FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
BOB MARTINEZ CENTER
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

RICK SCOTT
GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

August 30, 2013

Sent by Electronic Mail – Received Receipt Requested

Mr. Luis Lopez, Cement Plant Manager
Cemex Construction Materials, LLC
1200 NW 137 Avenue
Miami, Florida 33182

Re: Exemption from the Requirement to Obtain an Air Construction Permit
Cemex Miami Cement Plant
Project No. 0250014-048-AC
Short-Term Trial of Oxygen Enrichment

Dear Mr. Walz:

On August 23, 2013, Max Lee, PhD., P.E., submitted a request on your behalf for an exemption from the requirement to obtain an air construction permit to conduct a short-term trial of oxygen enrichment in the existing kiln at the Cemex Miami Cement Plant, which is located in Miami-Dade county at 1200 NW 137 Avenue, Miami, Florida. The goal of the project is to increase the effective use of alternative fuel materials through oxygen enrichment. The following describes the temporary trial and the necessary equipment.

Equipment

The oxygen enrichment system consists of three main components: an oxygen supply system, an oxygen flow control system (with safety interlocks), and an oxygen injection system. In general, the system can be installed with little or no downtime. The only modifications typically required are to provide entry of an oxygen injector into the desired location for oxygen enrichment.

For the demonstration and testing of oxygen injection locations, oxygen will be supplied via truck (approximately two trucks per day maximum) to the plant in a liquid form and stored in specially designed cryogenic tanks. The LOX supply system will consist of a cryogenic liquid storage tank, ambient air vaporizers and houseline pressure control manifold. LOX will flow from the storage tank to the ambient air vaporizers, where it will be converted to a gas. Gaseous oxygen will flow through the pressure control manifold to the customer houseline. Near the use point, a flow control system will regulate the flow of oxygen to the injector.

Trial Process

The project is expected to last for up to two months while investigating the injection of up to 4 tons/hour of pure oxygen in either or both: (1) the precalciner tertiary air chamber, and/ or (2) the main burner of the kiln. The temporary equipment will only allow oxygen injection at a single location at a time. Injection is estimated to result in potential oxygen levels of 23.2% at the calciner and 24.4% at the main burner. The increased air flow at the exhaust stack is expected to be less than 0.6%. Operation of current airflow blower system should not be impacted by this increased volume. As a practical matter, the oxygen injection rate will not likely be sustained at 4 ton/hour for any significant period of time given this is a trial in which substantial downtime is expected. Activities such as moving the injection equipment from location to location will limit the continuous use of the injection equipment.

Emissions

The injection of pure oxygen in these fuel zones is intended to improve overall combustion and the existing kiln is expected to operate within the permitted emissions standards during the temporary trial. The existing kiln continuously monitors emissions of carbon monoxide (CO, process monitor), nitrogen oxides (NOx), sulfur dioxide (SO_2), and opacity.

Determination: Pursuant to Rule 62-4.040(1)(b) of the Florida Administrative Code (F.A.C.) and for the reasons stated in the Technical Evaluation, the Office of Permitting and Compliance determines that the activity will not emit air pollutants, "... in sufficient quantity, with respect to its character, quality or content, and the circumstances surrounding its location, use and operation, as to contribute significantly to the pollution problems within the State, so that the regulation thereof is not reasonably justified." Therefore, the project is exempt from the requirement to obtain an air construction permit subject to the following requirements:

1. This authorization expires on September 1, 2014.
2. The permittee shall provide advance notice and a schedule for conducting the trial.
3. Once started, the temporary trial shall be completed within 60 operational days. For good cause, the permittee may request an extension of the trial.
4. During the trial, the permittee shall keep records of the following: oxygen injection locations; oxygen injection rate (tons/hour); oxygen injection duration (hours/minutes); kiln production; fuels fired; and continuous monitoring data for CO, NOx, SO_2, and opacity.
5. Within 5 days of completing the trial, the permittee shall provide notice that the trial has ended.
6. Within 60 days of completing the trial, the permittee shall provide a report describing the trial, identifying operational issues, a conclusion on effectiveness, and a summary of the following data collected: oxygen injection locations; oxygen injection rate (tons/hour); oxygen injection duration (hours/minutes); kiln production; fuels fired; and continuous monitoring data for CO, NOx, SO_2, and opacity.
7. Notifications and reports shall be provided to the Division of Air Resource Management and the approved Miami-Dade local air program.

This determination may be revoked if the proposed activity is substantially modified or the basis for the exemption is determined to be materially incorrect. A copy of this letter shall be maintained at the site of the proposed activity. This permitting decision is made pursuant to Chapter 403, Florida Statutes.

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, F.A.C. The Permitting Authority responsible for making a permit determination for this project is the Office of Permitting and Compliance in the Department of Environmental Protection's Division of Air Resource Management. The Permitting Authority's physical address is: 2600 Blair Stone Road, Tallahassee, Florida 32301. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/717-9000.

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 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 must be filed within 21 days of receipt of this exemption from air permitting requirements. 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 permitting action. 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.

Effective Date: This permitting decision is final and effective on the date filed with the clerk of the Permitting Authority unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this action will not be effective until further order of the Permitting Authority.

Judicial Review: Any party to this permitting decision (order) has the right to seek judicial review of it under Section 120.68, F.S., 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

Jeffery F. Koerner, Program Administrator
Office of Permitting and Compliance

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 the date indicated below to the following persons.

Mr. Luis Lopez, Cemex (luisguillermo.lopez@cemex.com)
Mr. Charles Walz, Cemex (charles.walz@cemex.com)
Mr. Max Lee, PE, Koogler & Associates, Inc. (mlee@kooglerassociates.com)
Mr. Patrick Wong, Miami-Dade Local Air program (wongp@miamidade.gov)
Mr. Joe Lurix, DEP Southeast District (joe.lurix@dep.state.fl.us)
Ms. Barbara Friday, DEP OPC (barbara.friday@dep.state.fl.us)
Ms. Lynn Scearce, DEP OPC (lynn.scearce@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.

Lynn Scearce, August 30, 2013