Memorandum

Florida Department of
Environmental Protection

To: Trina Vielhauer, Bureau of Air Regulation

Through: Jeff Koerner, New Source Review Section

From: Christy DeVore, New Source Review Section

Date: May 18, 2010

Subject: Draft Minor Source Air Construction Permit
Project No. 0250014-031-AC
CEMEX Construction Material Florida, LLC, Miami Cement Plant
Trial Burn of Clean Woody Biomass

Attached for your review is a draft minor air construction permit package for the existing Miami Cement Plant, which is located in Miami-Dade County at 1200 NW 137 Avenue in Miami, Florida. Briefly, the draft permit authorizes a trial burn of clean woody biomass from the Miami-Dade County Resource Recovery Facility to supplement the primary fuel of coal. The application requests authorization to co-fire up to 5,000 tons of biomass with coal and in the event of operational problems, CEMEX will request authorization to fire up to an additional 2,000 tons of biomass with coal. The stated purpose of the project is to examine the feasibility of receiving, storing, handling and firing the clean woody biomass. The attached Technical Evaluation and Preliminary Determination provides a detailed description of the project and the rationale for permit issuance. The project is not considered a New Source Review reform project. Day 90 of the permitting time clock is July 18, 2010. I recommend your approval of the attached draft permit package.

Attachments

TLV/jfk/scd

P.E. CERTIFICATION STATEMENT

PERMITTEE

CEMEX Construction Materials Florida, LLC
1200 NW 137 Avenue
Miami, FL 33182

Draft Permit No. 0250014-031AC
Miami Cement Plant
Trial Burn of Clean Woody Biomass
Miami-Dade County, Florida

PROJECT DESCRIPTION

The applicant proposes a trial burn of clean woody biomass from the Miami-Dade County Resource Recovery Facility at the Miami Cement Plant to supplement the primary fuel of coal. The application requests authorization to co-fire up to 5,000 tons of biomass with coal and in the event of operational problems, CEMEX will request authorization to fire up to an additional 2,000 tons of biomass with coal. The stated purpose of the project is to examine the feasibility of receiving, storing, handling and firing the clean woody biomass. During the trial burn, emissions of the following pollutants will be continuously monitored: carbon monoxide, nitrogen oxides, sulfur dioxide, total hydrocarbons and opacity. The project also includes the option of a diesel-powered shredder in case the woody biomass must be re-sized. The project may result in small emissions increases of carbon monoxide, sulfur dioxide, particulate matter and volatile organic compounds (all less than 4 tons per year). Emissions of nitrogen oxides are expected to decrease slightly when firing woody biomass.

This project is subject to the general preconstruction review requirements in Rule 62-212.300, Florida Administrative Code (F.A.C.) and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. The Department's full review of the project and rationale for issuing the draft permit is provided in the Technical Evaluation and Preliminary Determination.

I HEREBY CERTIFY *that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify any other aspects of the proposal (including, but not limited to, the electrical, civil, mechanical, structural, hydrological, geological, and meteorological features).*

STATE OF FLORIDA ★ LICENSED ★ PROFESSIONAL ENGINEER ★ NO. 63119

S. Christine DeVore, P.E. (Date)
Registration Number 63119

Florida Department of
Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

May 21, 2010

Sent by Electronic Mail – Received Receipt Requested

Mr. Robert Rogers, Plant Manager
CEMEX Construction Materials Florida, LLC
1200 NW 137 Avenue
Miami, FL 33182

Re: Project No. 0250014-031-AC
CEMEX Construction Materials Florida, LLC, Miami Cement Plant
Trial Burn of Clean Woody Biomass

Dear Mr. Rogers:

On February 24, 2010, you submitted an application requesting a trial burn of clean woody biomass. The existing facility is located in Miami-Dade County at 1200 NW 137 Avenue in Miami, Florida. Enclosed are the following documents: the Written Notice of Intent to Issue Air Permit; the Public Notice of Intent to Issue Air Permit; the Technical Evaluation and Preliminary Determination; and the Draft Permit with Appendices. The Public Notice of Intent to Issue Air Permit is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project. If you have any questions, please contact the project engineer, Christy DeVore, at 850/921-8968.

Sincerely,

Trina Vielhauer, Chief
Bureau of Air Regulation

Enclosures

TLV/jfk/scd

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

In the Matter of an
Application for Air Permit by:

CEMEX Construction Materials Florida, LLC
1200 NW 137 Avenue
Miami, FL 33182

Authorized Representative:
Robert Rogers, Plant Manager

Project No. 0250014-031-AC
Minor Air Construction Permit

Miami Cement Plant
Trial Burn of Clean Woody Biomass
Miami-Dade County, Florida

Facility Location: CEMEX Construction Materials Florida, LLC operates the existing Miami Cement Plant, which is located in Miami-Dade County at 1200 NW 137 Avenue in Miami, Florida.

Project: The applicant proposes to peform a trial burn of clean woody biomass from the Miami-Dade County Resource Recovery Facility to supplement the primary fuel of coal. The application requests authorization to co-fire up to 5,000 tons of biomass with coal and in the event of operational problems, the option to request an additional 2,000 tons of biomass with coal. The purpose of the project is to examine the feasibility of receiving, storing, handling and firing the clean woody biomass. Details of the project are provided in the application and the enclosed Technical Evaluation and Preliminary Determination.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above.

Notice of Intent to Issue Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Permit (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet the requirements of Sections 50.011 and 50.031, F.S. in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at above address or phone number. Pursuant to Rule 62-110.106(5) and (9), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within 7 days of publication. Failure to

publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of 14 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of the 14-day period. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the attached Public Notice or within 14 days of receipt of this Written Notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Written Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.

Trina Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Written Notice of Intent to Issue Air Permit package (including the Written Notice of Intent to Issue Air Permit, the Public Notice of Intent to Issue Air Permit, the Technical Evaluation and Preliminary Determination and the Draft Permit with Appendices) was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on 5/21/10 to the persons listed below.

Mr. Robert Rogers, CEMEX Construction Materials Florida, LLC (rrogers@cemexusa.com)
Mr. Charles Walz, CEMEX Construction Materials, Florida, LLC (cwalz@cemexusa.com)
Mr. Max Lee, Ph.D., P.E., Koogler and Associates, Inc. (mlee@kooglerassociates.com)
Ms. Mallika Muthia, P.E. , Miami-Dade Co. Environmental Resource Management (muthim@miamidade.gov)
Ms. Vickie Gibson, DEP BAR Reading File (victoria.gibson@dep.state.fl.us)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

(Clerk) 5/21/10 (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection
Division of Air Resource Management, Bureau of Air Regulation
Draft Air Construction Permit
Project No. 0250014-031-AC
CEMEX Construction Materials Florida, LLC, Miami Cement Plant
Miami-Dade County, Florida

Applicant: The applicant for this project is CEMEX Construction Materials Florida, LLC. The applicant's authorized representative and mailing address is: Robert Rogers, Plant Manager, CEMEX Construction Materials Florida, LLC, Miami Cement Plant, 1200 NW 137 Avenue in Miami, Florida 33182.

Facility Location: CEMEX Construction Materials Florida, LLC operates the existing Miami Cement Plant, which is located in Miami-Dade County at 1200 NW 137 Avenue in Miami, Florida.

Project: The applicant proposes to conduct a trial burn of clean woody biomass at the CEMEX Construction Materials Florida, LLC, Miami Cement Plant to supplement the primary fuel of coal. The application requests authorization to co-fire up to 5,000 tons of biomass with coal and in the event of operational problems, the option to request to fire up to an additional 2,000 tons of biomass with coal. The stated purpose of the project is to examine the feasibility of receiving, storing, handling and firing the clean woody biomass. During the trial burn, emissions of the following pollutants will be continuously monitored: carbon monoxide, nitrogen oxides, sulfur dioxide, total hydrocarbons and opacity. The project also includes the option of a diesel-powered shredder in case the woody biomass must be re-sized. The project may result in small emissions increases of carbon monoxide, sulfur dioxide, particulate matter and volatile organic compounds (all less than 4 tons per year each). Emissions of nitrogen oxides are expected to decrease slightly when firing clean woody biomass.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Permitting Authority responsible for making a permit determination for this project is the Bureau of Air Regulation in the Department of Environmental Protection's Division of Air Resource Management. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the physical address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application and information submitted by the applicant (exclusive of confidential records under Section 403.111, F.S.). Interested persons may contact the Permitting Authority's project engineer for additional information at the address and phone number listed above. In addition, electronic copies of these documents are available on the following web site by entering draft permit number: http://www.dep.state.fl.us/air/emission/apds/default.asp.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air construction permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of 14 days from the date of publication of this Public Notice. Written comments must be received by the

Permitting Authority by close of business (5:00 p.m.) on or before the end of the 14-day period. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within 14 days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial rights will be affected by the agency determination; (c) A statement of when and how the petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Public Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available for this proceeding.

(Public Notice to be Published in the Newspaper)

TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

CEMEX Construction Materials Florida, LLC
1200 NW 137 Avenue
Miami, FL 33182

Miami Cement Plant
Facility ID No. 0250014

PROJECT

Project No. 0250014-031-AC
Application for Minor Source Air Construction Permit
Miami Cement Plant Kiln
Trial Burn of Clean Woody Biomass

COUNTY

Miami-Dade County, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
New Source Review Section
2600 Blair Stone Road, MS#5505
Tallahassee, Florida 32399-2400

May 18, 2010

1. GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

Facility Description and Location

CEMEX Construction Materials Florida , LLC (CEMEX) operates the existing Miami Cement Plant located in Miami-Dade County at 1200 NW 137 Avenue in Miami, Florida. The primary Standard Industrial Classification Code (SIC) for the facility is No. 3241 for cement production. The UTM coordinates of the existing facility are Zone 17, 558.20 km East, and 2851.20 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS).

Facility Regulatory Categories

- The existing facility is a major source of hazardous air pollutants (HAP).
- The existing facility does not operate units subject to the acid rain provisions of the Clean Air Act.
- The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The existing facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Project Description

On February 24, 2010, CEMEX submitted an application requesting an air construction permit authorizing a trial burn of clean woody biomass from the Miami-Dade County Resource Recovery Facility (MDCRRF) to supplement the primary fuel of coal. The application was deemed complete with additional information provided on April 19, 2010. The application requests authorization to co-fire up to 5,000 tons of biomass with coal and in the event of operational problems, CEMEX will request authorization to fire up to an additional 2,000 tons of biomass with coal. The purpose of the project is to examine the feasibility of receiving, storing, handling and firing the clean woody biomass.

The clean woody biomass is manufactured by the MDCRRF (ARMS Facility ID No. 0250348). The biomass processing system is separate from the municipal solid waste system. The clean woody biomass is processed from incoming vegetative storm debris, tree trimmings and other vegetative maintenance activities. The processing system removes any potential large bulky waste, metals, painted or treated materials from biomass to be used off-site in combustion units as a processed fuel. Soils removed in the process are typically exported as

landfill cover. The process includes a five step incoming material inspection, dual mechanical metal removal system, final biomass product inspection, sampling, mechanical soil removal, radiation monitoring and employee training. The clean woody biomass has a heating value of approximately 3,991 Btu/lb, a moisture content of approximately 49.4% by weight and an ash content of approximately 4.31% by weight.

The applicant stated that its following goals can be achieved if clean woody biomass can be successfully fired in the cement kiln:

- The clean woody biomass will be transported a shorter distance to CEMEX Miami than the current electric power generating sources throughout the state using the biomass as a processed fuel.
- Energy from the clean woody biomass can be recovered for use in the cement kiln, which reduces the amount of coal that must be fired.
- A successful trial burn may create more demand for reclaimed biomass.
- CEMEX Miami will be able to reduce operational costs by displacing coal with clean woody biomass.
- CEMEX Miami will be able to meet their corporate commitments to sustainability by recycling materials, recovering materials and energy as well as minimizing wastes.

During the 120-day trial period the maximum hourly rate of the clean woody biomass will be determined. The heat substitution of the clean woody biomass will be less than 30% of 485 MMBtu/hour of the maximum firing rate (24-hour average.) The substitution rate of 30% heat input is approximately 18.2 tons per hour of clean woody biomass based on a wet heat content of 8 MMBtu/ton.

CEMEX Miami proposes to inject the clean woody biomass pneumatically (Schenk Accurate pneumatic blower or equivalent) through an injection port in the bottom section of the precalciner. The Schenk feeder is capable of feeding up to 15 to 20 tons per hour of biomass having a density of 20 lb/ft^3 using forced air at a rate of 2,200 cfm and an 8-inch diameter flexible line. The installation of the temporary port into the precalciner is proposed during the next planned kiln outage this spring. If the biomass size is too large, CEMEX will grind the biomass using a Vermeer model HG600 grinder or equivalent.

Once kiln operations stabilize with the co-firing of clean woody biomass with coal, the applicant estimates approximately five days of operation to evaluate the following operating scenarios: 10% clean wood biomass with 90% coal, 20% clean woody biomass with 80% coal and 29% clean woody biomass with 71% coal. Based on current information, this is approximately equivalent to: 6.1 tons/hour of clean woody biomass with 16.8 tons/hour of coal, 12.2 tons/hour of clean woody biomass with 14.9 tons/hour of coal and 17.6 tons/hour of clean woody biomass with 13.2 tons/hour of coal. The kiln must stabilize first while co-firing the clean woody biomass with coal.

The applicant proposes to use the existing continuous emissions monitoring systems (CEMS) to monitor emissions of nitrogen oxides (NO_X) in the power duct, as well as sulfur dioxide (SO_2) and total hydrocarbons (THC) emissions at the outlet stack. The unit also monitors opacity with a continuous opacity monitoring system (COMS) at the stack. Emissions of carbon monoxide (CO) will be monitored by a continuous process monitor. Emissions of particulate matter (PM) will be determined by stack tests. A final report will summarize the operational capabilities of the existing equipment to receive, store, handle and fire clean woody biomass as well as the impacts from firing this alternative fuel.

As provided in the application, CEMEX Miami proposes the following for the trial test burn of clean woody biomass:

- Clean woody biomass would be fired in the cement kiln at a rate less than 30% of the maximum coal-firing rate based on heat input, which is approximately 18.2 tons of clean woody biomass per hour. The trial will test at least three different firing rates (e.g. 6.1 tons/hour, 12.2 tons/hour and 17.6 tons/hour). No more than 5,000 tons of clean woody biomass would be fired at first, and an additional 2,000 tons if necessary, for a

days.

- The clean woody biomass will be initially processed to size by MDCRRF (supplier). Only vegetative matter will be shredded for the trial – no soils, bulky wastes, metals, painted or treated material.
- The clean woody biomass will be delivered in a covered truck unloaded to a paved and covered area for storage (West Hall Building), with plant personnel using fugitive dust emission control techniques including water spray. However, the clean woody biomass is typically greater than 30% moisture by weight and not expected to be a source of fugitive emissions. Because the biomass significantly degrades in heat content in less than two weeks, the stored material is expected to be no more than the amount used in a week, estimated at 500 tons.
- Clean woody biomass will be transferred by a front end loader or truck to a live-bottom hopper to feed the temporary Schenk Accurate blower or equivalent feeder system. Forced air at a rate of 2200 cfm will blow the biomass into the temporary port in the precalciner tower. Fluid dynamic modeling of the precalciner will be used to determine the most effective injection location for the biomass fuel for maximum efficiency.
- The biomass is typically of 1-3" nominal diameter. The injection system will use a nominal 8-inch diameter line to pneumatically blow the biomass into the kiln. CEMEX will shred the biomass to a smaller size if necessary to prevent plugging in the kiln injection system. It is possible that some pieces may exceed this level and cause feeder problems or perhaps a smaller size will be necessary during the trial. Therefore, CEMEX Miami requests authority to operate a temporary shredding and screening system to "re-shred" the material as necessary. The grinding system proposed is a Vermeer model HG6000 grinder and screen or equivalent. The shredder has a diesel engine (using ultra low sulfur diesel fuel) rated at approximately 630 horsepower (hp). This equipment would be operated at the West Hall Building.
- For the trial, CEMEX Miami will monitor NO_X, SO_2 and total hydrocarbon (THC) emissions with the existing certified CEMS, opacity with the existing certified COMS and CO emissions with the existing process monitor.
- For the trial, CEMEX Miami will monitor: the average fuel feed rates, the average kiln feed rates, the average clinker production rates, the total fuel consumption rates, the number of times a trial was stopped and the reason for stopping a trial.
- Within 90 days of completing the temporary trial, CEMEX Miami will provide a report summarizing the analytical results, emissions monitoring data, kiln production/process data and a conclusion as to the feasibility and practicality of firing clean woody biomass as an alternative fuel. The report shall specifically identify any problems that occurred during the trial and the cause of the problem.

2. PSD APPLICABILITY

General PSD Applicability

For areas currently in attainment with the state and federal AAQS or areas otherwise designated as unclassifiable, the Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. Under preconstruction review, the Department first must determine if a project is subject to the PSD requirements ("PSD applicability review") and, if so, must conduct a PSD preconstruction review. A PSD applicability review is required for projects at new and existing major stationary sources. In addition, proposed projects at existing minor sources are subject to a PSD applicability review to determine whether potential emissions *from the proposed project itself* will exceed the PSD major stationary source thresholds. A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit:

- 5 tons per year or more of lead;
- 250 tons per year or more of any regulated air pollutant; or

- 250 tons per year or more of any regulated air pollutant; or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the following 28 PSD-major facility categories: fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), Kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants and charcoal production plants.

Once it is determined that a project is subject to PSD preconstruction review, the project emissions are compared to the "significant emission rates" defined in Rule 62-210.200, F.A.C. for the following pollutants: CO; NO_X; SO_2; PM; particulate matter with a mean particle diameter of 10 microns or less (PM_{10}); volatile organic compounds (VOC); lead (Pb); fluorides (F); sulfuric acid mist (SAM); hydrogen sulfide (H_2S); total reduced sulfur (TRS), including H_2S; reduced sulfur compounds, including H_2S; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as particulate matter; municipal waste combustor acid gases measured as SO_2 and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as non-methane organic compounds (NMOC); and mercury (Hg). In addition, significant emissions rate also means any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 $\mu g/m^3$, 24-hour average.

If the potential emission exceeds the defined significant emissions rate of a PSD pollutant, the project is considered "significant" for the pollutant and the applicant must employ the Best Available Control Technology (BACT) to minimize the emissions and evaluate the air quality impacts. Although a facility or project may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

PSD Applicability for Project

The applicant believes that co-firing clean woody biomass with coal will result in negligible changes in PSD pollutant emissions for the following reasons.

- CO and VOC emissions will be controlled by the high temperatures and long residence time in the kiln.
- NO_X emissions from wood firing are typically lower than NO_X emissions from coal firing.
- SO_2 emissions are minimal as biomass contains little sulfur to generate SO_2 emissions, which would be scrubbed in the cement kiln.
- Particulate matter will be controlled with the existing baghouse.

CO, NO_X, PM, PM_{10}, SO_2 and VOC emissions will be generated from combustion of the clean woody biomass. These emissions will be offset by the emissions that would have been generated from an equivalent amount of coal based on the heat input rate. As provided in the application, the following table summarizes potential emissions and PSD applicability for the project based on the firing of 7000 tons of biomass.

Table A. Summary of the Applicant's PSD Applicability Analysis

Pollutant	Emissions for Temporary Trial				Subject to PSD?
	Shredder	Kiln (clean woody biomass)*	Increase	Significant Emissions Rate	
CO	3.83	-1.01	2.8	100	No
NO_X	3.29	-9.51	-6.2	40	No
PM	0.20	2.22	2.4	25	No
PM_{10}	0.20	2.22	2.4	15	No
SO_2	1.00	0.36	1.4	40	No
VOC	3.29	-0.01	3.3	40	No

* The emissions from the kiln are based upon firing 7000 tons of clean woody biomass.

As shown in the above table, total project emissions are not expected to exceed the PSD significant emissions rates; therefore, the project is not subject to PSD preconstruction review. The Department notes that even 7,000 tons of clean woody biomass at several times the emissions would be well below the PSD significant emissions rates.

3. DEPARTMENT REVIEW

The Department will authorize the temporary trial burn of clean woody biomass to supplement coal firing in the Miami Cement Plant kiln based on the following requirements:

- The permittee is authorized to co-fire up to 5,000 tons of clean woody biomass with coal during the trial burn. However, after providing written request and notification to the Bureau of Air Regulation and the Compliance Authority, the permittee may fire an additional 2,000 tons of clean woody biomass. This is to ensure a proper evaluation of this alternative fuel and provide flexibility should problems arise during the trial burn.
- The permittee shall use the existing CEMS to identify NO_X and SO_2 emissions generated from co-firing clean woody biomass with coal.
- The permittee shall used the existing continuous opacity monitoring system (COMS) to identify the opacity from co-firing clean woody biomass with coal.
- The permittee shall used the existing continuous CO process monitor to identify the CO from co-firing clean woody biomass with coal.
- The permittee shall conduct stack tests to determine baseline PM emissions generated when firing only coal as well as the project impacts from co-firing clean woody biomass with coal. Existing PM test data may be used to establish the baseline PM emissions when firing only coal.
- The permittee shall have a representative sample of clean woody biomass analyzed for the following: ultimate analysis, proximate analysis and heat content.
- When gathering CEMS data and conducting stack tests, the permittee shall record the following information: fuel firing rates of each fuel (tons/hour), heat input rates from firing each fuel (MMBtu/hour) and clinker production rates.
- The permittee is required to submit a report summarizing the following: fuel firing rates of each fuel (tons/hour); heat input rates from firing each fuel (MMBtu/hour); clinker production rates; problems with receiving, storing, handling and firing the clean woody biomass; overall operational feasibility of clean woody biomass as an alternative fuel; performance of the fuel feed system as well as the performance of the bottom ash and fly ash removal systems; the results of the ultimate, proximate and heat content analyses; and

a comparison of emissions between firing only coal with co-firing clean woody biomass with coal.

Although the information gathered during the trial burn may be used to provide information to support a request for the permanent firing of clean woody biomass, the Department notes that the applicant must submit an application for an air construction permit to request the permanent firing of clean woody biomass.

Conclusion

The requested trial will burn a very small amount of clean woody biomass to determine if it is feasible and practical enough to continue to pursue as an alternative fuel. The existing kiln system and controls are sufficient to ensure that emissions from the alternative fuel will be very low. The applicant will be required to comply with all existing valid permit conditions during the trial.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Christy DeVore is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

DRAFT PERMIT

PERMITTEE

CEMEX Construction Materials Florida, LLC
1200 NW 137 Avenue
Miami, FL 33182

Authorized Representative:
Mr. Robert Rogers, Plant Manager

Air Permit No. 0250014-031-AC
Permit Expires: May 1, 2011
Minor Air Construction Permit

Miami Cement Plant
Trial Burn of Clean Woody Biomass

PROJECT

This is the final air construction permit, which authorizes the temporary trial burn of clean woody biomass in the existing Miami Cement Plant kiln, which is categorized under Standard Industrial Classification No. 3241. The existing plant is located in Miami-Dade County at 1200 NW 137 Avenue in Miami, Florida. The UTM coordinates of the existing facility are Zone 17, 558.20 km East, and 2851.20 km North.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit. As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

STATEMENT OF BASIS

This air pollution 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 permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) 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 must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

(DRAFT)

Joseph Kahn, Director
Division of Air Resource Management

(Date)

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit with Appendices) was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on _____(DRAFT)_____ to the persons listed below.

Mr. Robert Rogers, CEMEX Construction Materials, Florida, LLC (rrogers@cemexusa.com)
Mr. Charles Walz, CEMEX Construction Materials, Florida, LLC (cwalz@cemexusa.com)
Mr. Max Lee, Koogler and Associates, Inc. (mlee@kooglerassociates.com)
Ms. Mallika Muthia, P.E., Miami-Dade Co. Environmental Resource Management (muthim@miamidade.gov)
Ms. Vickie Gibson, DEP BAR Reading File (victoria.gibson@dep.state.fl.us)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

(DRAFT)

_____ _____
(Clerk) (Date)

FACILITY DESCRIPTION

CEMEX Construction Materials Florida, LLC (CEMEX) operates the existing Miami Cement Plant located in Miami-Dade County at 1200 NW 137 Avenue in Miami, Florida. The primary Standard Industrial Classification Code (SIC) for the facility is No. 3241 for cement production. The unit includes a continuous opacity monitoring system (COMS), a continuous emissions monitoring systems (CEMS) for sulfur dioxide (SO_2), nitrogen oxides (NO_X) and total hydrocarbons (THC) and a continuous process monitor for carbon monoxide (CO).

PROPOSED PROJECT

CEMEX Miami proposes a temporary trial burn of 5,000 tons of clean woody biomass with an option of another 2,000 tons if necessary to supplement the primary fuel of coal in the cement kiln. The stated purpose of the project is to examine the feasibility of receiving, storing, handling and firing the clean woody biomass.

This project is subject to the general preconstruction review requirements in Rule 62-212.300, Florida Administrative Code (F.A.C.) and is not subject to PSD preconstruction review requirements for major stationary sources pursuant to Rule 62-212.400, F.A.C. This project will affect the following existing emissions unit.

Facility ID No. 0250014	
ID No.	**Emission Unit Description**
018	Kiln System (In-Line Kiln/Raw Mill/Clinker Cooler)

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility does not operate a unit subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

1. Permitting Authority: The permitting authority for this project is the Bureau of Air Regulation, Division of Air Resource Management, Florida Department of Environmental Protection (Department). The Bureau of Air Regulation's mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. All documents related to applications for permits to operate an emissions unit shall be submitted to the Air Resource Section of the Miami-Dade County Department of Environmental Resource Management at 701 NW 1st Court, Ste. 400, Miami, FL 33136.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Air Resource Section of the Miami-Dade County Department of Environmental Resource Management at 701 NW 1st Court, Ste. 400, Miami, FL 33136.
3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); Appendix C (Common Conditions); and Appendix D (Common Testing Requirements).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Source Obligation: At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification. [Rule 62-212.400(12), F.A.C.]
8. Application for Title V Permit: This project authorizes a temporary trial burn to collect operational and emissions data to evaluate the feasibility of co-firing clean woody biomass with the primary fuel of coal. Based on the data collected, the permittee may seek permanent authorization to co-fire clean woody biomass with coal. Permanent authorization will require submittal of an application for an air construction permit as well a revision to the Title V air operation permit. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

A. CEMEX Miami Kiln System

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
018	Kiln System (In-Line Kiln/Raw Mill/Clinker Cooler)

EXISTING PERMITS

1. Other Permits: The conditions of this permit temporarily supplement all previously issued air construction and operation permits for this emissions unit. These conditions are in addition to all other applicable permit conditions and regulatory requirements. The permittee shall continue to comply with the conditions of those permits, which include restrictions and standards regarding capacities, production, operation, fuels, emissions, monitoring, record keeping, reporting, etc. [Rule 62-4.070, F.A.C.]

TEMPORARY PROJECT

2. Clean Woody Biomass: In accordance with the conditions of this permit, the permittee is authorized to co-fire with coal up to 5000 tons of clean woody biomass manufactured by the Miami-Dade County Resource Recovery Facility (MDCRRF). If the permittee later determines that this amount is insufficient to complete the trial burn, the permittee may fire an additional 2000 tons of clean woody biomass after providing written notification to the Bureau of Air Regulation and the Compliance Authority. Total clean woody biomass firing shall not exceed 7000 tons. [Application No. 0250014-031-AC and Rule 62-4.070(3), F.A.C.]
3. Trial Period: Once clean woody biomass has been first fired in the kiln, the permittee shall have 120 calendar days to complete the trial burn and conduct the tests. After the 120 calendar days, the permittee is no longer authorized to fire clean woody biomass and must remove any remaining material. [Rule 62-4.070(3), F.A.C.]
4. Temporary Equipment: The permittee is authorized to temporarily install and operate the following equipment for the trial: a Schenk Accurate feeder system or equivalent to measure and dose clean woody biomass pneumatically through a port into the precalciner; a diesel-powered shredder (approximately 630 horsepower); and other miscellaneous equipment to unload, store and handle the clean woody biomass. Only diesel fuel shall be fired. [Application No. 0250014-031-AC]
5. Temporary Alternative Fuel: During the temporary trial period, the permittee is authorized to fire clean woody biomass subject to the following:
   a. For the trial period, permittee is authorized to accept clean woody biomass manufactured by the MDCRRF (supplier). The clean woody biomass shall be free of bulky waste, metals, painted or treated materials and soils and be sized to approximately 1-3" or less from shredding by the supplier.
   b. Clean woody biomass shall be delivered in covered trucks and unloaded to a paved and covered area (West Hall Building) for storage. Clean woody biomass is typically 49.4% moisture by weight and is not expected to be a source of fugitive dust emissions. However, the plant shall apply water as necessary to respond to fugitive dust problems.
   c. Prior to accepting any clean woody biomass, the permittee shall provide to the compliance authority a preliminary schedule for receiving the clean woody biomass and for conducting the trial burn. This schedule shall be updated as necessary. The permittee shall maintain a written log of the date of delivery and the amount of clean woody biomass delivered. The permittee shall provide at least a one-day advance notice of the initial biomass delivery.
   d. Once clean woody biomass is first fired, the permittee shall complete the trial burn within 120 successive calendar days. If unforeseen problems delay the trial burn, the plant may continue the trial for an

additional 30 successive calendar days after receiving written approval by the Bureau of Air Regulation. [Application No. 0250014-031-AC and Rule 62-210.200(PTE), F.A.C.]

6. Restricted Operation: During the trial period, clean woody biomass shall be fired in the existing cement kiln at a maximum rate of approximately 30% of the maximum heat input rate when firing only coal. Based on previous heating values for clean woody biomass, this is approximately17.6 tons of clean woody biomass per hour. The purpose of the trial is to determine the impacts for a range of firing rates (e.g. 6.1 tons/hour, 12.2 tons/hour and 17.6 tons/hour). During the trial period, no more than 7000 tons of clean woody biomass shall be burned. [Application No. 0250014-031-AC and Rule 62-210.200(PTE), F.A.C.]
7. Re-Shredding: If problems with feeding the clean woody biomass occur, the permittee may re-shred and screen the clean woody biomass to obtain a more desirable size. Once it is determined that re-shredding on site is necessary, the permittee shall contact the supplier and require the supplier to re-shred subsequent shipments prior to delivery to the CEMEX Miami Cement Plant. [Application No. 0250014-031-AC and Rule 62-4.070(3), F.A.C.]
8. Sampling: During the trial period and at least once every four hours that clean woody biomass is fired, the permittee shall take a grab sample of as-fired clean woody biomass from the fuel feed system in a one gallon container (approximate). [Application No. 0250014-031-AC and Rule 62-4.070(3), F.A.C.]
9. Analyses: The permittee shall combine all samples of as-fired clean woody biomass collected during a calendar day and take a representative composite sample. The composite sample shall be analyzed for: the heating value, moisture content, volatiles, ash content, sulfur content, chlorine content, copper, chromium and arsenic. [Application No. 0250014-031-AC and Rule 62-4.070(3), F.A.C.]
10. Process Monitoring: For the trial, the plant will monitor: the average fuel feed rates, the average kiln feed rates, the average clinker production rates, the total fuel consumption rates, the temperature at the inlet to the baghouse, the number of times a trial was stopped and the reason for stopping a trial. [Application No. 0250014-031-AC and Rule 62-4.070(3), F.A.C.]

CONTINUOUS MONITORING REQUIREMENTS

11. Emissions Monitoring: For the trial period, the plant shall continue to monitor nitrogen oxides, sulfur dioxide and total hydrocarbon emissions with the existing certified continuous emissions monitoring systems, opacity with the existing certified continuous opacity monitoring system and carbon monoxide emissions with the existing process monitors. This data shall be compared with baseline data and used to determine the corresponding emissions impacts from firing clean woody biomass. [Application No. 0250014-031-AC and Rule 62-4.070(3), F.A.C.]

TESTING REQUIREMENTS

12. Particulate Matter (PM) Tests: In accordance with EPA Method 5 or 201/201A, the permittee shall conduct the following tests on the cement kiln.
    a. For baseline PM emissions data, the permittee may use data collected from previous PM compliance tests that were conducted when firing only coal at permitted capacity. If existing test data is used, the permittee shall average the test results for each test meeting these requirements conducted over the last five operating years when firing coal at permitted capacity. Alternatively, the permittee may determine baseline PM emissions by conducting at least three 1-hour test runs when firing only coal at permitted capacity.

b. The permittee shall determine PM emissions when co-firing clean woody biomass with coal by conducting at least three 1-hour test runs when firing the highest blend of clean woody biomass with coal at permitted capacity.

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

13. Other Test Methods: EPA Methods 1 – 4 shall be used as necessary to support the other test methods. [Rules 62-4.070(3), F.A.C.]

14. Test Requirements: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit and the current Title V air operation permit. When in conflict, the permittee shall follow the requirements of the current Title V air operation permit. [Rule 62-297.310(7)(a)9, F.A.C.]

RECORDS AND REPORTS

15. Stack Test Reports: The permittee shall prepare and submit reports for all required stack tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. For each test run, the report shall also indicate: the fuel firing rates of each fuel (tons/hour), heat input rates from firing each fuel (MMBtu/hour), the percent of clean woody biomass fired and the temperature at the baghouse inlet. [Rule 62-297.310(8), F.A.C.]

16. Trial Burn Summary Report: Within 90 days of completing the temporary trial, the permittee shall submit a report to the Bureau of Air Regulation and Compliance Authority summarizing: the analytical results; problems with unloading, storing, handling or firing the clean woody biomass; problems with the material size and any re-shredding conducted on site; the emissions monitoring data; kiln production/process data; inlet temperatures to the baghouse; and a conclusion as to the feasibility and practicality of clean woody biomass as an alternative fuel. The report shall specifically identify any problems that occurred during the trial and the expected cause of the problem. [Application No. 0250014-031-AC and Rule 62-4.070(3), F.A.C.]

Contents

CITATION FORMATS

The following illustrate the formats used in the permit to identify applicable requirements from permits and regulations.

Old Permit Numbers

Example: Permit No. AC50-123456 or 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 for that county
"001" identifies the specific permit project number
"AC" identifies the permit as an air construction permit
"AF" identifies the permit as a minor source federally enforceable state operation permit
"AO" identifies the permit as a minor source air operation permit
"AV" identifies the permit as a major Title V air operation permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: "PSD" means issued pursuant to the preconstruction review requirements of 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 number

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 CRF 60.7]

Means: Title 40, Part 60, Section 7

GLOSSARY OF COMMON TERMS

° F: degrees Fahrenheit
µg: microgram
AAQS: Ambient Air Quality Standard
acf: actual cubic feet
acfm: actual cubic feet per minute
ARMS: Air Resource Management System (Department's database)
BACT: best available control technology
bhp: brake horsepower
Btu: British thermal units
CAM: compliance assurance monitoring
CEMS: continuous emissions monitoring system
cfm: cubic feet per minute
CFR: Code of Federal Regulations

CAA: Clean Air Act

CMS: continuous monitoring system

CO: carbon monoxide

CO_2: carbon dioxide

COMS: continuous opacity monitoring system

DARM: Division of Air Resource Management

DEP: Department of Environmental Protection

Department: Department of Environmental Protection

dscf: dry standard cubic feet

dscfm: dry standard cubic feet per minute

EPA: Environmental Protection Agency

ESP: electrostatic precipitator (control system for reducing particulate matter)

EU: emissions unit

F: fluoride

F.A.C.: Florida Administrative Code

F.A.W.: Florida Administrative Weekly

F.D.: forced draft

F.S.: Florida Statutes

FGD: flue gas desulfurization

FGR: flue gas recirculation

ft^2: square feet

ft^3: cubic feet

gpm: gallons per minute

gr: grains

HAP: hazardous air pollutant

Hg: mercury

I.D.: induced draft

ID: identification

kPa: kilopascals

lb: pound

MACT: maximum achievable technology

MMBtu: million British thermal units

MSDS: material safety data sheets

MW: megawatt

NESHAP: National Emissions Standards for Hazardous Air Pollutants

NO_X: nitrogen oxides

NSPS: New Source Performance Standards

O&M: operation and maintenance

O_2: oxygen

Pb: lead

PM: particulate matter

PM_{10}: particulate matter with a mean aerodynamic diameter of 10 microns or less

ppm: parts per million

ppmv: parts per million by volume

ppmvd: parts per million by volume, dry basis

QA: quality assurance

QC: quality control

PSD: prevention of significant deterioration

psi: pounds per square inch

PTE: potential to emit

RACT: reasonably available control technology

RATA: relative accuracy test audit

RBLC: EPA's RACT/BACT/LAER Clearinghouse

SAM: sulfuric acid mist

scf: standard cubic feet

scfm: standard cubic feet per minute

SIC: standard industrial classification code

SIP: State Implementation Plan

SNCR: selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides)

SO_2: sulfur dioxide

TPD: tons/day

TPH: tons per hour

TPY: tons per year

TRS: total reduced sulfur

UTM: Universal Transverse Mercator coordinate system

VE: visible emissions

VOC: volatile organic compounds

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 "permitconditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861,F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiateenforcement 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 conditionsof this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in subsections 403.987(6) and 403.722(5), F.S., the issuance of this permit does not convey anyvested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or anyinvasion of personal rights, nor any infringementof federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total projectwhich are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment oftitle, and not constitute authority for the use of submerged lands unless herein provided and the necessary title orleasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fundmay 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 penaltiestherefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Departmentrules, 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 (andrelated appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of thispermit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities orsimilar systems when necessary to achieve compliance with the conditions of the permit and when required byDepartment 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 reasonable times, access to thepremises where the permitted activity is located or conducted to:

   a. Have access to and copy any records that must be kept under 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 orlimitation specified in this permit, the permittee shall immediately provide the Department with the followinginformation:

   a. A description of and cause of noncompliance; and

   b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time thenoncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of thenoncompliance. The permittee shall be responsible for any and all damages which may result and may be subject toenforcement 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 andother 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 sourcearising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedureand appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonabletime for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes orDepartment rules. A reasonable time for compliance with a new or amended surface water quality standard, otherthan those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.

11. This permit is transferable only upon Department approval in accordance with 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 (applicable for small boiler BACT/not applicable);

    b. Determination of Prevention of Significant Deterioration (not applicable); and

    c. Compliance with New Source Performance Standards (applicable/not applicable).

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 stipulatedby 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 for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

    c. Records of monitoring information shall include:

        (a) The date, exact place, and time of sampling or measurements;

        (b) The person responsible for performing the sampling or measurements;

        (c) The dates analyses were performed;

        (d) The person responsible for performing the analyses;

        (e) The analytical techniques or methods used;

        (f) The results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any informationrequired by law which is needed to determine compliance with the permit. If the permittee becomes aware therelevant facts were not submitted or were incorrect in the permit application or in any report to the Department, suchfacts or information shall be corrected promptly.

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

EMISSIONS AND CONTROLS

1. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]

2. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]

3. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed 2 hours in any 24-hour period unless specifically authorized by the Department for longer duration. Pursuant to Rule 62-210.700(5), F.A.C., the permit subsection may specify more or less stringent requirements for periods of excess emissions. Rule 62-210-700(Excess Emissions), F.A.C., cannot vary or supersede any federal NSPS or NESHAP provision. [Rule 62-210.700(1), F.A.C.]

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

5. Excess Emissions - Notification: In case of excess emissions resulting from malfunctions, the permittee shall notify the Compliance Authority in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]

6. VOC or OS Emissions: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (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), F.A.C.]

7. Objectionable Odor Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

8. General Visible Emissions: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

9. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

RECORDS AND REPORTS

10. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least 5 years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rule 62-213.440(1)(b)2, F.A.C.]

11. Emissions Computation and Reporting:

    a. *Applicability.* This rule sets forth required methodologies to be used by the owner or operator of a facility for computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for computing emissions for purposes of the reporting requirements of subsection 62-210.370(3) and paragraph 62-212.300(1)(e), F.A.C., or of any permit condition that requires emissions be computed in accordance

with this rule. This rule is not intended to establish methodologies for determining compliance with the emission limitations of any air permit. [Rule 62-210.370(1), F.A.C.]

b. *Computation of Emissions.* For any of the purposes set forth in subsection 62-210.370(1), F.A.C., the owner or operator of a facility shall compute emissions in accordance with the requirements set forth in this subsection.

(1) Basic Approach. The owner or operator shall employ, on a pollutant-specific basis, the most accurate of the approaches set forth below to compute the emissions of a pollutant from an emissions unit; provided, however, that nothing in this rule shall be construed to require installation and operation of any continuous emissions monitoring system (CEMS), continuous parameter monitoring system (CPMS), or predictive emissions monitoring system (PEMS) not otherwise required by rule or permit, nor shall anything in this rule be construed to require performance of any stack testing not otherwise required by rule or permit.

(a) If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the owner or operator shall use such CEMS to compute the emissions of the pollutant, unless the owner or operator demonstrates to the department that an alternative approach is more accurate because the CEMS represents still-emerging technology.

(b) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C, but emissions of the pollutant can be computed pursuant to the mass balance methodology of paragraph 62-210.370(2)(c), F.A.C., the owner or operator shall use such methodology, unless the owner or operator demonstrates to the department that an alternative approach is more accurate.

(c) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the owner oroperator shall use an emission factor meeting the requirements of paragraph 62-210.370(2)(d), F.A.C., unless the owner or operator demonstrates to the department that an alternative approach is more accurate.

(2) Continuous Emissions Monitoring System (CEMS).

(a) An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:

1) The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60, Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75, all adopted by reference at Rule 62-204.800, F.A.C.; or

2) The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.

(b) Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:

1) A calibrated flow meter that records data on a continuous basis, if available; or

2) The average flow rate of all valid stack tests conducted during a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.

(c) The owner or operator may use CEMS data in combination with an appropriate f-factor, heat input data, and any other necessary parameters to compute emissions if such method is demonstrated by the owner or operator to be more accurate than using a stack gas volumetric flow rate as set forth at subparagraph 62-210.370(2)(b)2., F.A.C., above.

(3) Mass Balance Calculations.

(a) An owner or operator may use mass balance calculations to compute emissions of a pollutant for purposes of this rule provided the owner or operator:

1) Demonstrates a means of validating the content of the pollutant that is contained in or created by all materials or fuels used in or at the emissions unit; and

2) Assumes that the emissions unit emits all of thepollutant that is contained in or created by any material or fuel used in or at the emissions unit if it cannot otherwise be accounted for in the process or in the capture and destruction of the pollutant by the unit's air pollution control equipment.

(b) Where the vendor of a raw material or fuel which is used in or at the emissions unit publishes a range of pollutant content from such material or fuel, the owner or operator shall use the highest value of the range to compute the emissions, unless the owner or operator demonstrates using site-specific data that another content within the range is more accurate.

(c) In the case of an emissions unit using coatings or solvents, the owner or operator shall document, through purchase receipts, records and sales receipts, the beginning and ending VOC inventories, the amount of VOC purchased during the computational period, and the amount of VOC disposed of in the liquid phase during such period.

(4) Emission Factors.

a. An owner or operator may use an emission factor to compute emissions of a pollutant for purposes of this rule provided the emission factor is based on site-specific data such as stack test data, where available, unless the owner or operator demonstrates to the department that an alternative emission factor ismore accurate. An owner or operator using site-specific data to derive an emission factor, or set of factors, shall meet the following requirements.

1) If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid stack tests conducted during at least a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.

2) Multiple emission factors shall be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.

3) The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.

b. If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factorbased on a similar, but different, process.

(5) Accounting for Emissions During Periods of Missing Data from CEMS, PEMS, or CPMS. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of missing data from CEMS, PEMS, or CPMS using other site-specific data to generate a reasonable estimate of such emissions.

(6) Accounting for Emissions During Periods of Startup and Shutdown. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.

(7) Fugitive Emissions. In computing the emissions of a pollutant from a facility or emissions unit, the owner or operator shall account for the fugitive emissions of the pollutant, to the extent quantifiable, associated with such facility or emissions unit.

(8) Recordkeeping. The owner or operator shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the department for any regulatory purpose.

[Rule 62-210.370(2), F.A.C.]

c. *Annual Operating Report for Air Pollutant Emitting Facility*

(1) The Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be completed each year for the following facilities:

a. All Title V sources.

b. All synthetic non-Title V sources.

c. All facilities with the potential to emit ten (10) tons per year or more of volatile organic compounds or twenty-five (25) tons per year or more of nitrogen oxides and located in an ozone nonattainment area or ozone air quality maintenance area.

d. All facilities for which an annual operating report is required by rule or permit.

(2) Notwithstanding paragraph 62-210.370(3)(a), F.A.C., no annual operating report shall be required for any facility operating under an air general permit.

(3) The annual operating report shall be submitted to the appropriate Department of Environmental Protection (DEP) division, district or DEP-approved local air pollution control program office by April 1 of the following year. If the report is submitted using the Department's electronic annual operating report software, there is no requirement to submit a copy to any DEP or local air program office.

(4) Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C., for purposes of the annual operating report.

(5) Facility Relocation. Unless otherwise provided by rule or more stringent permit condition, the owner or operator of a relocatable facility must submit a Facility Relocation Notification Form (DEP Form No. 62-210.900(6)) to the Department at least 30 days prior to the relocation. A separate form shall be submitted for each facility in the case of the relocation of multiple facilities which are jointly owned or operated.

[Rule 62-210.370(3), F.A.C.]

Unless otherwise specified in the permit, the following testing requirements apply to all emissions units that require testing.

COMPLIANCE TESTING REQUIREMENTS

1. 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.]

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

3. 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.]

4. Applicable Test Procedures:

   a. Required Sampling Time.

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

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

         (a) For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.

         (b) The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.

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

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

c. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.

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

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

TABLE 297.310-1 CALIBRATION SCHEDULE

ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calibration liquid in glass	5° F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5° F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/- 0.001" mean of at least three readings; Max. deviation between readings, 0.004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, when 5% change observed, annually	Spirometer or calibrated wet test or dry gas test meter	2%
	2. One Point: Semiannually		
	3. Check after each test series	Comparison check	5%

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

5. 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 instrumentsnecessary 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.]

6. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C. Sampling facilities include sampling ports, work platforms,access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must also comply with all applicable Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

   a. Permanent Test Facilities. The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.

   b. Temporary Test Facilities. The owner or operator of an emissions unit that is not required to conducta compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.

   c. Sampling Ports.

      (1) All sampling ports shall have a minimum inside diameter of 3 inches.

      (2) The ports shall be capable of being sealed when not in use.

      (3) The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.

      (4) For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.

      (5) On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.

   d. Work Platforms.

      (1) Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.

      (2) On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.

      (3) On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.

      (4) All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toe board, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.

   e. Access to Work Platform.

      (1) Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.

      (2) Walkways over free-fall areas shall be equipped with safety rails and toe boards.

   f. Electrical Power.

(1) A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.

(2) If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.

g. Sampling Equipment Support.

(1) A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.

(a) The bracket shall be a standard 3 inch × 3 inch × one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.

(b) A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.

(c) The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.

(2) A complete monorail or dual rail arrangement may be substituted for the eyebolt and bracket.

(3) When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

[Rule 62-297.310(6), F.A.C.]

7. 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 a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.

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

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

(a) Did not operate; or

(b) In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours,

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

(a) Visible emissions, if there is an applicable standard;

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

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

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

6. For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.

7. For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to paragraph 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

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

10. An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to subsection 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to subparagraph 62-213.300(2)(a)1., F.A.C., or paragraph 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in paragraph 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing.

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

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

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

REPORTS

8. Test Reports:

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

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

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

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

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

(3) The owner or operator of the emissions unit.

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

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

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

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

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

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

(10) The number of points sampled and configuration and location of the sampling plane.

(11) For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.

(12) The type, manufacturer and configuration of the sampling equipment used.

(13) Data related to the required calibration of the test equipment.

(14) Data on the identification, processing and weights of all filters used.

(15) Data on the types and amounts of any chemical solutions used.

(16) Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.

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

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

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

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

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

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

MISCELLANEOUS

9. Stack and Duct: The terms stack and duct are used interchangeably in this rule. [Rule 62-297.310(9), F.A.C.]

Livingston, Sylvia

From: Livingston, Sylvia
Sent: Friday, May 21, 2010 2:23 PM
To: 'rrogers@cemexusa.com'
Cc: 'cwalz@cemexusa.com'; 'mlee@kooglerassociates.com'; 'muthim@miamidade.gov'; Gibson, Victoria; Koerner, Jeff; DeVore, Christy; Walker, Elizabeth (AIR)
Subject: CEMEX CONSTRUCTION MATERIALS FL LLC. - MIAMI CEMENT PLANT; 0250014-031-AC
Attachments: 0250014-031-AC_Intent.pdf

Dear Sir/ Madam:

Attached is the official **Notice of Intent to Issue** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0250014.031.AC.D_pdf.zip

Owner/Company Name: CEMEX CONSTRUCTION MATERIALS FL. LLC.
Facility Name: MIAMI CEMENT PLANT
Project Number: 0250014-031-AC
Permit Status: DRAFT
Permit Activity: CONSTRUCTION
Facility County: MIAMI-DADE
Processor: Christy DeVore

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "*Air Permit Documents Search*" website at http://www.dep.state.fl.us/air/emission/apds/default.asp.

Permit project documents are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation

Sylvia Livingston
Bureau of Air Regulation
Division of Air Resource Management (DARM)
850/921-9506
sylvia.livingston@dep.state.fl.us

Note: The attached document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html> .

Livingston, Sylvia

From: Charles E Walz [charles.walz@cemex.com]
Sent: Tuesday, May 25, 2010 3:55 PM
To: Livingston, Sylvia
Subject: Re: CEMEX CONSTRUCTION MATERIALS FL LLC. - MIAMI CEMENT PLANT; 0250014-031-AC

Yes

I can view the documents

Thanks

Charles Walz

Charles E Walz
Environmental Manager - Miami Cement Plant - Environmental - United States of America
Office : +1305(229)2955 , Fax: +1305(229)8015 , Mobile: +1305(586)8379
Address: 1200 NW 137th Ave Miami, Florida 33182
e-Mail: Charles.Walz@CEMEX.com
www.cemexusa.com

Livingston, Sylvia

From: Rogers, Robert [RRogers@cemexusa.com]
Sent: Friday, May 21, 2010 2:57 PM
To: Livingston, Sylvia
Subject: RE: CEMEX CONSTRUCTION MATERIALS FL LLC. - MIAMI CEMENT PLANT; 0250014-031-AC

Received and able to view all documents.

Thanks
Bob

From: Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]
Sent: Friday, May 21, 2010 2:23 PM
To: Rogers, Robert
Cc: cwalz@cemexusa.com; mlee@kooglerassociates.com; muthim@miamidade.gov; Gibson, Victoria; Koerner, Jeff; DeVore, Christy; Walker, Elizabeth (AIR)
Subject: CEMEX CONSTRUCTION MATERIALS FL LLC. - MIAMI CEMENT PLANT; 0250014-031-AC

Dear Sir/ Madam:

Attached is the official **Notice of Intent to Issue** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

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Owner/Company Name: CEMEX CONSTRUCTION MATERIALS FL. LLC.
Facility Name: MIAMI CEMENT PLANT
Project Number: 0250014-031-AC
Permit Status: DRAFT
Permit Activity: CONSTRUCTION
Facility County: MIAMI-DADE
Processor: Christy DeVore

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Permit project documents are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation

Livingston, Sylvia

From: Max Lee [mlee@kooglerassociates.com]
Sent: Friday, May 21, 2010 2:38 PM
To: Livingston, Sylvia
Subject: Read: CEMEX CONSTRUCTION MATERIALS FL LLC. - MIAMI CEMENT PLANT; 0250014-031-AC
Attachments: ATT00001