos
Baghouse I. D: 481.BF540	Conveyance from new clinker silos and off-spec silo to old clinker storage
Baghouse I. D: 481.BF640	Conveyance from new clinker and off-spec silos to old clinker storage area
Baghouse I. D: 481.BF730	Conveyance/transfer to old clinker area and storage clinker silos 2,5,17,18
Baghouse I. D: 481.BF930	Storage clinker silos 21, 22, 23, 26, 27, 28
Baghouse I.D: F-633	Storage clinker silos 12, 19, 20

Operational Requirements

20. Hours of Operation: This emissions unit is allowed to operate 8760 hours per year. Production is automatically limited by the clinker production limits established in Specific Condition 6 for the pyroprocessing system. [Applicant request. Application received April 18, 2005]

Emissions Limitations and Performance Standards

21. Visible Emissions Limits: Visible emissions are limited to 5 percent from each of the above listed baghouses. Compliance shall be determined in the manner described in 40 CFR 63.1350(a)(4)(i), (ii), (iii) and (iv) below except that the applicable standard is 5% instead of 10%.

- (4) Procedures to be used to periodically monitor affected sources subject to opacity standards under Sections 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 [40 CFR] 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 (6) consecutive monthly tests.

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

- (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.

{Note: The applicant advised that the baghouses are designed to control particulate emissions to 0.0095 grains/dry standard cubic foot (gr/dscf) and 0.01 gr/acf (Baghouse F-633). 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 19.70 TPY. This annual emission estimate is part of the facility-wide netting calculation to escape PSD applicability for PM/PM₁₀. 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]}

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

CEMENT PLANT PRODUCTS STORAGE SILOS/ PACKHOUSE/ LOADOUT SYSTEM

This system addresses the following emissions units.

ARMS E.U. No.	DESCRIPTION
014	Cement Storage
015	Cement Distribution Rail/Truck Loadout
016	Cement Packhouse

The cement handling operations are controlled by the following baghouses:

EMISSION POINT	DESCRIPTION
Baghouse I.D. F-511	Dust collector - Cement Silos 1-6
Baghouse I.D. F-512	Dust collector - Cement Silos 7-9
Baghouse I.D. F-513	Dust collector - Cement Silo 10
Baghouse I.D. F-514	Dust collector - Cement Silo 11
Baghouse I.D. F-515	Dust collector - Cement Silo 12
Baghouse I.D. B-110	Dust collector - Bulk Loadout Unit 1 (Rail/Truck).
Baghouse I.D. B-210	Dust collector - Bulk Loadout Unit 2 (Truck).
Baghouse I.D. B-372	Dust collector - Bulk Loadout Unit 3 - Line 1
Baghouse I.D. B-374	Dust collector - Bulk Loadout Unit 3 - Line 2
Baghouse I.D. B-382	Dust collector - Bulk Loadout Unit 3 - Line 3
Baghouse I.D. B-120	Dust collector - Packhouse
Baghouse I.D. B-205	Dust collector - Packhouse
Baghouse I.D. B-400	Dust collector - Packhouse

Operational Requirements

- 26. Hours of Operation: These emissions units are allowed to operate 8,760 hours per year. [Requested by applicant April 18, 2005. Permit 0250020-016-AC]
- 27. Cement Storage Silo/Packhouse/Loadout Process and Production Design Specifications: The maximum process input rate to each cement silo and loadout operation is 500 TPH on a 24-hour block average. The maximum production rate of cement in the Packhouse is 170 TPH on a 24-hour block average. [Permit 0250020-016-AC. Requested by applicant April 18, 2005]

Emissions Limitations and Performance Standards

- 28. Visible Emissions Limits: Visible emissions are limited to 5 percent from each of the above listed baghouses. Compliance shall be determined in the manner described in 40 CFR 63, Section 63.1350(a)(4)(i), (ii), (iii) and (iv) below except that the applicable standard is 5% instead of 10%.
 - (4) Procedures to be used to periodically monitor affected sources subject to opacity standards under Sections 63.1346 and 63.1348. Such procedures must include the provisions of Paragraphs (a)(4)(i) through (a)(4)(iv) of this section.

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

- (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 [40 CFR] 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 (6) 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.

{Note: The applicant advised that the baghouses are designed to control particulate emissions to 0.01 grains/actual cubic foot (gr/acf). 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 31.24 TPY. This annual emission estimate is part of the facility-wide netting calculation to escape PSD applicability for PM/PM₁₀. 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]

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

CEMENT PLANT COAL HANDLING SYSTEM

This system addresses the following emissions unit.

ARMS E.U. No.	DESCRIPTION
026	Coal and Petroleum Coke Handling System

The provisions of 40 CFR 60 Subpart Y, Standards of Performance for Coal Preparation Plants and 40 CFR 60, Subpart A- General Provisions are applicable to this process emissions unit system (Appendix H attached).

The coal handling operations are controlled by the following baghouses:

EMISSION POINT	DESCRIPTION
Baghouse I.D. 461-BF300	Coal Mill ¹
Baghouse I.D. 461-BF130	Dump Hopper (Transfer)
Baghouse I.D. 461-BF230	Conveyors (2) (Transfer) & Coal/Petroleum Coke Feed Bins
Baghouse I.D. 461-BF750	Coke/Petroleum Coke (Transfer) Surge Bin Feeder).
Baghouse I.D. 461-BF650	Coal (Transfer) / Surge Bin (Feeder)
Baghouse I.D. 461.BF350	Coal Mill Feed

1. This emissions unit discharges to the common (main) stack. The Clinker Cooler which is limited to 10% opacity, discharges to the common (main) stack and therefore determines the opacity limit for this emissions unit. Total PM/PM₁₀ emissions from Pyroprocessing/Raw Mill/Coal Mill Systems shall not exceed 130.3 and 109.5 TPY respectively.

All of the above process emissions units, except for the dump hopper with baghouse 461-BF130, are subject to 40 CFR 60, Subpart Y, NSPS for Coal Preparation Plants (Appendix H attached).

Operational Requirements

29. Hours of Operation: This emissions unit system is allowed to operate 8,760 hours per year. [Application submitted in April 18, 2005]
30. Coal/Petroleum Coke Maximum Usage: The maximum combined usage of coal and petroleum coke is 30 TPH on a 24-hour block average and 263,000 TPY. The maximum petroleum coke usage rate shall not exceed 20 TPH on a 24-hour block average. Daily records of usage must be kept on site and retained for a minimum of 5 years.
[Rule 62-210.200 & 62-4.070(3) F.A.C., Applicant request; Rule 62-4.070(3), F.A.C.]

Emissions Limitations and Performance Standards

31. Visible Emissions Limits: Visible emissions are limited to 5 percent from each of the above listed baghouses. Compliance shall be demonstrated by EPA Reference Method 9 and the procedures specified in 40 CFR 60.11.

For the coal mill main, baghouse 461-BF300, the opacity shall not exceed 10%. Compliance shall be demonstrated pursuant to EPA Reference Method 9. Annual emissions of PM/PM₁₀ for the kiln/cooler/coal mill main stack shall not exceed 110 TPY

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

{Note: The applicant advised that the baghouses are designed to control particulate emissions to 0.0095 grains/dry standard cubic foot (gr/dscf) and to 0.01 grains/actual cubic foot (gr/acf) (for baghouses 461-BF300; 461.BF350). 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 3.10 TPY. This annual emission estimate is part of the facility-wide netting calculation to escape PSD applicability for PM/PM₁₀. 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 60, Subpart Y}

[40 CFR 60, Subpart Y; Rules 62-297.620(4), F.A.C., 62-4.070(3), and 62-212.400, F.A.C. and 40 CFR 63.1348]

32. Particulate and Fugitive Emissions: Particulate and fugitive emissions from coal handling facilities shall be minimized by following the procedures listed below:

- a. All conveyers and transfer points shall be enclosed or covered to preclude particulate emissions (except those directly associated with coal stacking/reclaiming).
- b. Coal storage piles shall be shaped, compacted and oriented to minimize wind erosion.
- c. Water sprays or chemical wetting agents and stabilizers shall be applied to storage piles, handling equipment, etc., during dry periods as necessary to all facilities to maintain an opacity of less than 20 percent at the property line for fugitive emission sources.

[Rule 62-296.320(4)(c), F.A.C.; 62-4.070(3)]

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

CEMENT PLANT FUGITIVE EMISSIONS

This system addresses the following emissions unit.

ARMS E.U. No.	DESCRIPTION
031	Fugitive Emissions – Transportation, Miscellaneous Transfers, and Storage

Unregulated Emissions Unit and/or Activities. This is an emissions unit which emits no “emissions-limited pollutant” and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

Vehicular traffic and coal, petcoke, and raw material transfer points generate fugitive PM emissions from the handling, transfer, and storage between the unloading areas and the storage building. The activities are listed in the following table:

ACTIVITY	DESCRIPTION	ESTIMATED EMISSIONS (PM and PM ₁₀) ¹
Coal Handling	Drop Operations	0.17 and 0.059 TPY
Coal Handling	Vehicular Traffic	6.9 and 2.4 TPY
Raw Material Blending	Drop Operations	1.6 and 0.6 TPY
Raw Material Blending	Vehicular Traffic	14 and 4.9 TPY
Total Quantifiable Emissions	Fugitive Emissions	23 and 8 TPY

1. The estimates given were included in calculations by the applicant demonstrating that the modernization and production increase projects do not trigger PSD. It is not practicable to actually measure the emissions directly. Reasonable assurance that these emissions are controlled to the levels given above is by adherence to the Reasonable Precautions listed below.

[Application received April 18, 2005; Rule 62-4.070(3), F.A.C.]

33. Reasonable Precautions for Emissions of Unconfined Particulate Matter: This facility is subject to applicable requirements of Rule 62-296.320(4)(c)1, 2, 3, & 4, F.A.C. Refer to Appendix C: Common Conditions.
34. Additional Reasonable Precautions for Emissions of Unconfined Particulate Matter: Pursuant to Rule 62-296.320(4)(c)2, F.A.C, the permittee shall implement the following additional reasonable precautions at this facility:

PERSONNEL

- a. Aggregate and material handling personnel, their supervisors, and environmental personnel, shall be trained in visible emissions, permit conditions related to fugitive emissions, and the Best Management Practices developed by Titan to implement the Fugitive Dust Improvement Plan under Appendix D.
- b. Personnel shall be trained on proper operation of wet-dry sweeper and water trucks. Training shall include but not be limited to speed, nozzle operation, and cleaning patterns around the plants that comprise the facility.

ROADS

- c. Identify areas where the installation of speed bumps would be beneficial in reducing vehicular speed and fugitive emissions. Install the additional speed bumps by June 30, 2006.

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

- d. Clean and maintain paved road surfaces, which includes removing silt build-up, repairing all potholes, sweeping on a daily basis and utilizing a water truck to control visible emissions.
- e. Pave the manufacturing areas in the cement plant, the block area, the ready-mix plant, and the access roadways for the facility with asphalt or concrete.
- f. Maintain dedicated berm areas that have been established throughout the facility to further reduce wind erosion from ground areas.
- g. Install a sprinkler system to reduce dust along the aggregate road between the pits and the storage building.
- h. Improve the main entrance by establishing green areas between the security gate and the main facilities.

MATERIALS

- i. To the extent feasible, raw materials and fuels for the cement facility will be storage inside the raw material building. All material within the raw material building will be moved by stacker/reclaimer and covered conveyor belts.
- j. All conveyors are to be enclosed on at least three sides.
- k. The facility shall continue to maintain the clinker production area and continue to implement a cleaning process inside buildings to minimize dust emitted to the outside environment.
- l. Unloading and reclaiming of materials will be curtailed during windy or dry conditions.
- m. Raw materials will be managed to minimize their time in storage.

TRUCKS

- n. All trucks leaving the aggregate facility will be required to dewater and drive through the tire wash system.
- o. Titan America/Tarmac will work with all transport companies to further educate drivers in the Florida Department of Transportation requirements that all loads be tarped prior to leaving the facility.
- p. All trucks traveling within the cement facility should stay on asphalt or concrete surfaces. All road surfaces outside of the aggregate facility shall be constructed of concrete and/or asphalt.

[Rule 62-296.320(4)(c)2., F.A.C., Rule 62-4.070(3)F.A.C., Application received April 18, 2005 and, Fugitive Dust Improvement Plan dated August 19, 2005]

35. Fugitive Dust Improvement Plan: The owner or operator shall implement the Fugitive Dust Improvement Plan attached as Appendix D. The permittee shall submit quarterly progress reports to include a status report on each specific action implemented under Appendix D (part of the permit). The first quarterly report shall be submitted in January 2006, with updates every 3 months thereafter for a two-year period. The progress reports shall be submitted to the Compliance Authority (Miami-Dade County DERM).

SECTION IV FACILITY COMMON CONDITIONS

CEMENT PLANT EMISSIONS UNITS APPLICABLE RULES COMMON CONDITIONS

The following conditions are applicable to the following emissions units as required:

ARMS Emission Unit No.	EMISSION UNIT DESCRIPTION
010	Finish Mill No. 1
012	Finish Mill No. 3
013	Finish Mill No. 4
030	Finish Mill No. 6
014	Cement Storage Silos 1 through 12
015	Cement Distribution, Rail and Truck Loadout
016	Cement Packhouse
026	Coal Handling System
027	Clinker Handling and Storage
028	Raw Mill and Pyroprocessing System
029	Raw Material Handling

36. All of the listed emission units have at least one component that is subject to 40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry. The listed emission units shall comply with Subpart LLL only to the extent that the regulations apply to the facility or its operations.
37. Some of the listed emission units have at least one component that was subject to 40 CFR 60, Subpart F - Standards of Performance for Portland Cement Plants (NSPS) when originally constructed. The listed emission units shall comply with Subpart F only to the extent that the applicable Subpart F requirements were not subsumed by 40 CFR 63, Subpart LLL.
38. The listed emission units shall comply with 40 CFR 60 Subpart A, General Provisions and 40 CFR 63, Subpart A, General Provisions only to the extent that the requirements apply to the facility or its operations.
39. Emissions Units 027 and 028 are subject to Rule 62-296.701, F.A.C., Portland Cement Plants. Emissions Unit 026 is subject to 40 CFR 60 Subpart Y, Standards of Performance for Coal Preparation Plants.
40. 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.]

{This facility modification avoided preconstruction review pursuant to Paragraph 62-212.400, F.A.C., except for CO, by taking federally enforceable limitations on the capacity to emit certain criteria pollutants from each of the emission units listed above.}

SECTION IV FACILITY COMMON CONDITIONS

The Department adopted the provisions of the referenced NSPS and NESHAPS regulations from 40 CFR 60 and 40 CFR 63, respectively by reference into Rule 62-204.800, F.A.C. The provisions of these regulations are included in this permit as attached Appendices.

{Permitting Note: The numbering of the original rules has been preserved for ease of reference to the rules. The term "Administrator" when used in 40 CFR 60 shall mean the Secretary or the Secretary's designee.}

TABLE OF CONTENTS OF APPENDICES (made part of this permit)

- Appendix A.** Citation Formats
- Appendix B.** General Conditions
- Appendix C.** Common Conditions (Emissions & Controls, Testing, Reporting and Recording)
- Appendix D.** Facility Fugitives Emissions Control
- Appendix E.** NSPS, Subpart A – General Requirements
- Appendix F.** NESHAP, Subpart A – General Requirements
- Appendix G.** 40 CFR 60, Subpart F - Standards of Performance for Portland Cement Plants
- Appendix H.** 40 CFR 60, Subpart Y - Standards of Performance for Coal Preparation Plants
- Appendix I.** 40 CFR 63, Subpart LLL - National Emissions Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry – Major Sources

SECTION IV APPENDICES

TABLE OF CONTENTS

APPENDICES

Appendix A. Citation Formats

Appendix B. General Conditions

Appendix C. Common Conditions (Emissions & Controls, Testing, Reporting and Recording)

Appendix D. Facility Fugitive Emissions Control

Appendix E. NSPS – Subpart A, General Provisions Requirements

Appendix F. NESHAP – Subpart A, General Provisions Requirements

Appendix G. 40 CFR 60, Subpart F - Standards of Performance for Portland Cement Plants

Appendix H. 40 CFR 60, Subpart Y - Standards of Performance for Coal Preparation Plants

Appendix I. 40 CFR 63, Subpart LLL - National Emissions Standards for Hazardous Air
Pollutants from the Portland Cement Manufacturing Industry – Major Sources

SECTION IV APPENDIX A
CITATION FORMATS

The following examples illustrate the format used in the permit to identify applicable permitting actions and regulations.

REFERENCES TO PREVIOUS PERMITTING ACTIONS

Old Permit Numbers

Example: Permit No. AC50-123456 or Air Permit No. AO50-123456

Where: "AC" identifies the permit as an Air Construction Permit
"AO" identifies the permit as an Air Operation Permit
"123456" identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: "099" represents the specific county ID number in which the project is located
"2222" represents the specific facility ID number
"001" identifies the specific permit project
"AC" identifies the permit as an air construction permit
"AF" identifies the permit as a minor federally enforceable state operation permit
"AO" identifies the permit as a minor source air operation permit
"AV" identifies the permit as a Title V Major Source Air Operation Permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: "PSD" means issued pursuant to the Prevention of Significant Deterioration of Air Quality
"FL" means that the permit was issued by the State of Florida
"317" identifies the specific permit project

RULE CITATION FORMATS

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CFR 60.7]

Means: Title 40, Part 60, Section 7

SECTION IV APPENDIX B
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 Statutes.

SECTION IV APPENDIX B
GENERAL CONDITIONS

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 for CO (X);
 - b. Determination of Prevention of Significant Deterioration for CO (X);
 - c. Compliance with New Source Performance Standards (X) and
 - d. Compliance with National Emissions Standards for Hazardous Air Pollutants (X).
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:
 - 1) The date, exact place, and time of sampling or measurements;
 - 2) The person responsible for performing the sampling or measurements;
 - 3) The dates analyses were performed;
 - 4) The person responsible for performing the analyses;
 - 5) The analytical techniques or methods used; and
 - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SECTION IV. APPENDIX C
COMMON CONDITIONS

{Permitting Note: 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. **General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited.** No person shall cause, suffer, allow, or permit the discharge of air pollutants, which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]
3. **General Particulate Emission Limiting Standards. General Visible Emissions Standard.**
Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
4. **General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions.** The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
[Rule 62-296.320(1)(a), F.A.C.]
5. **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.]
6. **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.]
7. **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.]

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

8. **Volatile Organic Compounds (VOC) or Organic Solvents (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.]
9. **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.]

SECTION IV. APPENDIX C
COMMON CONDITIONS

10. 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.]

11. Unconfined Emissions of Particulate Matter:

- (1) No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.
- (2) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
- (3) Reasonable precautions include the following:
 - a. Paving and maintenance of roads, parking areas and yards.
 - b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
 - c. Application of asphalt, water, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
 - d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
 - e. Landscaping or planting of vegetation.
 - f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
 - g. Confining abrasive blasting where possible.
 - h. Enclosure or covering of conveyor systems.

Additional reasonable precautions applicable to this facility are included in Section III of the Permit under Subsection: Cement Plant Fugitives Emissions and Appendix D: Fugitive Dust Improvement Plan.

- (4) 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.

[Rule 62-296.320(4)(c), F.A.C.]

TESTING REQUIREMENTS

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

13. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. 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.

SECTION IV. APPENDIX C
COMMON CONDITIONS

Emissions testing shall be performed at the kiln/cooler main stack during a period when the kiln, precalciner, cooler, raw mill and preheater are operating simultaneously and under normal operating conditions. EPA-reference methods for sampling pollutants shall be as specified in 40 CFR 63, Appendix A. These emissions units shall comply with all applicable requirements of Rule 62-297.310, F.A.C. General Test Requirements and 40 CFR 63.1349, Performance Tests.

The permittee shall provide the DERM with a *protocol* that will outline the different fuel scenarios (% of total heat input) that this unit will be burning. Titan shall obtain the test data necessary to determine whether this kiln is capable of accommodating the burning of coal or petroleum coke and all of the other supplemental fuels specified on Section III, Specific Condition 9. Methods of Operation – Fuels (Pyroprocessing/Raw Mill System). The fuel scenarios tested shall represent the actual combustion percentage (% of total heat input) that is going to be maintained while burning supplemental fuels during normal operation. The frequency of testing shall be determined by the DERM.

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

14. 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.]

15. Test Performance Requirements: Tests shall be conducted in accordance with all applicable requirements of 40CFR60, Subpart A - General Provisions and 40CFR63, Subpart A – General Provisions. In the event that the facility fails any initial or annual performance test, a retest shall be conducted within 30 days of the test date of the failed test.

16. Applicable Test Procedures.

(a) Required Sampling Time.

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

2. Opacity Compliance Tests. When EPA 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. 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. 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.

c. 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.

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

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

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

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

SECTION IV. APPENDIX C
COMMON CONDITIONS

17. Determination of Process Variables

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

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

18. 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. Refer to Appendix SS-1 Stack Sampling Facilities, attached to this permit.

19. Test Notification: The owner or operator shall notify in writing to the Compliance Authority, at least *30 days* (initial) and *15 days* (annual) 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. [Rule 62-297.310(7)(a)9, F.A.C.]

20. Exceptions and Approval of Alternate Procedures and Requirements: An Alternate Sampling Procedure (ASP) may be requested from the Bureau of Monitoring and Mobile Sources of the Florida Department of Environmental Protection in accordance with the procedures specified in Rule 62-297.620, F.A.C.

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

(a) *General Compliance Testing.*

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

a. Did not operate; or

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

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

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

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

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

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

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

(c) *Waiver of Compliance Test Requirements.* If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate

SECTION IV. APPENDIX C
COMMON CONDITIONS

standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; 40 CFR 63.1349(c)]

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

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

[Rule 62-297.310(8), F.A.C.]

SECTION IV. APPENDIX C
COMMON CONDITIONS

RECORDS AND REPORTS

23. **Records Retention:** Upon request, the permittee shall furnish all records and plans required under DERM and FDEP rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the DERM. 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 for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified by DERM or FDEP rule.
[Rules 62-4.160(14)(a)&(b) and 62-213.440(1)(b)2.b., F.A.C.]
24. **Excess Emissions Report:** If excess emissions occur, the owner or operator shall notify the Air Facilities Section of the DERM, within (1) working day (excluding weekends and legal holidays) of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the DERM may request a written summary report of the incident.
[Rules 62-4.130 and 62-210.700(6), F.A.C.]
25. **Excess Emissions Malfunction Notification Report - Malfunctions:** In case of excess emissions resulting from malfunctions, each owner or operator shall notify the DERM in accordance with Rule 62-4.130, F.A.C. In addition, a full written report on the malfunctions shall be submitted in a quarterly report.
[Rule 62-210.700(6), F.A.C.]
26. **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 DERM, the Compliance Authority, by March 1st of each year. [Rule 62-210.370(2), F.A.C.]
27. **Central File Requirements:** This facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit. Operators shall keep a daily Operation and Maintenance log to include, at a minimum, the following information:
- The data collected from in-stack monitoring instruments
 - The records on daily feed rates and clinker production rate
 - The amount and type of fuel burned
 - Calibration logs for all instruments
 - Maintenance/repair logs for any work performed on equipment or instrument which is subject to this permit;
 - The following fuel records shall be maintained for a minimum of five (5) years and made available upon request:
 1. **Coal/Petroleum Coke**
 - (a) The coal/petroleum coke usage rate in tons per hour on a 24-hour basis;
 - (b) The average sulfur content and heating value (Btu/lb) of each coal shipment based upon supplier analysis or analysis of a sample representative of the shipment (trainload).
 2. **Liquid Fuels**
 - (a) The fuel type (number) and usage rate in gal per day;
 - (b) Records of the sulfur content and heating value (Btu/gal) of each oil shipment based upon supplier analysis or analysis of a sample representative of the shipment.
 3. **Natural Gas**
 - (a) The fuel usage rate in MMBtu per day;

All measurements, records, and any other data required to be maintained by Titan shall be retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These data shall be made available to the DERM upon request. DERM shall be notified in writing at least 15 days prior to the testing (auditing) of any emission measurement instrument required to be operated by these specific conditions in order to allow witnessing by authorized personnel.

[Rule 62-4.070(3), F.A.C.]

SECTION IV. APPENDIX C
COMMON CONDITIONS

OTHER REQUIREMENTS

28. Used Oil and Grease: Used oil and grease burned at this facility shall not be a hazardous waste as defined by 40 CFR Part 261.3 or Rule 62-730.030, F.A.C. It shall not include fuels or blended fuels consisting in whole or in part of hazardous waste or which include mixture of any solid waste generated from the treatment, storage, or disposal of hazardous waste. These fuels shall be burned in compliance with Section 403.769(3), Florida Statutes.
29. Other Regulations: The owner or operator shall comply with applicable provisions of Rule 62-710, Used Oil Management and 40 CFR Parts 279, Standards for the Management of Used Oil.

APPENDIX D
Fugitive Dust Improvement Plan

Pursuant to Rule 62-296.320(4)(c)2., F.A.C., Reasonable Precautions for Emissions of Unconfined Particulate Matter, the permittee shall take the following additional specific reasonable precautions within the timeframes specified to control facility-wide emissions of unconfined particulate matter (PM) {see the scheduled timeframes immediately following each action}:

- a. The applicant completed a preliminary evaluation of changes and improvements to the traffic patterns at the facility, as well as the need for additional paving, in order to further reduce fugitive dust emissions. The specific actions below are required to be completed in order to improve traffic patterns.
 - i. The permittee shall reroute truck traffic associated with the Packhouse. A new entrance road shall be constructed by extending 106th Avenue north along the east side of the property, just east of the old ESPs. This road improvement will be implemented in cooperation with the City of Medley. Once the entrance road is completed, the limerock road from the Packhouse to 106th Avenue shall be paved. This will reduce truck traffic on the Main plant entrance road (off U.S. 27), and will reduce fugitive emissions from unpaved roads.
Anticipated Schedule: Dependent upon the City of Medley to improve 106th Avenue.
 - ii. The permittee shall work with the City of Medley to upgrade 102nd Road. This will reduce carry-in of road dust on trucks entering the Titan property from 102nd Road, and also improve the drainage of accumulation of silt within the roadway. *Schedule:* The permittee is currently working with City of Medley. Schedule will be dependent on the City of Medley.
 - iii. After these preliminary actions have been completed, the permittee shall submit a final evaluation of any further changes and improvements to the traffic patterns at the facility, as well as the need for additional paving, in order to reduce fugitive dust emissions.
- b. The permittee shall berm exposed areas of the plant to prevent truck traffic from traveling over such areas. *Schedule:* Already implemented and ongoing.
- c. The permittee shall install a wheel wash system in an area directly leading out of the Aggregate Plant. This area will also include a dewatering area for trucks which will assist in cutting down on the amount of drag-out from the facility. *Schedule:* Operational by April 30, 2006.
- d. The permittee shall take measures to minimize silt buildup on the paved road leading out of the Aggregate Plant. This will reduce silt re-entrainment and carryout by trucks. *Schedule:* Measures implemented beginning in October 2005 and finalized with the addition of the new water truck in December 2005.
- e. The permittee currently employs one (1) watering truck with a dedicated driver to provide water suppression on the paved roads in the plant. The permittee issued a purchase order for a second watering truck with pressure spray. This second truck will provide a more effective watering program to reduce fugitive PM emission throughout the facility. *Schedule:* Exact delivery date is unknown; expected by December 2005.
- f. The permittee shall operate road sweepers 5 days a week at the facility. Road sweepers shall be used on high traffic roads. *Schedule:* This sweeping program has already been implemented and is proving to be effective in reducing fugitive PM emissions.
- g. A sprinkler system shall be installed along the main haul road from the quarry to the Aggregate Plant. This will reduce fugitive PM emissions from this unpaved road. *Schedule:* Complete by December 20, 2005.

APPENDIX D
Fugitive Dust Improvement Plan

- b.** The permittee shall take measures to reduce fugitive PM emissions from Bulk Cement Loadout area. This area has been observed to experience visible dust emissions. Schedule: Evaluation of options no later than November 2005. The equipment associated with these improvements will be included in the 2006 Capital Improvement Plan to be implemented no later than the first half 2006.
- i.** The permittee shall make landscape upgrades to further enhance not only the aesthetics of the facility, but also to further decrease the wind erosion of unpaved areas. Schedule: To be developed.
- j.** Best Management Practices (BMPs) shall be implemented to minimize fugitive PM emissions from outside raw material storage piles (i.e., bauxite, fly ash, iron ore, etc.). The BMPs to be implemented are below:

 - i.** Raw material inventory shall be managed to minimize the time in storage;
 - ii.** Unloading and reclaiming of materials shall be curtailed during windy or dry conditions;
 - iii.** Drop heights of material shall be minimized;
 - iv.** Posting and enforcing speed limits along haul roads leading to the storage areas; and,
 - v.** Raw materials are normally high moisture content when received. Application of water or other dust suppressants shall be used as necessary to minimize visible emissions.
- Schedule: Implement in October 2005.
- k.** The dust collector preventative maintenance crew developed an Operation and Maintenance (O&M) Program for all dust collectors at the facility. This will reduce the potential for dust collector malfunction and excess PM emissions. Schedule: The O&M Plan shall be implemented in August 2005.
- l.** Upgrades to the air slides on the package cement load-out and the new Packhouse shall be completed October 2005. This new system will eliminate a package load-out system designed and built in the early 1950's. Adjacent to this area a new clinker silo dust collecting system is being designed to improve dust collection for clinker handling. This will result in reducing fugitive dust emissions from these areas. Schedule: The equipment associated with these improvements will be included in the 2006 Capital Improvement Plan to be implemented no later than the second quarter 2006.
- m.** The permittee shall upgrade the finish mill systems. This will include installing a new finish mill (No. 6) and a dust suppression system. Once this system is in operation, one of the old finish mill systems will be permanently shut down. Schedule: Implement by October 2005 with completion by December of 2005.

The permittee shall submit quarterly progress reports to include a status report on each specific action implemented under this Appendix, **Conditions a through m**. The first quarterly report shall be submitted in January 2006, with updates every 3 months thereafter for a two-year period. The progress reports shall be submitted to the compliance authority (Miami-Dade County DERM) with copies to the SED Air Program and the Bureau of Air Regulation.

[Rule 62-296.320(4)(c)2., F.A.C., Rule 62-4.070(3), F.A.C.; Application received April 18, 2005; and, Fugitive Dust Improvement Plan dated August 19, 2005.]

SECTION IV APPENDIX E

NSPS – SUBPART A, GENERAL PROVISIONS REQUIREMENTS

This facility is subject to all applicable New Source Performance Standards (NSPS) in 40 CFR 60 and adopted by reference in Rule 62-204.800(7)(b), F.A.C.

40 CFR 60, Subpart A - NSPS General Provisions

The emission units covered under this permit shall comply with all the applicable General Provisions of Subpart A in the New Source Performance Standards including 40 CFR 60.7 (Notification and Record Keeping), 40 CFR 60.8 (Performance Tests), 40 CFR 60.11 (Compliance with Standards and Maintenance Requirements), 40 CFR 60.12 (Circumvention), 40 CFR 60.13 (Monitoring Requirements), and 40 CFR 60.19 (General Notification and Reporting Requirements). The General Provisions are included in this permit.

SECTION IV APPENDIX F

NESHAP – SUBPART A, GENERAL PROVISIONS REQUIREMENTS

This facility is subject to all applicable National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Source Category in 40 CFR 63 and adopted by reference in Rule 62-204.800(7)(b), F.A.C.

40 CFR 63, Subpart A - NESHAPS General Provisions

The emission units covered under this permit shall comply with all the applicable General Provisions of Subpart A in the National Emissions Standards for Hazardous Air Pollutants including 40 CFR 63.4 (Circumvention) , 40 CFR 63.5 (General Notification and Reporting Requirements, 40 CFR 63.6 (Compliance with Standards and Maintenance Requirements), 40 CFR 63.7 (Performance Tests), 40 CFR 63.8 (Monitoring Requirements), 40 CFR 63.9 (Notification Requirements), 40 CFR 63.10 (Record Keeping and Reporting Requirements) and 40 CFR 63.11 (Control Device Requirements). The General Provisions are part of this permit.

APPENDIX G
40 CFR 60 Subpart F - Standards of Performance for Portland Cement Plants

[Last Updated: 2/7/02]

{Source: Federal Register dated 7/1/98, Revised 2/7/02 to reflect FR 10/17/00}

§ 60.60 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to the following affected facilities in portland cement plants: Kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, finished product storage, conveyor transfer points, bagging and bulk loading and unloading systems.

(b) Any facility under paragraph (a) of this section that commences construction or modification after August 17, 1971, is subject to the requirements of this subpart.

[42 FR 37936, July 25, 1977]

§ 60.61 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) *Portland cement plant* means any facility manufacturing portland cement by either the wet or dry process.

(b) *Bypass* means any system that prevents all or a portion of the kiln or clinker cooler exhaust gases from entering the main control device and ducts the gases through a separate control device. This does not include emergency systems designed to duct exhaust gases directly to the atmosphere in the event of a malfunction of any control device controlling kiln or clinker cooler emissions.

(c) *Bypass stack* means the stack that vents exhaust gases to the atmosphere from the bypass control device.

(d) *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.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 20793, June 13, 1974; 53 FR 50363, Dec. 14, 1988]

§ 60.62 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any kiln any gases which:

- (1) Contain particulate matter in excess of 0.15 kg per metric ton of feed (dry basis) to the kiln (0.30 lb per ton).
- (2) Exhibit greater than 20 percent opacity.

(b) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any clinker cooler any gases which:

- (1) Contain particulate matter in excess of 0.050 kg per metric ton of feed (dry basis) to the kiln (0.10 lb per ton).
- (2) Exhibit 10 percent opacity, or greater.

APPENDIX G

40 CFR 60 Subpart F - Standards of Performance for Portland Cement Plants

(c) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility other than the kiln and clinker cooler any gases which exhibit 10 percent opacity, or greater. [39 FR 20793, June 14, 1974, as amended at 39 FR 39874, Nov. 12, 1974; 40 FR 46258, Oct. 6, 1975]

§ 60.63 Monitoring of operations.

(a) The owner or operator of any portland cement plant subject to the provisions of this part shall record the daily production rates and kiln feed rates.

(b) Except as provided in paragraph (c) of this section, each owner or operator of a kiln or clinker cooler that is subject to the provisions of this subpart shall install, calibrate, maintain, and operate in accordance with § 60.13 a continuous opacity monitoring system to measure the opacity of emissions discharged into the atmosphere from any kiln or clinker cooler. Except as provided in paragraph

(c) of this section, a continuous opacity monitoring system shall be installed on each stack of any multiple stack device controlling emissions from any kiln or clinker cooler. If there is a separate bypass installed, each owner or operator of a kiln or clinker cooler shall also install, calibrate, maintain, and operate a continuous opacity monitoring system on each bypass stack in addition to the main control device stack. Each owner or operator of an affected kiln or clinker cooler for which the performance test required under § 60.8 has been completed on or prior to December 14, 1988, shall install the continuous opacity monitoring system within 180 days after December 14, 1988.

(c) Each owner or operator of a kiln or clinker cooler subject to the provisions of this subpart using a positive-pressure fabric filter with multiple stacks, or a negative-pressure fabric filter with multiple stacks, or an electrostatic precipitator with multiple stacks may, in lieu of installing the continuous opacity monitoring system required by § 60.63(b), monitor visible emissions at least once per day by using a certified visible emissions observer. If the control device exhausts gases through a monovent, visible emission observations in lieu of a continuous opacity monitoring system are required. These observations shall be taken in accordance with EPA Method 9. Visible emissions shall be observed during conditions representative of normal operation. Observations shall be recorded for at least three 6-minute periods each day. In the event that visible emissions are observed for a number of emission sites from the control device with multiple stacks, Method 9 observations shall be recorded for the emission site with the highest opacity. All records of visible emissions shall be maintained for a period of 2 years.

(d) For the purpose of reports under § 60.65, periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity exceeds that allowed by § 60.62(a)(2) or § 60.62(b)(2).

(e) The provisions of paragraphs (a), (b), and (c) of this section apply to kilns and clinker coolers for which construction, modification, or reconstruction commenced after August 17, 1971. [36 FR 24877, Dec. 23, 1971, as amended at 53 FR 50363, Dec. 14, 1988]

§ 60.64 Test methods and procedures.

(a) In conducting the performance tests required in § 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 § 60.8(b).

APPENDIX G
40 CFR 60 Subpart F - Standards of Performance for Portland Cement Plants

(b) The owner or operator shall determine compliance with the particulate matter standard in § 60.62 as follows:

(1) The emission rate (E) of particulate matter shall be computed for each run using the following equation:

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

where:

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

C_s = concentration of particulate matter, g/dscm (gr/dscf).

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

P = total kiln feed (dry basis) rate, metric ton/hr (ton/hr).

K = conversion factor, 1000 g/kg (7000 gr/lb).

(2) Method 5 shall be used to determine the particulate matter concentration (c_s) and the volumetric flow rate (Q_{sd}) of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30.0 dscf) for the kiln and at least 60 minutes and 1.15 dscm (40.6 dscf) for the clinker cooler.

(3) Suitable methods shall be used to determine the kiln feed rate (P), except fuels, for each run. Material balance over the production system shall be used to confirm the feed rate.

(4) Method 9 and the procedures in § 60.11 shall be used to determine opacity.

[54 FR 6666, Feb. 14, 1989]

§ 60.65 Recordkeeping and reporting requirements.

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

(b) Each owner or operator monitoring visible emissions under § 60.63(c) shall submit semi-annual reports of observed excess emissions as defined in § 60.63(d).

(c) Each owner or operator of facilities subject to the provisions of § 60.63(c) shall submit semi-annual reports of the malfunction information required to be recorded by § 60.7(b). These reports shall include the frequency, duration, and cause of any incident resulting in deenergization of any device controlling kiln emissions or in the venting of emissions directly to the atmosphere.

(d) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, 42 U.S.C. 7411, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected sources within the State will be relieved of the obligation to comply with this section, provided that they comply with the requirements established by the State.

[53 FR 50364, Dec. 14, 1988]

§ 60.66 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: No restrictions.

APPENDIX H

40 CFR 60, Subpart Y- Standards of Performance for Coal Preparation Plants

Updated 9/15/03

Source: Federal Register dated 1/15/76

§ 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 181 Mg (200 tons) per day: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems, and coal transfer and loading systems.

(b) Any facility under paragraph (a) of this section that commences construction or modification after October 24, 1974, is subject to the requirements of this subpart.

§ 60.251 Definitions.

As used in this subpart, all terms not defined herein have the meaning given them in the Act and in subpart A of this part.

(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, subbituminous, 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.

APPENDIX H

40 CFR 60, Subpart Y- Standards of Performance for Coal Preparation Plants

§ 60.252 Standards for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, an owner or operator subject to the provisions of this subpart 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.

(b) On and after the date on which the performance test required to be conducted by § 60.8 is completed, an owner or operator subject to the provisions of this subpart shall not cause to be discharged into the atmosphere from any pneumatic coal cleaning equipment, gases which:

- (1) Contain particulate matter in excess of 0.040 g/dscm (0.017 gr/dscf).
- (2) Exhibit 10 percent opacity or greater.

(c) On and after the date on which the performance test required to be conducted by § 60.8 is completed, an owner or operator subject to the provisions of this subpart shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.

§ 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:

(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 ± 1.7 °C (± 3 °F).

(2) For affected facilities that use venturi scrubber emission control equipment:

(i) A monitoring device for the continuous measurement of the pressure loss through the venturi constriction of the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within ± 1 inch water gauge.

(ii) A monitoring device for the continuous measurement of the water supply pressure to the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within ± 5 percent of design water supply pressure. The pressure sensor or tap must be located close to the water discharge point. The Administrator may be consulted for approval of alternative locations.

(b) All monitoring devices under paragraph (a) of this section are to be recalibrated annually in accordance with procedures under § 60.13(b).

§ 60.254 Test methods and procedures.

(a) In conducting the performance tests required in § 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 § 60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards in § 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 § 60.11 shall be used to determine opacity.

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the
Portland Cement Manufacturing Industry- Major Sources

{Last updated 6/27/03}

Section

GENERAL

63.1340 Applicability and designation of affected sources.

63.1341 Definitions.

EMISSION STANDARDS AND OPERATING LIMITS

63.1342 Standards: General.

63.1343 Standards for kilns and in-line kiln/raw mills.

63.1344 Operating limits for kilns and in-line kiln/raw mills.

63.1345 Standards for clinker coolers.

63.1346 Standards for new and reconstructed raw material dryers.

63.1347 Standards for raw and finish mills.

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.

MONITORING AND COMPLIANCE PROVISIONS

63.1349 Performance testing requirements.

63.1350 Monitoring requirements.

63.1351 Compliance dates.

63.1352 Additional test methods.

NOTIFICATION, REPORTING AND RECORDKEEPING

63.1353 Notification requirements.

63.1354 Reporting requirements.

63.1355 Recordkeeping requirements.

OTHER

63.1356 Exemption from new source performance standards.

63.1357 Temporary, conditioned exemption from particulate and opacity standards.

63.1358 Implementation and Enforcement.

63.1359 [Reserved]

Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement
Manufacturing Industry

§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 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;

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

(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.

§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 40 CFR 63 Subpart A.

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.

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

Feed means the prepared and mixed materials, which include but are not limited to materials such as limestone, clay, shale, sand, iron ore, mill scale, cement kiln dust and flyash, that are fed to the kiln. Feed does not include the fuels used in the kiln to produce heat to form the clinker product.

Finish mill means a roll crusher, ball and tube mill or other size reduction equipment used to grind clinker to a fine powder. Gypsum and other materials may be added to and blended with clinker in a finish mill. The finish mill also includes the air separator associated with the finish mill.

Greenfield kiln, in-line kiln/raw mill, or raw material dryer means a kiln, in-line kiln/raw mill, or raw material dryer for which construction is commenced at a plant site (where no kilns and no in-line kiln/raw mills were in operation at any time prior to March 24, 1998) after March 24, 1998.

Hazardous waste is defined in §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.

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.

EMISSION STANDARDS AND OPERATING LIMITS

§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.

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

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

Affected Source	Pollutant or 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	<p>0.20 ng TEQ/dscm or 0.40 ng TEQ/dscm when the average of the performance test run average particulate matter control device (PMCD) inlet temperatures is 204° C or less. [Corrected to 7 percent oxygen]</p> <p>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.</p>
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
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

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

§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) [Reserved]

§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,

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

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

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

(3) If the in-line kiln/raw mill is equipped with an alkali bypass, the applicable temperature limit for the alkali bypass specified in paragraph (b) of this section and established during the performance test, 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.

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

(b) [Reserved]

§63.1346 Standards for new and reconstructed raw material dryers.

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

(b) [Reserved]

(c) *Greenfield/major sources.* No owner or operator of a greenfield raw material dryer at a facility which is a major source subject to this subpart shall cause to be discharged into the atmosphere from the greenfield raw material dryer any gases 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;

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

- (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 the three runs shall be used to determine compliance. A determination of the PM collected in the impingers ("back half") of the Method 5 particulate sampling train is not required to demonstrate initial compliance with the PM standards of this subpart. However, this shall not preclude the permitting authority from requiring a determination of the "back half" for other purposes.

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

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

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

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

c_s = concentration of PM, kg/dscm.

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

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

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

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

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

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

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

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

- 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 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

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

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.

(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.

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

(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 ^c 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 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.

(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

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

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.

§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

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

section for each such conveying system transfer point located within the building, or for the building itself, according to paragraph (a)(4)(vii) of this section.

(vii) If visible emissions from a building are monitored, the requirements of paragraphs (a)(4)(i) through (iv) of this section apply to the monitoring of the building, and you must also test visible emissions from each side, roof 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.

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

(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 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 followup 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.

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

(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.

(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.

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

(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 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,

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

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:

(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.

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

(n) A summary of the monitoring requirements is given: **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.
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	Method 22 visible emissions test	As specified in operation and maintenance plan

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

Affected Source/Pollutant or Opacity	Monitor Type/ Operation/Process	Monitoring Requirements
loading and unloading systems at major sources/opacity		

§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.

NOTIFICATION, REPORTING AND RECORDKEEPING

§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 §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

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

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 monitor shall submit an excess emissions and continuous monitoring system

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

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).

OTHER

§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

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

(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 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.

APPENDIX I

40 CFR 63, Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry- Major Sources

§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]

Florida Department of
Environmental Protection

Memorandum

TO: Michael G. Cooke, Director DARM
THRU: Trina L. Vielhauer, Chief BAR 
FROM: A.A. Linero and Teresa Heron, South Permitting Section 
DATE: November 18, 2005
SUBJECT: Titan Florida Pennsuco Cement Plant
DEP File No. 0250020-017-AC (PSD-FL-360)

Attached is the Final Permit PSD-FL-360 (0250020-017-AC) for the Titan Pennsuco Cement Plant in Medley, Miami-Dade County. The modification to the existing air permit is to increase long-term (annual) production at the recently modernized dry process line that started up in June 2004. This will be accomplished by removing restrictions on annual hours of operation on key equipment without changes to short-term (hourly or daily production limits).

An updated netting calculation was performed based on the most recent two full years that Titan operated the defunct wet process kilns (2002-2003). The project triggered PSD only for carbon monoxide. Titan took more restrictive limits on all other pollutants. For example, their NO_x limit to avoid PSD is 2.17 lb/ton of clinker on a long-term basis. With their version of staged combustion they can achieve this value without SNCR.

To net out of PSD for PM/PM₁₀, they took very restrictive limits on their process equipment and, more importantly, agreed to implement measures that will give the modernized facility a much cleaner look. The measures already taken or proposed include paving of all manufacturing areas at the cement plant, ready-mix plant, and concrete block plant. There has been substantial planting of grass, trees and vegetative berms. They have two water trucks, a wheel washing station and numerous other reasonable precautions and planned improvements.

Overall, the cement plant uses roughly 3,000,000 of the 10,000,000 tons per year of limestone quarried at the facility. The aggregate plant, is still "rough" but progressively improving. The dust control measures (including the upgrades to the process dust control equipment) incorporated into this permit are sufficient to insure the cement plant modernization project will net out of PSD. Miami-Dade DERM has reported to us the overall facility looks better than in the past. The modernized cement plant, the subject of this permit, is very much cleaner than the old cement plant. The ready mix and concrete block plants also look better.

We recommend issuance of the final permit.

AAL/th

Attachments

<p>SENDER: COMPLETE</p> <ul style="list-style-type: none"> Complete items 1, 2, and item 4 if Restricted Delivery is used. 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="margin-left: 40px;">Mr. Hardy Johnson, President Florida Division Tarmac America, LLC 455 Fairway Drive Deerfield Beach, Florida 33441</p> <p>2. Article Number (Transfer from service label) 7001 0320 0001-3692 3982</p>	<p style="text-align: center;">FOR USE BY ADDRESSEE</p> <p>Signature _____</p> <p><input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</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>
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PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

U.S. Postal Service											
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<i>(Domestic Mail Only; No Insurance Coverage Provided)</i>											
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<p>Sent To: Mr. Hardy Johnson, President</p> <p>Street or P.O. Box: Florida Division</p> <p>City, State, ZIP+4: Tarmac America, LLC</p> <p style="margin-left: 40px;">455 Fairway Drive</p> <p style="margin-left: 40px;">Deerfield Beach, Florida 33441</p>											
<p>PS Form 3800, January 2003 See Reverse for Instructions</p>											

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