#### COMMONWEALTH OF PUERTO RICO / OFFICE OF THE GOVERNOR

TITLE V FINAL OPERATING PERMIT AIR QUALITY AREA ENVIRONMENTAL QUALITY BOARD



Permit Number: Permit Application Received: Issue and/or Effectiveness Date: Expiration Date: PFE- TV-3274-58-0996-0009 September 26, 1996 December 23, 2005<sup>1</sup> December 23, 2010

In accordance with the provisions of Part VI of the Regulation for the Control of Atmospheric Pollution (RCAP) and the Code of Federal Regulations, Title 40, Part 70

#### CEMEX DE PUERTO RICO, INC. (BEFORE PUERTO RICAN CEMENT COMPANY, INC.) PONCE, PUERTO RICO

hereinafter referred to as **Cemex** or **the permittee**, is authorized to operate a stationary source of air pollutants limited to the emission units and conditions described in this permit. Until such time as this permit expires, is modified or revoked, CEMEX is allowed to discharge air pollutants from those processes and activities directly related to or associated with air pollutant sources in accordance with the requirements, limitations and conditions of this permit.

The conditions in this permit are federally and state enforceable. Requirements, which are only state enforceable are identified as such in the permit. A copy of this permit shall be kept on-site at the above-mentioned facility at all times.

<sup>1</sup> The underlined conditions were revised or added by a reconsideration process. The effective date of these conditions will be December 12, 2007.

# TABLE OF CONTENTS

Section I	General Information	1
А.	Facility Information	1
В.	Process Description	2
Section II	Emission Unit's Description	4
А.	Lime Plant	4
В.	Cement Plant	6
Section III	General Permit Conditions	9
Section IV	Requirements and Emission Caps	20
А.	Facility Requirements	20
В.	Fuel Consumption	20
C.	Kiln's Operational Schedule	21
Section V	Permit Terms	22
А.	Compliance with Rule 404 of the RCAP	22
В.	Crushers equipment	23
C.	Standards of Performance for Coal Preparation Plants (40 CFR, Part 60, Subpart Y)	26

# **TABLE OF CONTENTS (CONT.)**

D.	Lime Plant Operational Limits	28
E.	Cement Plant Operational Limits	40
F.	Alternate Operational Scenarios	50
Section VI	Compliance with the National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry (40 CFR, Part 63, Subpart LLL)	51
А.	General Conditions	51
В.	Specific Conditions	51
C.	Performance Test Requirements	53
D.	Sampling Requirements	54
E.	Notification Requirements	58
F.	Reporting Requirements	59
G.	Recordkeeping requirements	61
H.	NSPS Exemptions	61
Section VII	Insignificant Emission Units	62
А.	Lime Plant	62
B.	Cement Plant	63

### **TABLE OF CONTENTS (CONT.)**

Section	n VIII	Permit Shield	64
Section	n IX	Permit Approval	65
Appen	dices		66
	Appen	dix 1 – Definitions and Abbreviations	67
Annex	ed		69
	Annex	ted I – Control Device Equipment	70
	A.	Lime Plant	70
	B.	Cement Plant	70
	Annex	ed II – Combustion Units	71

#### Section I – General Information

#### A. Facility Information

Name of the Company : CEMEX S.A. de C.V.

Mailing Address : PO Box 331349

City : Ponce State : PR Zip Code : 00733-1349

Plant Name : Cemex de Puerto Rico, Inc.

Plant Address : State Road PR-123, Km 8, Ponce, Puerto Rico

Mailing Address of the Plant : PO Box 331349, Ponce, PR 00733-1349

Responsible Officer : Mr. Ramiro Lozano, Operations Director Cemex de Puerto Rico, Inc.

Phone Number: (787) 783-3000

Facility Contact Person : Eng. Juan Colón Environmental Affairs Director

Phone Number : (787) 842-3000

Fax Number: (787) 781-8850

Primary SIC Code : 3274 y 3241

#### **B.** Process Description

Cemex de Puerto Rico, Inc. is a Portland Cement and Lime manufacturing industry. Portland Cement production takes place in Cemex de Puerto Rico and Lime production in Cemex Cal, Inc., subsidiary of Cemex de Puerto Rico. Both facilities are located in the same site at PR123, Km 8.0.

Cement and Lime process are similar; therefore both plants have practically same units. Those units are silos, kilns, bins and mills. Lime manufacturing also includes: lime hydrator and facility-wide fugitive particular matter units. Portland Cement manufacturing also includes: feeders, crushers, startup boilers, bins and classifiers.

Lime production begins when limestone is delivered by truck to the crusher. The crushed limestone is storage in piles (LP-19). After that it will be delivered in a limestone-receiving bin to kiln 7 (LP-1) where it becomes Lime. Kiln emissions will pass to a baghouse filter (LP-1 DC) before being exhausted from a stack. Then Lime is storage in silos (LP-18a, 18b, 18c, 18d, 18d, and 18e) before pass the hydrator (LP-2) where it is processed. Hydrated Lime is storage in silos (LP-21a, 21b), then to the mill (LP-10) and then back to silos from where will be pack.

Portland Cement production begins when limestone and clay are delivered by truck to crushers (CP-6, 45). After being crushed the limestone and clay mixture is storage in a warehouse until kiln is ready. The mixture is fed to a roller mill and then to a blending silo before being conveyed to kiln 6 (CP-1) or to kiln 4 (CP-3) and kiln 5 (CP-2) where it became clinker, then it will pass to clinker coolers (CP-20, 21, 22). Maximum clinker production is 4,100 tons per day, as establish in EPA's PSD permit. Clinker will be pulverized in small 1,000 hp motors mills (1-10) or in a bigger 4,000 hp ones: Mill 11 (CP-A4) and Mill 12 (CP-A8). Pulverized clinker will be stored in silos from where will be pack.

Mineral coal is transported in ships to the Ponce dock. From the dock is transported in trucks to be stored in piles at the plant. Front loaders feeds coal to a conveyor and it will be transported to a silo before it will pulverize in vertical rolls mill. A cyclone system takes the mill's product follow by four dust collectors and transports it to the pulverized silo. It will be pneumatically transported to cement and lime kilns

CEMEX has three startup boilers (CP-25) to generate steam to pre-heat fuel oil and coal, three storage tanks of No. 6 Fuel Oil and coal pulverization/feed system (CP-36, 37, 38). Boilers burn No. 6 Fuel Oil, kerosene or another liquid fuel, characterized as non-hazard (prior an EQB authorization) and a maximum of sulfur content of 1.5% by weight and exhaust from one stack.

Kilns emissions are controlled by two electrostatic precipitators and exhaust from a 200 ft stack. Lime hydrator emissions are controlled with a scrubber. Besides those equipments CEMEX use: baghouses, water sprays trucks, vacuum cleaners trucks and enclosures to control fugitive particulate matter emissions (PM). CEMEX has paved roads to control facility's fugitive emissions, also use rapid material removal practices when spills occur.

Emission units are described in Section II of this permit and insignificant units are described in Section VIII. CEMEX is considered a major source of emission since it has the potential to emit more than 10 tons per year of hydrogen chloride, more than 25 tons per year of a combination of hazardous atmospheric pollutants, and more than 100 tons per year of each one of the following criteria pollutants: sulfur dioxide (SO<sub>2</sub>), oxides of nitrogen (NO<sub>X</sub>) and particulate matter (PM) and carbon monoxide (CO).

# Section II – Emission Unit's Description

The emissions units regulated by this permit issuance are the following:

# A. Lime Plant

Emission Units	Emission Points	Description				
LP-1	LP-1	Kiln 7, type FLS Swirlax; use for lime manufacturing: with a capacity to produce 39,600 tons of quicklime. It has a Fuller baghouse filter (LP-1 DC) connected as control device with 99% efficiency.				
LP-2	LP-2	Lime hydrator, it could process 10 tons per hour. It has a Norblo Polysphore Scrubber, model N500 (LP-2S), as control device with 99% efficiency.				
LP-10	LP-10	Mill 15 used for lime, clinker or sand, it could process 4 tons per hour. It is not connected to a control device.				
LP-15a	LP-15a	Silo 14 used for lime or cement, with a 10,847 cubic feet storage capacity. As control device, shares a baghouse filter (LP-15a) with Silo 15.				
LP-15b LP-15b		Silo 15 used for lime or cement, with a 10,847 cubic feet storage capacity As control device, shares a baghouse filter (LP-15b) with Silo 14.				
LP-15c	LP-15c	Silo 16 used for lime or cement, with a 10,847 cubic feet storage capacity. It is not connected to a control device.				
LP-18a	LP-18a LP-18a Silo 1 used for lime, with a 16,164 cubic feet stora capacity. It is not connected to a control device.					
LP-18b	LP-18b	Silo 2 used for lime, with a 16,164 cubic feet storage capacity. It is not connected to a control device.				
LP-18c	LP-18c	Silo 3 used for lime, with a 16,164 cubic feet storage capacity. It is not connected to a control device.				

<b>Emission Units</b>	Emission Points	Description
LP-18d	LP-18d	Silo 10a used for lime, with a 26,617 cubic feet storage capacity. It is not connected to a control device.
LP-18e	LP-18e	Silo 10b used for lime, with a 26,617 cubic feet storage capacity. It is not connected to a control device.
LP-19	Fugitive emissions	Pile of crushed Limestone, the plant process 250 tons of limestone per hour. It has a water spray (LP-19 WS) as control device with 80% efficiency.
LP-21a	LP-21a	Silo 7 used for hydrated lime, with a 280 tons capacity. It is not connected to a control device.
LP-21b	LP-21b	Silo 8 used for hydrated lime, with a 280 tons capacity. It is not connected to a control device.
LP-21c	LP-21c	Silo 9 used for hydrated lime, with a 94 tons capacity. It is not connected to a control device.
LP-FW	Fugitive emissions	Lime plant with capacity to produce 52,572 tons of lime. It has water sprays (LP-FW) as control device with 80% efficiency.

# **B.** Cement Plant

Emission Units	Emission Points	Description
CP-1	CP-1	Kiln 6, with a production capacity of 4,100 ton/day. It burns coal, kerosene, No. 6 Fuel Oil or another preauthorized liquid fuel, characterized as non hazard with maximum 1.5% sulfur content by weight authorized by the Board. The emissions of this unit are controlled by a two stages electrostatic precipitator (CP-1).
CP-2	CP-2	Kiln 5, with a capacity of 230.6 MMBtu/hr. It consumes coal or Fuel No. 6. It has a Two Stage Electrostatic Precipitator (CP-2) connected as control device.
CP-3	CP-2	Kiln 4, with a capacity of 174.2 MMBtu/hr. It consumes coal or Fuel No. 6. It has a Two Stage Electrostatic Precipitator (CP-3) connected as control device.
CP-6	CP-6	Old Hammer Mill, process 1,500 ton/hr of limestone, clay, gypsum or clinker. It has a 60ft high baghouse filter (CP-6) connected as control device with 99.9% efficiency.
CP-20	CP-20	Kiln 4 Clinker Cooler with a 26.6 ton/hr capacity. It has a 76ft high baghouse filter (CP-20) connected as control device with 99.9% efficiency.
CP-21	CP-21	Kiln 5 Clinker Cooler with a 35.3 ton/hr capacity. It has a 76ft high baghouse filter (CP-21) connected as control device with 99.9% efficiency.
CP-22	CP-22	Kiln 4 Clinker Cooler with a 4,100 ton/day capacity. It has a 76ft high baghouse filter (CP-22) connected as control device with 99.9 % efficiency.
CP-25	CP-25	Three startup boilers each one with a 3.3 MMBtu/hr capacity. Burns kerosene or No.6 Fuel Oil as fuel type. It is not connected to a control device.

Emission Units	Emission Points	Description
CP-36	CP-36	Coal Mill Feed Bin, with a store capacity of 606 tons. It has a baghouse filter (CP-36) connected as control device with 99.9% efficiency.
CP-37	CP-37	Pulverized Coal Bin, with a store capacity of 20 tons. It has a baghouse filter (CP-37) connected as control device with 99.9% efficiency.
CP-38	CP-38	Coal Mill, it process 45.2 ton/hr. It has a cyclone connected to a system of four baghouses filters (CP-38) as control devices with 99.9% efficiency.
CP-45	CP-45	Primary Crushing Plant. It has a baghouse filter (CP-45) connected as control device with 99.9% efficiency.
CP-A3	CP-A3	Cement Mill 11 Bin, with a store capacity of 1,025 tons. It has a baghouse filter (CP-A3) connected as control device with 99.9% efficiency.
CP-A4	CP-A4	Cement Mill 11 with a production capacity of 88.2 ton/hr. It has a baghouse filter (CP-A4) connected as control device with 99.9% efficiency.
CP-A5	CP-A5	Cement Mill 11 Classifier, with a capacity of 86,000 ACFM at 250°F. It has a baghouse filter (CP-A5) connected as control device with 99.9% efficiency.
CP-A7	CP-A7	Cement Mill 12 Bin, with a store capacity of 1,025 tons. It has a baghouse filter (CP-A7) connected as control device with 99.9% efficiency.
CP-A8	CP-A8	Cement Mill 12 with a production capacity of 88.2 ton/hr. It has a baghouse filter (CP-A8) connected as control device with 99.9% efficiency.

Emission Units	Emission Points	Description			
CP-A9	CP-A9	Cement Mill 12 Classifier, with a capacity of 86,000 ACFM at 167°F. It has a baghouse filter (CP-A9) connected as control device with 99.9% efficiency.			
CP-F	Fugitive emissions	Cement plant with capacity to produce 520,000 tons of cement. This unit includes process and bins of coal, clay, gypsum and clinker. It has water sprays (CP-F) as control device with 80% efficiency.			

Lists of Process Equipment as emission units and Control Devices authorized in this Title V Permit are Annexed.

#### Section III – General Permit Conditions

- 1. Sanctions and Penalties: The permittee is obligated to comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Any violation of the terms of this permit will be subject to administrative, civil or criminal penalties as established in the Puerto Rico Environmental Public Policy Act, Article 17 (Public Law Number 416 of September 22, 2004, as amended).
- 2. **Right of Entry:** As specified under Rules 103 and 603(c)(2) of the RCAP, the permittee shall allow the EQB, through its authorized representatives, upon presentation of credentials and other documents as may be required by law, to perform the following activities:
  - a) Enter upon the permittee premises where an emission source is located or where emission related activities are conducted, or where records must be kept under the conditions of this permit, under the RCAP, or under the Clean Air Act;
  - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit, under the RCAP, or under the Clean Air Act;
  - c) Inspect and examine any facility, equipment (including monitoring and air pollution control equipment), practices or operations (including QA/QC methods) regulated or required under this permit; as well as sampling emission fuels;
  - d) As authorized by the Clean Air Act and the RCAP, to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements.
- **3.** Sworn Statement: As specified under Rule 103 (D) of the RCAP, all records and reports required shall be submitted together with a sworn statement or affidavit of the corporate President or of an equivalent responsible officer. Such sworn statement shall attest to the truth, correctness and completeness of such records and reports.
- **4. Data Availability:** As specified under Rule 104 of the RCAP, all emission data obtained by or submitted to the EQB, including data reported pursuant to Rule 103 of the RCAP, as well as that obtained in any other way, shall be available for public inspection and may also be made available to the public in any additional manner that the EQB may deem appropriate.

- **5.** Emergency Plan: As specified under Rule 107 of the RCAP, the permittee shall have an Emergency Plan which must be consistent with adequate safety practices, and provide for the reduction or retention of the emissions from the plant during periods classified by the EQB as alerts, warnings or emergencies. These plans shall identify the emission sources; include the reduction to be accomplished for each source and the means by which such reduction will be accomplished. These plans shall be available for inspection, as required by representatives of the EQB, at all times.
- **6. Control Equipment:** The permittee shall comply with Rule 108 of the RCAP, as follows:
  - (A) All air pollution control equipment or control measures shall provide for continuous compliance with applicable rules and regulations. Such equipment or measures shall be installed, maintained, and operated according to those conditions imposed by these permit, within the specified operating limitations of the manufacturer.
  - (B) The collected material from air pollution control equipment shall be disposed in accordance with applicable rules and regulations. The removal, manipulation, transportation, storage, treatment or disposal will be done in such or manner that shall not to produce environmental degradation, and in accordance with applicable rules and regulations.
  - (C) The Board may require, when deemed appropriate to safeguard the health and welfare of human beings, the installation and maintenance of additional, complete and separate air pollution control equipment of a capacity equal to the capacity of the primary control equipment. Furthermore, the Board may require that such additional air pollution control equipment be operated continuously and conjunctionally with the primary air pollution control equipment.
  - (D)All air pollution control equipment shall be operated at all times while the source being controlled is in operation.
  - (E) In the case of a shutdown of air pollution control equipment for the necessary scheduled maintenance, the intent to shutdown such equipment shall be reported to the Board at least three days prior to the planned shutdown. Such prior notice shall include, but is not limited to the following:
    - (1) Identification of the specific source to be taken out of service with its location and permit number.

- (2) The expected length of time that the air pollution control equipment will be out of service.
- (3) The nature and quantity of emissions of air pollutants likely to be permitted during the shutdown period.
- (4) Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period.
- (5) The reasons why it will be impossible or impractical to shutdown the operating source during the maintenance period.
- (F) The permittee shall to the extent possible, maintain and operate at all times, including periods of start-up, shutdown and malfunction, any affected source and the associated air pollution control equipment, in a manner consistent with the original manufacturers design specifications and in compliance with applicable rules and regulations and permit conditions.
- (G) The permittee shall maintain copies of all the monthly calibrations and inspections of the control equipments such as baghouses and scrubbers. The permittee shall record in a logbook all the periods when the control equipment is in shutdown and the process continues its operation. All the records shall be available to the EQB personnel.
- 7. <u>Certification of Compliance:</u> Pursuant to Rule 602(C)(2)(ix)(c) of the RCAP, the permit holder must submit, both to the EQB and the EPA<sup>2</sup> a certification of compliance no later than 90 days after the anniversary date of the permit. The Certification of Compliance must include the information required pursuant to Rule 603(c) of the RCAP.
- 8. **Regulation Compliance:** As specified under Rule 115 of the RCAP, any violation to the RCAP, or to any other applicable rule or regulation, shall be grounds for the Board to suspend, modify, or revoke any relevant permit, approval, variance or other authorization issued by the Board.

<sup>2</sup> The EQB certification shall be addressed to: Manager, Air Quality Area, Box 11488, Santurce, PR 00910. The EPA certification shall be addressed to: Chief, Permitting Section, Air Program Branch, EPA Region II, 290 Broadway, New York, NY, 10007.

- **9.** Location Approval: As specified under Rule 201 of the RCAP, nothing in this permit shall be interpreted as authorizing the location or construction of a major stationary source, or the modification of a major stationary source, or a major modification of a significant source, without obtaining first a location approval from the Board and without first demonstrating compliance with the National Ambient Air Quality Standards (NAAQS). This permit does not allow the construction of new minor sources without the required permit under Rule 203 of the RCAP.
- **10. Open Burning:** As specified under Rule 402 of the RCAP, Permittee shall not cause or permit the open burning of refuse in their premises except as established under Rule 402(E) of the RCAP to conduct training or research of fire fighting techniques. The Permittee shall:
  - a) Keep records of fire fighting activities related to research or training. These records shall be kept and shall be made available upon request, and
  - b) Submit yearly to the Board a schedule for fire fighting activities related to research or training and notify the Board seven days in advance of each fire fighting activity.
- **11. Particulate Fugitive Emissions**: As established in Rule 404 of the RCAP, the permittee shall not cause or permit:
  - a) Any materials to be handled, transported, or stored in a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished, without taking reasonable precautions to prevent particulate matter from becoming airborne.
  - b) The discharge of visible emissions of fugitive dust beyond the boundary line of the property on which the emissions originate.
- **12. Objectionable Odors:** As specified under Rule 420 of the RCAP, the permittee shall not cause or permit emissions to the atmosphere of any matter which produces an *objectionable* odor that can be perceived in an area other than that designated for industrial purposes. The permittee shall demonstrate compliance with Rule 420 (A)(1) as follows: if malodors are detectable beyond the permittee property perimeter, and complaints are received, the permittee shall investigate and take measures to minimize and/or eliminate the malodors, if necessary. [This condition is enforceable only by the State].

- **13. Permit Renewal Applications:** As established under Rule 602 (a)(1)(iv) of the RCAP, the permittee's applications for permit renewal shall be submitted at least 12 months prior to the date of permit expiration. A responsible official must certify all required applications consistent with paragraph (c)(3) of Rule 602.
- **14. Permit Duration:** As specified under Rule 603 of the RCAP, the following terms will apply during the duration of this permit:
  - a) Expiration: This authorization shall have a fixed term of 5 years. The expiration date will be automatically extended until the Board approves or denies a renewal application (Rule 605(c)(4)(ii) of the RCAP) but <u>only</u> in those cases where the permittee submits a complete renewal application at least 12 months before the expiration date. [Rules 603 (a)(2), 605 (c)(2), and 605(c)(4) of the RCAP]
  - b) Permit Shield: As specified under Rule 605 (c)(4)(i) of the RCAP, the permit shield may be extended until the time the permit is renewed if a timely and complete renewal application is submitted.
  - c) In case that this permit is subject to any challenge by third parties, the permit shall remain in effect until the time it is revoked by a court of law with jurisdiction in the matter.
- **15. Recordkeeping Requirement:** As established under Rule 603(a)(4)(ii) of the RCAP, the permittee shall retain records of all required monitoring data and support information for a period of 5 years from the date of the monitoring sample, measurement, report, or application.
- 16. Reporting Requirement: As established under Rule 603(a)(5)(i) of the RCAP, the permittee shall submit reports of all required monitoring every 6 months, or more frequently if required by the Board or any other underlying applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official as established under Rule 602(c)(3) of the RCAP.

- **17. Deviations Reporting due to Emergencies:** As specified under Rule 603(a)(5)(ii)(a) of the RCAP, any deviation resulting from an upset (such as sudden malfunction or breakdown) or emergency conditions, as defined in Rule 603(e) of the RCAP, must be reported within the next 2 working days. Such notification may be used to assert an affirmative defense upon an enforcement action against the permittee. If the permittee raises the emergency defense upon an enforcement action, the permittee shall demonstrate that such deviation happens due to an emergency and that the Board was adequately notified. Units affected to 40 CFR, Part 63, Subpart LLL (MACT for Portland Cement Manufacturing) and included in the Source's startup, shutdown, and malfunction plan have to comply with 40 CFR Section 63.6(e).
- **18. Deviation Reporting (Hazardous Air Pollutants):** The source (except units affected to MACT for Portland Cement Manufacturing and included in the Source's startup, shutdown, and malfunction plan which shall comply with 40 CFR Section 63.6(e)) shall shut down its operations immediately or shall act as specified in its Emergency Response Plan (established in Rule 107 (C) of the RCAP), when such Plan has demonstrated that there is no significant impact at the fence line. [This is a State only enforceable condition]. Pursuant to Rule 603 (a)(5)(ii)(b), a notification will be required if a deviation occurs that results in the release of emissions of hazardous air pollutants for more than an hour or any regulated air pollutant for more than 2 hours in excess of the applicable limit, the permittee shall notify the Board within 24 hours of the deviation. The Permittee shall also submit to the Board, within seven (7) days of the deviation, a detailed written report which includes probable causes, time and duration of the deviation, remedial action taken, and steps which are being taken to prevent a reoccurrence.
- **19. Severability Clause:** As established under Rule 603(a)(6) of the RCAP, the clauses in this permit are severable. In the event of a successful challenge to any portion of the permit in an administrative or judicial forum, or in the event any of its clauses is held to be invalid, all other portions of the permit shall remain valid and effective, including those related to emission limits, terms and conditions, be they specific or general, as well as monitoring, record keeping and reporting requirements.
- **20. Permit Noncompliance:** As established under Rule 603(a)(7)(i) of the RCAP, the permittee must comply with all conditions of this permit. Permit noncompliance constitutes a violation of the RCAP and will be grounds for taking the appropriate enforcement action, impose sanctions, revoke, terminate, modify, and/or reissue the permit, or to deny a permit renewal application.

- **21. Defense not Allowed:** As specified under Rule 603(a)(7)(ii) of the RCAP, it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- **22. Permit Modification and Revocation:** As specified under Rule 603(a)(7)(iii) of the RCAP, the permit may be modified, revoked, reopened, reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation, reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- **23. Property Rights:** As specified under Rule 603(a)(7)(iv) of the RCAP, this permit does not convey any property rights of any sort, nor does it grant any exclusive privilege.
- **24. Obligation to Furnish Information:** As specified under Rule 603(a)(7)(v) of the RCAP, the permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit.
- **25. Changes in Operating Scenarios:** As specified under Rule 603(a)(10) of the RCAP, the permittee shall record in a logbook, contemporaneously with making a change from one operating scenario to another, the scenario under which it is operating. This logbook must be kept at the permittees facility at all times.
- **26. Prohibition on Default Issuance:** As specified under Rule 605(d) of the RCAP, it shall never be considered that a permit has been issued by default as a result of the Board $\Box$ s failure to take final action on a permit application within 18 months as of the application completeness date. The Board's failure to issue a final permit within 18 months should be treated as a final action solely for the purpose of obtaining judicial review in a state court.
- **27. Administrative Permit Amendments and Permit Modifications:** As specified under Rule 606 of the RCAP, the permit shall not be amended nor modified unless the permittee complies with the requirements for administrative permit amendments and permit modifications as described in the RCAP.

- **28. Permit Reopening:** As specified under Rule 608(a)(1), this permit shall be reopened and revised under the following circumstances:
  - a) Whenever additional applicable requirements under any law or regulation become applicable to the permittee, when the remaining permit term is of 3 or more years. Such reopening shall be completed 18 months after promulgation of said applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to Rule 605(c)(4)(i) or Rule 605(c)(4)(i) of the RCAP.
  - b) Whenever the Board or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit.
  - c) Whenever the Board or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- **29. Changes in Name and/or Ownership**: This permit is issued to Cemex de Puerto Rico, Inc. In the event that the company and/or installation changes its name or is transferred to a different owner, the new responsible official must submit a sworn statement in which he/she accepts and promises to comply with all conditions of this permit.
- **30. Renovation/Demolition Work**: The permittee shall comply with the provisions set forth in 40 CFR Section 61.145 and Section 61.150, and Rule 422 of the RCAP when conducting any renovation or demolition of any asbestos containing material activities at the facility.
- **31. Risk Management Plan:** If during the effectiveness of this permit, the permittee is subject to the 40 CFR Part 68, he/she shall submit a Risk Management Plan according with the compliance schedule in the 40 CFR Part 68.10. As part of the annual compliance certification required under 40 CFR Part 70, the permittee shall submit a compliance certification with the requirements of Part 68, including the recordkeeping and the Risk Management Plan. The permittee shall comply with the general duty requirements of Section 112(r)(1) of the Act as follow:
  - a) Identify hazards, which may result from accidental releases using appropriate hazard assessment techniques.
  - b) Design, maintain, and operate a safe facility.
  - c) Minimize the consequences of accidental releases if they occur.

#### 32. Requirements for Refrigerants (Climatologic and Stratospheric Ozone Protection):

- a) In the event that the permittee has equipment or appliances, including air conditioning units, which use Class I or II refrigerants as defined in 40 CFR Part 82, Subpart A, Appendices A and B, the permittee shall take the necessary measures to ensure that all maintenance, service or repair services performed are done so according to the practices, certification and personnel requirements, disposition requirements, and recycling and/or recovery equipment certification requirements specified under 40 CFR Part 82, Subpart F.
- b) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to Section 82.166.
- c) Service on Motor Vehicles: If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term motor vehicle as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo or system used on passenger buses using HCFC-22 refrigerant.
- **33. Labeling of Products Using Ozone-Depleting Substances**: The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E.
  - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to Section 82.106.
  - b) The placement of the required warning statement must comply with the requirements pursuant to Section 82.108.
  - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to Section 82.110.
  - d) No person may modify, remove, or interfere with the required warning statement except as described in Section 82.112.

- **34. Emergency Generators**: In case during the duration of this permit you decide to install emergency generators as insignificant activities and after received the construction permit from the Board, shall comply with the following:
  - a) The operation for each emergency generator identified as insignificant activity is limited to 500 hours per year.
  - b) The permittee shall keep an annual record of the hours of operation and fuel consumption for each generator. It shall be kept available at any time for inspection by EQB and EPA personnel.
- **35. Roof Surface Coating**: This is a state-only requirement. The permittee shall not cause or permit the roof surface coating by applying hot tar or any other coating material containing organic compounds without previous notification to the Board. The use of used oil or hazardous waste for roof surface coating is prohibited.
- **36. Compliance Clause**: Under no circumstances does compliance with this permit exempt the permittee from complying with all other applicable state or federal laws, regulations, permits, administrative orders or applicable court orders.
- **37. Emissions Calculations**: The permittee shall submit, on the first day of April each year, the actual or permissible emissions calculations for the previous natural year. The emissions calculations shall be submitted on the forms prepared by the Board for this purpose and the responsible official must certify all the information submitted as true, correct and representative of the permitted activity. The permittee must make the applicable payment for the emissions calculations for the previous year on or before June 30 of each year.
- **38. Annual fee:** As specified under Rule 610 of the RCAP, the permittee must submit an annual payment based on the emissions calculations for each regulated pollutant. The payment will be based on their actual emissions at a rate of \$37.00 per ton, unless the Board decides otherwise as permitted under Rule 610(b)(2)(iv) of the RCAP. This payment for the previous year must be made on or before June 30 of each year.
- **39. Reservation of Rights:** Except as expressly provided in this Title V permit:
  - a) Nothing herein shall prevent EPA or the Board from taking administrative enforcement measures or seeking legal or equitable relief to enforce the terms of the Title V permit, including but not limited to the right to seek injunctive relief, and imposition of statutory penalties, fines and/or punitive damages.

- b) Nothing herein shall be construed to limit the rights of EPA or the Board to undertake any criminal enforcement activity against the permittee or any person.
- c) Nothing herein shall be construed to limit the authority of EPA or the Board to undertake any actions in response to conditions that present an imminent and substantial endangerment to public health or welfare, or the environment.
- d) Nothing herein shall be construed to limit the permittee's rights to administrative hearing and judicial appeal of termination/ revocation/ disputes over modification/ denial actions in accordance with regulations and the Environmental Public Policy Act.

# 40. Compliance with National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants:

All new and existing lime manufacturing plants that are major sources, co-located with major sources, or are part of major sources has to comply with the National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants described in 40 CFR Part 63, Subpart AAAAA. The source must comply with the compliance standards of this subpart no later than January 5, 2007; on less you could determine this application doesn't apply to your plant or CEMEX has a compliance extension with emission standards in 40 CFR Section 63.7100. CEMEX must complete all applicable requirements and performance test according to the provision in 40 CFR Sections 63.7(a)(2) and 63.7114.

#### Section IV – Requirements and Emission Caps

In this section there are the permit specific terms of the applicable requirements and the compliment methods for the Emission Units describe in Section I.

#### A. Facility Requirements

The "potential" emissions described below represent the emissions of the facility at the time of the permit application and will be used for payment purposes. According to Resolution R-97-47-1, emission calculations will be based in CEMEX actual emissions. When CEMEX applies for a modification, administrative change or a minor modification to the Title V permit, only will pay only those changes related with any emission increase (if any) per tonnage, based on the change and not based on the total fees paid previously. Those limits include PSD Permit and the Kiln 6 capacity increase authorization.

CRITERIA POLLUTANT	ALLOWABLE EMISSIONS (TONS /YEAR)
$PM_{10}$	1,148
$SO_2$	690
NO <sub>X</sub>	3,267
СО	1,107
Pb	0.44
HCl	30.33
As	8.05
Benzene	1.92
Naphthalene	1.05
Total HAP's	43.61

#### **B.** Fuel Consumption

- Maximum cements kiln's fuel oil usage will be 276,820 gallons per year and maximum coal usage will be 195,000 tons per year (PFE-03-58-1097-0079-I-II-C). For the lime plant, maximum kiln fuel oil usage will be 1,782,000 gallons per year and maximum coal usage will be 11,135 tons per year (PFE-58-0493-0540-I-II-O).
- 2. Maximum of sulfur content in cements kiln's fuel oil by weight will be 1.5% and in coal will be 1.0% (PFE-03-58-1097-0079-I-II-C). For the lime plant, maximum of sulfur content in the kiln fuel oil by weight will be 2.5% and in coal will be 1.8% (PFE-58-0493-0540-I-II-O).

- 3. CEMEX shall maintain a daily record for each kiln, including the following (PFE-03-58-1097-0079-I-II-O):
  - a. Fuel Oil type
  - b. Sulfur content
  - c. Fuel Oil usage quantity indicated in the 365-day rolling average of the continuous monitor
  - d. Any adjustment or maintenance realized to the equipment monitor system
  - e. Total coal fuel usage in the 365-day rolling average

#### C. Kiln's Operational Schedule

- 1. Kiln 6 is authorized to operate 8,760 hours in a year.
- 2. While CEMEX is operating Kiln 6, will not operate Kilns 4 and 5 (PFE-03-58-1097-0079-I-II-O).
- 3. Prior operates Kilns 4 and 5, CEMEX shall comply with the applicable requirements in the National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry (40 CFR, Part 63, Subpart LLL).
- 4. CEMEX shall maintain a daily record for each kiln, including the following (PFE-03-58-1097-0079-I-II-C):
  - a. Date and period of operation of each kiln.
  - b. Daily clinker production and updated in a 365-day rolling average.
  - c. Date and period in which each kiln was shutdown.
  - d. Gallons of fuel oil usage in a 365-day rolling average.
  - e. Tons of coal fuel usage in a 365-day rolling average.
- 5. To calculate particulate's monthly emissions, CEMEX must maintain a record of daily material processes.

#### Section V – Permit Terms

#### A. Compliance with Rule 404 of the RCAP

# 1. LP-FW, CP-F – Lime Plant Facility Wide Fugitive Emissions, Cement Plant Fugitive Emissions

- a. CEMEX shall use water or suitable chemicals for chemical stabilization and the control of dust in construction operations, quarrying operations, the grading of roads or the clearing of land.
- b. CEMEX shall apply asphalt, water, or suitable chemicals and use vegetation on dirty roads or roads under construction, materials, stockpiles, and other surfaces, which can give, rise to airborne.
- c. CEMEX shall cover, at all times when in motion, open bodied trucks transporting materials likely to give rise to airborne dusts.
- d. CEMEX shall pave roadways and maintain them in clean conditions.
- e. CEMEX shall remove promptly earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, by erosion by water, or by other means.
- f. When air pollutants escape from a building or equipment and cause a nuisance or violate any regulations, the Board may order that the building or equipment in which processing, handling, and storage are done, be tightly closed and/or ventilated so that all emissions from the building or equipment are controlled to remove or destroy such air pollutants before being discharged to the open air. The implementation of this measure should not create occupational health hazards.
- g. Every area, lot, or part of a piece of land intended for parking with a capacity greater than 900 square feet must be paved with concrete, asphalt, equivalent hard surface or chemical stabilization on all its access and internal roads where unpaved traffic adjoin paved roadways and parking areas.

#### **B.** Crushers equipment

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Opacity limit for crushers	Opacity	20	Percent	Method 9	Once during the first year of the permit	With each opacity reading.	Sixty days after each reading.
				Visible Inspection	Monthly	Record	With annual certification

#### 1. CP-6 – Old Hammer Mill

#### a. Opacity Limit

- (i) The permit holder shall not exceed the 20% opacity limit in a six-minute average. However, pursuant to Rule 403 (A) of the RCAP, it may discharge visible emissions of opacity of up to 60% for a period of no more than 4 minutes in any consecutive 30-minute interval.
- (ii) CEMEX shall hire an independent opacity reader, certified by an institution endorsed by the EPA to perform an opacity reading for mill's stack during the first year of the permit using Method 9 of 40 CFR part 60, Appendix A. The Method 9 inspection must determine average opacity in a total of 24 observations within a six-minute period. Hammer Mill must be in operation at the time of the opacity reading.
- (iii) A sampling protocol shall be submitted to the EQB at least thirty (30) days prior to the start of the test for approval. This protocol must include the information described in Rule 106(C) of the Regulations for the Control of Atmospheric Pollution (RCAP).
- (iv) At least fifteen (15) days prior written notification of any sampling shall be provided to the Board, to afford the EQB the opportunity to have an observer present. [Rule 106(D) of the RCAP]
- (v) Two copies of the results of the sampling report shall be submitted within sixty (60) days of the test. This report will include the information required by Rule 106(E) of the RCAP.
- (vi) CEMEX shall perform monthly a 1-minute visual opacity inspections

(Method 22 of 40 CFR Part 60, Appendix A) during the daytime using an Internal Visible Emissions Reader certified by a program endorsed by the EPA or the Board. If the reader determines that there are visible emissions, CEMEX shall take immediate corrective actions to eliminate the emissions and realized another visual inspection.

- (vii) If the second visual inspection indicates there are visible emissions, Cemex must realize a 6-minutes opacity inspection using Method 9 of 40 CFR Part 60, Appendix A. This opacity inspection has to be done within one hour since visual emissions had been seen.
- (viii) In compliance with Rule 603(A)(4)(ii) of the RCAP, CEMEX shall retain a copy of the visible emission readings report including the date and time of the readings, for a period of at least five years.
- (ix) <u>CEMEX shall record in a logbook all the visual opacity inspections and opacity results and must submit a summary of the logbook in the annual certification of compliance corresponding to the year in which the readings took place.</u>
- (x) The Board reserves the right to require additional visible emission readings in order to demonstrate compliance with the opacity limit.

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Opacity limit for crushers	Opacity	15	Percent	Method 9	Once during the first year of the permit	With each opacity reading.	Sixty days after each reading.
				Visible Inspection	Monthly	Record	With annual certification

### 2. CP-45 – Primary Crushing Plant

#### a. Opacity Limit

- (i) CEMEX shall not exhibit greater than 15% opacity from crusher CP-45, according to 40 CFR Section 60.672(c).
- (ii) CEMEX shall demonstrate compliance with the opacity limit through the results obtained in the initial performance test according to 40 CFR Section 60.8.

- (iii) CEMEX shall hire an independent opacity reader, certified by an institution endorsed by the EPA to perform an opacity reading for mill's stack during the first year of the permit using Method 9 of 40 CFR part 60, Appendix A. The Method 9 inspection must determine average opacity in a total of 24 observations within a six-minute period. Hammer Mill must be in operation at the time of the opacity reading.
- (iv) A sampling protocol shall be submitted to the EQB at least thirty (30) days prior to the start of the test for approval. This protocol must include the information described in Rule 106(C) of the Regulations for the Control of Atmospheric Pollution (RCAP).
- (v) At least fifteen (15) days prior written notification of any sampling shall be provided to the Board, to afford the EQB the opportunity to have an observer present. [Rule 106(D) of the RCAP]
- (vi) Two copies of the results of the sampling report shall be submitted within sixty (60) days of the test. This report will include the information required by Rule 106(E) of the RCAP.
- (vii) CEMEX shall perform monthly a 1-minute visual opacity inspections (Method 22 of 40 CFR Part 60, Appendix A) during the daytime using an Internal Visible Emissions Reader certified by a program endorsed by the EPA or the Board. If the reader determines that there are visible emissions, CEMEX shall take immediate corrective actions to eliminate the emissions and realized another visual inspection.
- (viii) If the second visual inspection indicates there are visible emissions, Cemex must realize a 6-minutes opacity inspection using Method 9 of 40 CFR Part 60, Appendix A. This opacity inspection has to be done within one hour since visual emissions had been seen.
- (ix) In compliance with Rule 603(A)(4)(ii) of the RCAP, CEMEX shall retain a copy of the visible emission readings report including the date and time of the readings, for a period of at least five years.
- (x) <u>CEMEX shall record in a logbook all the visual opacity inspections and opacity results and must submit a summary of the logbook in the annual certification of compliance corresponding to the year in which the readings took place.</u>
- (xi) The Board reserves the right to require additional visible emission

readings in order to demonstrate compliance with the opacity limit.

- C. Standards of Performance for Coal Preparation Plants (40 CFR, Part 60, Subpart Y)
  - 1. CP-36, CP-37 and CP-38– Coal Mill Feed Bin, Pulverized Coal Bin and Coal Mill

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Opacity Limit	Opacity	20	Percent	Method 9	Initial Performance test as required under 40 CFR Section 60.8	With each opacity reading.	Sixty days after each reading.
				Visible Inspection	Monthly	Daily	With annual certification

- a. Units CP-36, CP-37 and CP-37 are subject to the Standards of Performance for Coal Preparation Plants of 40 CFR Part 60, Subpart Y.
- b. CEMEX shall not exceed the opacity limit of 20% according to 40 CFR Section 60.252(a)(2).
- c. CEMEX shall demonstrate compliance with the opacity emission limit through the results obtained in the initial performance test according to 40 CFR Section 60.8.
- d. CEMEX shall hire an independent opacity reader, certified by an institution endorsed by the EPA to perform an opacity reading for mill's stack during the first year of the permit using Method 9 of 40 CFR part 60, Appendix A. The Method 9 inspection must determine average opacity in a total of 24 observations within a six-minute period. Hammer Mill must be in operation at the time of the opacity reading.
- e. A sampling protocol shall be submitted to the EQB at least thirty (30) days prior to the start of the test for approval. This protocol must include the information described in Rule 106(C) of the Regulations for the Control of Atmospheric Pollution (RCAP).

- f. At least fifteen (15) days prior written notification of any sampling shall be provided to the Board, to afford the EQB the opportunity to have an observer present. [Rule 106(D) of the RCAP]
- g. Two copies of the results of the sampling report shall be submitted within sixty (60) days of the test. This report will include the information required by Rule 106(E) of the RCAP.
- h. CEMEX shall perform monthly a 1-minute visual opacity inspections (Method 22 of 40 CFR Part 60, Appendix A) during the daytime using an Internal Visible Emissions Reader certified by a program endorsed by the EPA or the Board. If the reader determines that there are visible emissions, CEMEX shall take immediate corrective actions to eliminate the emissions and realized another visual inspection.
- i. If the second visual inspection indicates there are visible emissions, Cemex must realize a 6-minutes opacity inspection using Method 9 of 40 CFR Part 60, Appendix A. This opacity inspection has to be done within one hour since visual emissions had been seen.
- j. In compliance with Rule 603(A)(4)(ii) of the RCAP, CEMEX shall retain a copy of the visible emission readings report including the date and time of the readings, for a period of at least five years.
- k. <u>CEMEX shall record in a logbook all the visual opacity inspections and opacity results and must submit a summary of the logbook in the annual certification of compliance corresponding to the year in which the readings took place.</u>
- 1. The Board reserves the right to require additional visible emission readings in order to demonstrate compliance with the opacity limit.

#### **D.** Lime Manufacturing Plant operational limits

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Production limit	Lime annual production	39,600	Tons/yr	Record	Daily	Rolling record	Annual
SO <sub>2</sub> Emission Limit	Sulfur content	2.5 (liquid)	Percent by weight	Analysis by supplier	Every time fuel is received	Daily	Monthly
		1.8 (coal)	Percent by weight			Daily	Monthly
Visible emissions limit	Visible emissions	20	Six minute averaging percent	Method 9	Once during the first year of the permit	With each reading	Sixty days from the date of the reading.
				Visible emissions	Monthly	Records	Annually
Emission rate limit	PM	16	pounds/hr	Record	Continuous	Record	Semiannual
Emission limit for particulate matter	Particulate Matter	0.3	Pounds per million Btu	Method 5	Once during the first year of the permit	Records	Annually

#### 1. LP-1 – Kiln 7 (33MMBtu/hr)

#### a. Production limit

- (i) Maximum quicklime production is 39,600 tons per year. [PFE-58-0493-0540-I-II-O]
- (ii) Maintain a rolling daily production and submit a summary report in the annual certification.

#### b. Sulfur Limit

(i) CEMEX shall not burn or permit the use of fuels with a sulfur content exceeding 1.8% by weight for coal and 2.5% by weight for liquid fuel. [PFE-58-0493-0540-I-II-O]

- (ii) CEMEX shall keep a copy of the fuel supplier certification indicating the fuel sulfur content to demonstrate compliance with the requirement of keeping a daily record of the sulfur content in the diesel. CEMEX shall obtain an analysis of the sulfur content with each receipt of fuel using Method ASTM 4294 or ASTM 2880-71.
- (iii) As specified under Rule 603(a)(4)(ii) of the RCAP, CEMEX shall keep all records of required monitoring data and supporting information for a period of 5 years from the date of the monitoring sample, measurement, report or application. This includes a record with the results of the fuel performance test, a record of monthly fuel consumption and sulfur content of consumed fuels and the results and methodology of flow meter calibrations for any combustion unit.
- (iv)As specified under Rule 410(F) of the RCAP, CEMEX shall submit, within the first 15 days of the month following the one being reported, a monthly report indicating the daily fuel consumption and the sulfur content by weight, for the fuel consumed. This report shall be addressed to the chief of the Validations and Data Management Division and shall be kept available at any time at the facility for EQB and EPA revision.

#### c. Opacity limit

- (i) The permit holder shall not exceed the 20% opacity limit in a six-minute average. However, pursuant to Rule 403 (A) of the RCAP, it may discharge visible emissions of opacity of up to 60% for a period of no more than 4 minutes in any consecutive 30-minute interval.
- (ii) CEMEX shall hire an independent opacity reader, certified by an institution endorsed by the EPA to perform an opacity reading for mill's stack during the first year of the permit using Method 9 of 40 CFR part 60, Appendix A. The Method 9 inspection must determine average opacity in a total of 24 observations within a six-minute period. Hammer Mill must be in operation at the time of the opacity reading.
- (iii) A sampling protocol shall be submitted to the EQB at least thirty (30) days prior to the start of the test for approval. This protocol must include the information described in Rule 106(C) of the Regulations for the Control of Atmospheric Pollution (RCAP).

- (iv) At least fifteen (15) days prior written notification of any sampling shall be provided to the Board, to afford the EQB the opportunity to have an observer present. [Rule 106(D) of the RCAP]
- (v) Two copies of the results of the sampling report shall be submitted within sixty (60) days of the test. This report will include the information required by Rule 106(E) of the RCAP.
- (vi) CEMEX shall perform weekly visual opacity inspections during the daytime using an Internal Visible Emissions Reader certified by a program endorsed by the EPA or the Board. If the reader determines that there are visible emissions, CEMEX shall take immediate corrective actions to eliminate the emissions.
- (vii) In compliance with Rule 603(A)(4)(ii) of the RCAP, CEMEX shall retain a copy of the visible emission readings report including the date and time of the readings, for a period of at least five years.
- (viii) CEMEX must submit a summary of the visible emissions reports in the annual certification of compliance corresponding to the year in which the readings took place.
- (ix) The Board reserves the right to require additional visible emission readings in order to demonstrate compliance with the opacity limit.

#### d. Particulate Matter Limit Emission

- (i) CEMEX shall not cause discharge the emission, from any fuel (solid or liquid) burning equipment, of particulate matter into the atmosphere in excess of 0.3 lb/MMBtu of heat input. [Rule 406 of the RCAP].
- (ii) CEMEX shall realize a test to demonstrate compliance with the standard a test at least 180 days prior to the permit first anniversary using Method 5 of the 40 CFR, Part 60, Appendix A. [Rule 602(C)(2)(ix)(c) of the RCAP]
- (iii) CEMEX must submit to the Board at least 30 days prior to the start of the test, a detailed test protocol. [Rule 106(C) of the RCAP]
- (iv)CEMEX shall provide the Board al least 15 days of prior written notification of any test, to afford the EQB the opportunity to have an observer present. [Rule 106(D) of the RCAP]

(v) CEMEX shall submit to the Board within 60 days after the performance of the emission test, a copy of the emission test results [Rule 106(E) of the RCAP] and shall included it in the annual compliance certification.

#### e. Process Weight Rate

- (i) This unit will process a maximum of 20,000 pounds per hour of material. The process weight per hour will be derived by dividing the process weight for a typical period of time.
- (ii) Solid fuels charged will be considered as part of the process weight. [Rule 407(C) of the RCAP]

#### 2. LP-2 – Lime Hydrator

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Visible emissions limit	Visible emissions	20	Six minute averaging percent	Method 9	Once during the first year of the permit	With each reading	Sixty days from the date of the reading.
				Visible emissions	Monthly	Records	With annual certification

#### a. Opacity Limit

- (i) The permit holder shall not exceed the 20% opacity limit in a six-minute average. However, pursuant to Rule 403 (A) of the RCAP, it may discharge visible emissions of opacity of up to 60% for a period of no more than 4 minutes in any consecutive 30-minute interval.
- (ii) CEMEX shall hire an independent opacity reader, certified by an institution endorsed by the EPA to perform an opacity reading for mill's stack during the first year of the permit using Method 9 of 40 CFR part 60, Appendix A. The Method 9 inspection must determine average opacity in a total of 24 observations within a six-minute period. Hammer Mill must be in operation at the time of the opacity reading.

- (iii) A sampling protocol shall be submitted to the EQB at least thirty (30) days prior to the start of the test for approval. This protocol must include the information described in Rule 106(C) of the Regulations for the Control of Atmospheric Pollution (RCAP).
- (iv) At least fifteen (15) days prior written notification of any sampling shall be provided to the Board, to afford the EQB the opportunity to have an observer present. [Rule 106(D) of the RCAP]
- (v) Two copies of the results of the sampling report shall be submitted within sixty (60) days of the test. This report will include the information required by Rule 106(E) of the RCAP.
- (vi) CEMEX shall perform monthly a 1-minute visual opacity inspections (Method 22 of 40 CFR Part 60, Appendix A) during the daytime using an Internal Visible Emissions Reader certified by a program endorsed by the EPA or the Board. If the reader determines that there are visible emissions, CEMEX shall take immediate corrective actions to eliminate the emissions and realized another visual inspection.
- (vii) If the second visual inspection indicates there are visible emissions, Cemex must realize a 6-minutes opacity inspection using Method 9 of 40 CFR Part 60, Appendix A. This opacity inspection has to be done within one hour since visual emissions had been seen.
- (viii) In compliance with Rule 603(A)(4)(ii) of the RCAP, CEMEX shall retain a copy of the visible emission readings report including the date and time of the readings, for a period of at least five years.
- (ix) <u>CEMEX shall record in a logbook all the visual opacity inspections and opacity results and must submit a summary of the logbook in the annual certification of compliance corresponding to the year in which the readings took place.</u>
- (x) The Board reserves the right to require additional visible emission readings in order to demonstrate compliance with the opacity limit.

#### 3. LP-10 – Mill 15

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Visible emissions limit	Visible emissions	20	Six minute averaging percent	Method 9	Once during the first year of the permit	With each reading	Sixty days from the date of the reading.
				Visible emissions	Monthly	Records	Annually

#### a. Opacity Limit

- (i) The permit holder shall not exceed the 20% opacity limit in a six-minute average. However, pursuant to Rule 403 (A) of the RCAP, it may discharge visible emissions of opacity of up to 60% for a period of no more than 4 minutes in any consecutive 30-minute interval.
- (ii) CEMEX shall hire an independent opacity reader, certified by an institution endorsed by the EPA to perform an opacity reading for mill's stack during the first year of the permit using Method 9 of 40 CFR part 60, Appendix A. The Method 9 inspection must determine average opacity in a total of 24 observations within a six-minute period. Hammer Mill must be in operation at the time of the opacity reading.
- (iii) A sampling protocol shall be submitted to the EQB at least thirty (30) days prior to the start of the test for approval. This protocol must include the information described in Rule 106(C) of the Regulations for the Control of Atmospheric Pollution (RCAP).
- (iv) At least fifteen (15) days prior written notification of any sampling shall be provided to the Board, to afford the EQB the opportunity to have an observer present. [Rule 106(D) of the RCAP]
- (v) Two copies of the results of the sampling report shall be submitted within sixty (60) days of the test. This report will include the information required by Rule 106(E) of the RCAP.

- (vi) CEMEX shall perform weekly visual opacity inspections during the daytime using an Internal Visible Emissions Reader certified by a program endorsed by the EPA or the Board. If the reader determines that there are visible emissions, CEMEX shall take immediate corrective actions to eliminate the emissions.
- (vii) In compliance with Rule 603(A)(4)(ii) of the RCAP, CEMEX shall retain a copy of the visible emission readings report including the date and time of the readings, for a period of at least five years.
- (viii) CEMEX must submit a summary of the visible emissions reports in the annual certification of compliance corresponding to the year in which the readings took place.
- (ix) The Board reserves the right to require additional visible emission readings in order to demonstrate compliance with the opacity limit.

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Visible emissions limit	Visible emissions	20	Six minute averaging percent	Method 9	Once during the first year of the permit	With each reading	Sixty days from the date of the reading.
				Visible emissions	Monthly	Records	Annually

4. LP-15a, 15b, 15c – Silo 14, Silo 15 and Silo 16

#### a. Opacity Limit

- (i) The permit holder shall not exceed the 20% opacity limit in a six-minute average. However, pursuant to Rule 403 (A) of the RCAP, it may discharge visible emissions of opacity of up to 60% for a period of no more than 4 minutes in any consecutive 30-minute interval.
- (ii) CEMEX shall hire an independent opacity reader, certified by an institution endorsed by the EPA to perform an opacity reading for mill's stack during the first year of the permit using Method 9 of 40 CFR part 60, Appendix A. The Method 9 inspection must determine average opacity in a total of 24 observations within a six-minute period. Hammer Mill must be in operation at the time of the opacity reading.

- (iii) A sampling protocol shall be submitted to the EQB at least thirty (30) days prior to the start of the test for approval. This protocol must include the information described in Rule 106(C) of the Regulations for the Control of Atmospheric Pollution (RCAP).
- (iv) At least fifteen (15) days prior written notification of any sampling shall be provided to the Board, to afford the EQB the opportunity to have an observer present. [Rule 106(D) of the RCAP]
- (v) Two copies of the results of the sampling report shall be submitted within sixty (60) days of the test. This report will include the information required by Rule 106(E) of the RCAP.
- (vi) CEMEX shall perform weekly visual opacity inspections during the daytime using an Internal Visible Emissions Reader certified by a program endorsed by the EPA or the Board. If the reader determines that there are visible emissions, CEMEX shall take immediate corrective actions to eliminate the emissions.
- (vii) In compliance with Rule 603(A)(4)(ii) of the RCAP, CEMEX shall retain a copy of the visible emission readings report including the date and time of the readings, for a period of at least five years.
- (viii) CEMEX must submit a summary of the visible emissions reports in the annual certification of compliance corresponding to the year in which the readings took place.
- (ix) The Board reserves the right to require additional visible emission readings in order to demonstrate compliance with the opacity limit.

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Visible emissions limit	Visible emissions	20	Six minute averaging percent	Method 9	Once during the first year of the permit	With each reading	Sixty days from the date of the reading.
				Visible emissions	Monthly	Records	Annually

#### 5. LP-18a, 18b, 18c, 18d, 18e - Silo 1, Silo 2, Silo 3, Silo 10 and Silo 11

#### a. Opacity Limit

- (i) The permit holder shall not exceed the 20% opacity limit in a six-minute average. However, pursuant to Rule 403 (A) of the RCAP, it may discharge visible emissions of opacity of up to 60% for a period of no more than 4 minutes in any consecutive 30-minute interval.
- (ii) CEMEX shall hire an independent opacity reader, certified by an institution endorsed by the EPA to perform an opacity reading for mill's stack during the first year of the permit using Method 9 of 40 CFR part 60, Appendix A. The Method 9 inspection must determine average opacity in a total of 24 observations within a six-minute period. Hammer Mill must be in operation at the time of the opacity reading.
- (iii) A sampling protocol shall be submitted to the EQB at least thirty (30) days prior to the start of the test for approval. This protocol must include the information described in Rule 106(C) of the Regulations for the Control of Atmospheric Pollution (RCAP).
- (iv) At least fifteen (15) days prior written notification of any sampling shall be provided to the Board, to afford the EQB the opportunity to have an observer present. [Rule 106(D) of the RCAP]
- (v) Two copies of the results of the sampling report shall be submitted within sixty (60) days of the test. This report will include the information required by Rule 106(E) of the RCAP.
- (vi) CEMEX shall perform weekly visual opacity inspections during the daytime using an Internal Visible Emissions Reader certified by a program endorsed by the EPA or the Board. If the reader determines that there are visible emissions, CEMEX shall take immediate corrective actions to eliminate the emissions.
- (vii) In compliance with Rule 603(A)(4)(ii) of the RCAP, CEMEX shall retain a copy of the visible emission readings report including the date and time of the readings, for a period of at least five years.
- (viii) CEMEX must submit a summary of the visible emissions reports in the annual certification of compliance corresponding to the year in which the readings took place.

(ix) The Board reserves the right to require additional visible emission readings in order to demonstrate compliance with the opacity limit.

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Visible emissions limit	Visible emissions	20	Six minute averaging percent	Method 9	Once during the first year of the permit	With each reading	Sixty days from the date of the reading.
				Visible emissions	Monthly	Records	With annual certification

#### 6. LP-19 – Pile of Crushed Limestone

#### a. Opacity Limit

- (i) The permit holder shall not exceed the 20% opacity limit in a six-minute average. However, pursuant to Rule 403 (A) of the RCAP, it may discharge visible emissions of opacity of up to 60% for a period of no more than 4 minutes in any consecutive 30-minute interval.
- (ii) CEMEX shall hire an independent opacity reader, certified by an institution endorsed by the EPA to perform an opacity reading for mill's stack during the first year of the permit using Method 9 of 40 CFR part 60, Appendix A. The Method 9 inspection must determine average opacity in a total of 24 observations within a six-minute period. Hammer Mill must be in operation at the time of the opacity reading.
- (iii) A sampling protocol shall be submitted to the EQB at least thirty (30) days prior to the start of the test for approval. This protocol must include the information described in Rule 106(C) of the Regulations for the Control of Atmospheric Pollution (RCAP).
- (iv) At least fifteen (15) days prior written notification of any sampling shall be provided to the Board, to afford the EQB the opportunity to have an observer present. [Rule 106(D) of the RCAP]
- (v) Two copies of the results of the sampling report shall be submitted within sixty (60) days of the test. This report will include the information required by Rule 106(E) of the RCAP.

- (vi) CEMEX shall perform monthly a 1-minute visual opacity inspections (Method 22 of 40 CFR Part 60, Appendix A) during the daytime using an Internal Visible Emissions Reader certified by a program endorsed by the EPA or the Board. If the reader determines that there are visible emissions, CEMEX shall take immediate corrective actions to eliminate the emissions and realized another visual inspection.
- (vii) If the second visual inspection indicates there are visible emissions, Cemex must realize a 6-minutes opacity inspection using Method 9 of 40 CFR Part 60, Appendix A. This opacity inspection has to be done within one hour since visual emissions had been seen.
- (viii) In compliance with Rule 603(A)(4)(ii) of the RCAP, CEMEX shall retain a copy of the visible emission readings report including the date and time of the readings, for a period of at least five years.
- (ix) <u>CEMEX shall record in a logbook all the visual opacity inspections and</u> <u>opacity results and must submit a summary of the logbook in the annual</u> <u>certification of compliance corresponding to the year in which the</u> <u>readings took place</u>.
- (x) The Board reserves the right to require additional visible emission readings in order to demonstrate compliance with the opacity limit.

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Visible emissions limit	Visible emissions	20	Six minute averaging percent	Method 9	Once during the first year of the permit	With each reading	Sixty days from the date of the reading.
				Visible emissions	Monthly	Records	Annually

#### 7. LP-21a, 21b, 21c – Silo 7, Silo 8 and Silo 9

#### a. Opacity Limit

(i) The permit holder shall not exceed the 20% opacity limit in a six-minute average. However, pursuant to Rule 403 (A) of the RCAP, it may discharge visible emissions of opacity of up to 60% for a period of no more than 4 minutes in any consecutive 30-minute interval.

- (ii) CEMEX shall hire an independent opacity reader, certified by an institution endorsed by the EPA to perform an opacity reading for mill's stack during the first year of the permit using Method 9 of 40 CFR part 60, Appendix A. The Method 9 inspection must determine average opacity in a total of 24 observations within a six-minute period. Hammer Mill must be in operation at the time of the opacity reading.
- (iii) A sampling protocol shall be submitted to the EQB at least thirty (30) days prior to the start of the test for approval. This protocol must include the information described in Rule 106(C) of the Regulations for the Control of Atmospheric Pollution (RCAP).
- (iv) At least fifteen (15) days prior written notification of any sampling shall be provided to the Board, to afford the EQB the opportunity to have an observer present. [Rule 106(D) of the RCAP]
- (v) Two copies of the results of the sampling report shall be submitted within sixty (60) days of the test. This report will include the information required by Rule 106(E) of the RCAP.
- (vi) CEMEX shall perform weekly visual opacity inspections during the daytime using an Internal Visible Emissions Reader certified by a program endorsed by the EPA or the Board. If the reader determines that there are visible emissions, CEMEX shall take immediate corrective actions to eliminate the emissions.
- (vii) In compliance with Rule 603(A)(4)(ii) of the RCAP, CEMEX shall retain a copy of the visible emission readings report including the date and time of the readings, for a period of at least five years.
- (viii) CEMEX must submit a summary of the visible emissions reports in the annual certification of compliance corresponding to the year in which the readings took place.
- (ix) The Board reserves the right to require additional visible emission readings in order to demonstrate compliance with the opacity limit.

#### E. Cement Manufacturing Plant operational limits

#### 1. PSD permit compliance

- a. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this PSD Permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions.
- b. The continuous emission monitoring systems required by this permit shall be on-line and in operation 95% of the time when kiln is operating.
- c. Maximum daily clinker production from kiln 6 is 4,100 tons per 24 hour block average period and 1,238,100 tons of clinker per 365 days block average period.
- d. The permittee may request an increase in the clinker production limits provided if can demonstrate that the emission factor for  $NO_X$  is lower than 5.17 lbs of  $NO_X$  per ton of clinker. In addition, when using a revised emission factor, the netting calculation for  $NO_X$  shall not exceed the PSD de minimis value for  $NO_X$ .
- e. CEMEX shall use the Best Available Control Technology (BACT) to control kiln's emissions:
  - (i) Carbon Monoxide (CO)
    - a) CEMEX shall employ combustion controls to reduce CO emissions by increasing the oxidation of CO to  $CO_2$  by: improving contact with oxygen, which can be accomplished by improved mixing and/or increased exceed air; and increasing the time/temperature relationship.
    - b) Emissions of CO shall not exceed, during any 8-hour average basis, 1.74 lbs/ton of clinker, 381 ppm corrected to 7% oxygen, and 296.6 lbs/hr, whichever is more stringent.
  - (ii) Volatile Organic Compounds (VOCs)
    - a) CEMEX shall employ combustion controls to reduce VOC emissions by increasing the oxidation of VOC to CO<sub>2</sub> by: improving contact with oxygen, which can be accomplished by improved mixing and/or increased excess air; and increasing the time/temperature relationship.

- b) Emissions of VOC shall not exceed, during any 24-hour average basis, 0.12 lb/ton of clinker and 20.5 lb/hr, whichever is more stringent.
- f. CEMEX shall install, calibrate, maintain, and operate the following continuous monitoring systems (CEMs):
  - (i) CEM to measure stack gas volumetric flow rates
  - (ii) CEM to measure CO y oxygen
  - (iii) These systems, at minimum, shall meet EPA NSPS monitoring performance specifications.
- g. Startup and shutdown for Kiln 6 shall be defined as:
  - (i) Cold Startup: period beginning with the initial firing of oil in the kiln for preheating and ending eight hours after raw meal and coal are fed to the calciner. The duration of the startup shall not exceed 36 consecutive hours for any clod startup exclusive of brick curing.
  - (ii) Hot Startup: period beginning with the resumption of raw meal and coal being fed to the calciner. The duration of the hot startup shall not exceed 8 consecutive hours for any hot startup.
  - (iii) Partial Shutdown: period beginning with the stopping of a raw feed and coal to the calciner and ending at the time when coal to the kiln is resumed to start a "hot startup". The duration of this shutdown shall not exceed 24 consecutive hours of any shutdown.
  - (iv)Total Shutdown: period between stopping of raw feed and coal to the calciner and coal to the kiln and ending with the initial firing of oil in the kiln for preheating during a "Cold Startup".

#### 2. CP-1 – Kiln 6

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Sulfur limit	SO <sub>2</sub>	1.5 (No. 6)	Percent by weight	Record of fuel supplier certificate	With each fuel receipt	Daily	Monthly
		1.0 (Coal)	Percent by weight			Daily	Monthly
Particulate Matter Limit Emission	Particulate matter	0.3	Pounds per millions of BTU	Method 5	Within the permit first year	Logbook	Sixty days after test.

#### a. Sulfur Limit

- (i) CEMEX shall not burn or permit the use of fuels with a sulfur content exceeding 1.0% by weight for coal and 1.5% by weight for No. 6 Fuel Oil. [PFE-03-58-1097-0079-I-II-C]
- (ii) CEMEX shall keep a copy of the fuel supplier certification indicating the fuel sulfur content to demonstrate compliance with the requirement of keeping a daily record of the sulfur content in the diesel. CEMEX shall obtain an analysis of the sulfur content with each receipt of fuel using Method ASTM 4294 or ASTM 2880-71.
- (iii) As specified under Rule 603(a)(4)(ii) of the RCAP, CEMEX shall keep all records of required monitoring data and supporting information for a period of 5 years from the date of the monitoring sample, measurement, report or application. This includes a record with the results of the fuel performance test, a record of monthly fuel consumption and sulfur content of consumed fuels and the results and methodology of flow meter calibrations for any combustion unit.
- (iv)As specified under Rule 410(F) of the RCAP, CEMEX shall submit, within the first 15 days of the month following the one being reported, a monthly report indicating the daily fuel consumption and the sulfur content by weight, for the fuel consumed. This report shall be addressed to the chief of the Validations and Data Management Division and shall be kept available at any time at the facility for EQB and EPA revision.

#### b. Process Weight Rate

(i) Solid fuels charged will be considered as part of the process weight. [Rule 407(C) of the RCAP]

#### c. Particulate Matter Limit Emission

- (i) CEMEX shall not cause discharge the emission, from any fuel (solid or liquid) burning equipment, of particulate matter into the atmosphere in excess of 0.3 lb/MMBtu of heat input. [Rule 406 of the RCAP].
- (ii) CEMEX shall realized test at least 180 days prior to the permit anniversary to demonstrate compliance with the standard using Method 5 of the 40 CFR, Part 60, Appendix A. [Rule 602(C)(2)(ix)(c) of the RCAP]
- (iii) CEMEX must submit to the Board at least 30 days prior to the start of the test, a detailed test protocol. [Rule 106(C) of the RCAP]
- (iv)CEMEX shall provide the Board al least 15 days of prior written notification of any test, to afford the EQB the opportunity to have an observer present. [Rule 106(D) of the RCAP]
- (v) CEMEX shall submit to the Board within 60 days after the performance of the emission test, a copy of the emission test results [Rule 106(E) of the RCAP] and shall included it in the annual compliance certification.

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Sulfur limit	SO <sub>2</sub>	1.5 (No. 6)	Percent by weight	Record of fuel supplier certificate	With each fuel receipt	Daily	Monthly
		1.0 (Coal)	Percent by weight			Daily	Monthly
Particulate Matter Limit Emission	Particulate matter	0.3	Pounds per millions of BTU	Method 5	Within the permit first year	Test results	Sixty days after test.

## 3. CP-2, CP-3 – Kiln 5 and Kiln 4

#### a. Sulfur Limit

- (i) CEMEX shall not burn or permit the use of fuels with a sulfur content exceeding 1.0% by weight for coal and 1.5% by weight for No. 6 Fuel Oil. [PFE-03-58-1097-0079-I-II-C]
- (ii) CEMEX shall keep a copy of the fuel supplier certification indicating the fuel sulfur content to demonstrate compliance with the requirement of keeping a daily record of the sulfur content in the diesel. CEMEX shall obtain an analysis of the sulfur content with each receipt of fuel using Method ASTM 4294 or ASTM 2880-71.
- (iii) As specified under Rule 603(a)(4)(ii) of the RCAP, CEMEX shall keep all records of required monitoring data and supporting information for a period of 5 years from the date of the monitoring sample, measurement, report or application. This includes a record with the results of the fuel performance test, a record of monthly fuel consumption and sulfur content of consumed fuels and the results and methodology of flow meter calibrations for any combustion unit.
- (iv)As specified under Rule 410(F) of the RCAP, CEMEX shall submit, within the first 15 days of the month following the one being reported, a monthly report indicating the daily fuel consumption and the sulfur content by weight, for the fuel consumed. This report shall be addressed to the chief of the Validations and Data Management Division and shall be kept available at any time at the facility for EQB and EPA revision.

#### **b.** Process Weight Rate

(i) Solid fuels charged will be considered as part of the process weight. [Rule 407(C) of the RCAP]

#### c. Particulate Matter Limit Emission

- (i) CEMEX shall not cause discharge the emission, from any fuel (solid or liquid) burning equipment, of particulate matter into the atmosphere in excess of 0.3 lb/MMBtu of heat input. [Rule 406 of the RCAP].
- (ii) CEMEX shall realized test at least 180 days prior to the permit anniversary to demonstrate compliance with the standard using Method 5 of the 40 CFR, Part 60, Appendix A. [Rule 602(C)(2)(ix)(c) of the RCAP]

- (iii) CEMEX must submit to the Board at least 30 days prior to the start of the test, a detailed test protocol. [Rule 106(C) of the RCAP]
- (iv)CEMEX shall provide the Board al least 15 days of prior written notification of any test, to afford the EQB the opportunity to have an observer present. [Rule 106(D) of the RCAP]
- (v) CEMEX shall submit to the Board within 60 days after the performance of the emission test, a copy of the emission test results [Rule 106(E) of the RCAP] and shall included it in the annual compliance certification.

4.	<b>CP-25</b> –	Startup	Boilers
----	----------------	---------	---------

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Fuel Consumption	No. 6	14,570	Gallons/yr	Consumption record	Continuous	Daily rolling record	Semiannual
Sulfur limit	$SO_2$	1.5	Percent by weight	Record of fuel supplier certificate	With each fuel receipt	Daily	Monthly
Opacity Limit	Opacity	20	Percent	Method 9	Once a year	With each opacity reading.	Sixty days after each reading.
				Visible Inspection	Monthly	Records	With annual certification
Particulate Matter Limit Emission	Particulate matter	0.3	Pounds per millions of BTU	Method 5	Within the permit first year	Logbook	Sixty days after test.

#### a. Fuel Consumption

(i) Maximum No.6 Fuel Oil or kerosene usage will be 14,570 gallons per year, for any 365-day rolling average. (PFE-03-58-1097-0079-I-II-C)

#### b. Sulfur Limit

- (i) CEMEX shall not burn fuel with a sulfur content exceeding 1.5% by weight. [PFE-03-58-1097-1079-I-II-C]
- (ii) CEMEX shall keep a copy of the fuel supplier certification indicating the fuel sulfur content to demonstrate compliance with the requirement of

keeping a daily record of the sulfur content in the diesel. CEMEX shall obtain an analysis of the sulfur content with each receipt of fuel using Method ASTM 4294 or ASTM 2880-71.

- (iii) As specified under Rule 603(a)(4)(ii) of the RCAP, CEMEX shall keep all records of required monitoring data and supporting information for a period of 5 years from the date of the monitoring sample, measurement, report or application. This includes a record with the results of the fuel performance test, a record of monthly fuel consumption and sulfur content of consumed fuels and the results and methodology of flow meter calibrations for any combustion unit.
- (iv)As specified under Rule 410(F) of the RCAP, CEMEX shall submit, within the first 15 days of the month following the one being reported, a monthly report indicating the daily fuel consumption and the sulfur content by weight, for the fuel consumed. This report shall be addressed to the chief of the Validations and Data Management Division and shall be kept available at any time at the facility for EQB and EPA revision.

#### c. Opacity Limit

- (i) The permit holder shall not exceed the 20% opacity limit in a six-minute average. However, pursuant to Rule 403 (A) of the RCAP, it may discharge visible emissions of opacity of up to 60% for a period of no more than 4 minutes in any consecutive 30-minute interval.
- (ii) CEMEX shall hire an independent opacity reader, certified by an institution endorsed by the EPA to perform an opacity reading for mill's stack during the first year of the permit using Method 9 of 40 CFR part 60, Appendix A. The Method 9 inspection must determine average opacity in a total of 24 observations within a six-minute period. Hammer Mill must be in operation at the time of the opacity reading.
- (iii) A sampling protocol shall be submitted to the EQB at least thirty (30) days prior to the start of the test for approval. This protocol must include the information described in Rule 106(C) of the Regulations for the Control of Atmospheric Pollution (RCAP).
- (iv) At least fifteen (15) days prior written notification of any sampling shall be provided to the Board, to afford the EQB the opportunity to have an observer present. [Rule 106(D) of the RCAP]
- (v) Two copies of the results of the sampling report shall be submitted within

sixty (60) days of the test. This report will include the information required by Rule 106(E) of the RCAP.

- (vi) CEMEX shall perform monthly a 1-minute visual opacity inspections (Method 22 of 40 CFR Part 60, Appendix A) during the daytime using an Internal Visible Emissions Reader certified by a program endorsed by the EPA or the Board. If the reader determines that there are visible emissions, CEMEX shall take immediate corrective actions to eliminate the emissions and realized another visual inspection.
- (vii) If the second visual inspection indicates there are visible emissions, Cemex must realize a 6-minutes opacity inspection using Method 9 of 40 CFR Part 60, Appendix A. This opacity inspection has to be done within one hour since visual emissions had been seen.
- (viii) In compliance with Rule 603(A)(4)(ii) of the RCAP, CEMEX shall retain a copy of the visible emission readings report including the date and time of the readings, for a period of at least five years.
- (ix) <u>CEMEX shall record in a logbook all the visual opacity inspections and opacity results and must submit a summary of the logbook in the annual certification of compliance corresponding to the year in which the readings took place.</u>
- (x) The Board reserves the right to require additional visible emission readings in order to demonstrate compliance with the opacity limit.

#### d. Particulate Matter Limit Emission

- (i) CEMEX shall not cause discharge the emission, from any fuel (solid or liquid) burning equipment, of particulate matter into the atmosphere in excess of 0.3 lb/MMBtu of heat input. [Rule 406 of the RCAP].
- (ii) CEMEX shall realized test at least 180 days prior to the permit anniversary to demonstrate compliance with the standard using Method 5 of the 40 CFR, Part 60, Appendix A. [Rule 602(C)(2)(ix)(c) of the RCAP]
- (iii) CEMEX must submit to the Board at least 30 days prior to the start of the test, a detailed test protocol. [Rule 106(C) of the RCAP]

- (iv)CEMEX shall provide the Board al least 15 days of prior written notification of any test, to afford the EQB the opportunity to have an observer present. [Rule 106(D) of the RCAP]
- (v) CEMEX shall submit to the Board within 60 days after the performance of the emission test, a copy of the emission test results [Rule 106(E) of the RCAP] and shall included it in the annual compliance certification.

#### 5. CP-A3, A4, A5 – Mill 11 Bin, Mill 11 y Mill 11 Classifier

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Production limit	РМ	88.2	tons/hr	Recordkeeping	Daily	Daily	Semiannual

#### a. Production Limit

- (i) <u>Maximum cement material process in mill CP-A4 will be 88.2 tons per hour. [PFE-58-0293-0168-I-C]</u>
- (ii) CEMEX must maintain a record of daily material processes and shall include a summary of it in the annual compliance certification.

#### 6. CP-A7, A8, A9 – Mill 12 Bin, Mill 12 y Mill 12 Classifier

Condition	Parameter	Value	Units	Test Method	Frequency of the Method	Recordkeeping Requirements	Reporting Frequency
Production limit	РМ	88.2	tons/hr	Recordkeeping	Daily	Daily	Semiannual

#### a. Production Limit

- (i) <u>Maximum cement material process in Mill CP-A8 will be 88.2 tons per hour. [PFE-58-0293-0168-I-C]</u>
- (ii) CEMEX must maintain a record of daily material processes and shall include a summary of it in the annual compliance certification.

#### F. Alternate Operational Scenarios

Implementation of the following alternates operational scenarios are authorized without revision of this permit. Each alternate scenario had to be previous authorized in a construction permit pursuant to Rule 203 of the RCAP.

#### 1. Alternate Fuels

- **a. Used oil:** CEMEX could burns used oil in Kiln 6 operations subject to compliance with the following statements:
  - (i) Rule 410 del RCAP,
  - (ii) Used oil had been characterized and catalogued as non-hazardous waste, and
  - (iii) Lab's test prove fuel comply with each of the following specifications:

Parameter	Permit Limit
Arsenic	Maximum of 5 ppm by weight
Cadmium	Maximum of 2 ppm by weight
Chromium	Maximum of 10 ppm by weight
Lead	Maximum of 100 ppm by weight
Flash point	Minimum of 100°F
Total Halogens	Less than 1,000 ppm by weight
PCB's	Less than 50 ppm

- **b.** Another fuels: to burns any other fuel CEMEX must comply with:
  - (i) <u>Cemex must realize a Prevention of Significant Deterioration (PSD)</u> applicability determination and submit it to the Board. If PSD applies, <u>Cemex has to have an EPA's Permit of Significant Deterioration.</u>
  - (ii) Rules 201 y 202 of the RCAP (if applied),
  - (iii) Rule 406 of the RCAP,
  - (iv)Rule 410 of the RCAP, and
  - (v) Modify or revise the corresponding construction permit.

#### Section VI – Compliance with the National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry (40 CFR, Part 63, Subpart LLL)

#### A. General Conditions

- 1. CEMEX shall comply with all the applicable requirement of 40 CFR, part 63, subpart LLL: National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry since June 14, 2002, according to 40 CFR Section 63.1351(a).
- 2. CEMEX shall comply with all applicable general provisions of the 40 CFR, Part 63, Subpart A provided in Table 1 of this subpart, according to 40 CFR Section 63.1342(a).

#### **B.** Specific Conditions

- 1. Emission Limits for the in-line kiln 6 (CP-1) / raw mill
  - a. According with 40 CFR Section 63.1343(b), CEMEX shall not cause to be discharged into the atmosphere from the in-line kiln (CP-1)/raw mills, any gases which:
    - (i) Contain particulate matter (PM) in excess of 0.15 kg per Mg (0.30 lb per ton) of feed (dry basis) to the kiln. When there is an alkali bypass associated with the in-line kiln (CP-1) / raw mill, the combined particulate matter emissions from the in-line kiln/raw mill and the alkali bypass are subject to this emission limit.
    - (ii) Exhibit opacity greater than 20%, and
    - (iii) Contain D/F in excess of 0.20 ng per dscm  $(8.7 \times 10^{-11} \text{ gr per dscf})$  (TEQ<sup>3</sup>) corrected to 7% oxygen; or 0.40 ng per dscm  $(1.7 \times 10^{-10} \text{ gr per dscf})$  (TEQ) corrected to 7% oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204°C (400°F) or less.

<sup>&</sup>lt;sup>3</sup> TEQ means the international method of expressing toxicity equivalents for dioxins and furans as defined in U.S. EPA, *Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-pdioxins and dibenzofurans.* 

- 2. Operational Limits for the in-line kiln (CP-1) / raw mill
  - a. If CEMEX is subjected to a D/F emission limitation under 40 CFR Section 63.1343(b)(3) or Condition B(1)(a)(iii) of this section, CEMEX must operate must operate the kiln (CP-1) such that the temperature of the gas at the inlet to the kiln (CP-1) particulate matter control device (PMCD) and alkali bypass PMCD, if applicable, does not exceed the applicable temperature limit specified in 40 CFR Section 63.1344(b).
  - b. The owner or operator of an in-line kiln/raw mill subject to a D/F emission limitation under 40 CFR Section 63.1343(b)(3) or Condition B(1)(a)(iii) of this section must operate the in-line kiln (CP-1) / raw mill, such that:
    - (i) When the raw mill of the in-line kiln / raw mill is operating or not operating, the applicable temperature limit for the main in-line kiln (CP-1) / raw mill exhaust, specified in 40 CFR Section 63.1344(b) and established during the performance test when the raw mill was operating is not exceeded.
    - (ii) If the in-line kiln/raw mill is equipped with an alkali bypass, the applicable temperature limit for the alkali bypass, specified in Section 63.1344(b) of the CFR and established during the performance test when the raw mill was operating, is not exceeded.
    - (iii) The temperature limit is determined in accordance with 40 CFR Section 63.1349(b)(3)(iv).
- 3. Standards for Clinker Cooler (CP-22)
  - a. According to 40 CFR Section 63.1345(a), CEMEX shall not cause to be discharged into the atmosphere from the clinker cooler any gases which:
    - (i) Contain particulate matter in excess of 0.050 kg per Mg (0.10 lb per ton) of feed (dry basis) to the kiln, and
    - (ii) Exhibit opacity greater than 10%

- b. CEMEX shall comply with the emission limit (20% opacity) applicable to the kiln (CP-1) if the clinker cooler (CP-22) emissions are routed through kiln (CP-1) as part of the manufacturing process. CEMEX shall comply with the more restrictive limit (10% opacity) if the emissions of kiln (CP-1) are combined with clinker cooler (CP-22) emissions prior to discharge to the atmosphere.
- 4. Standards for raw and finish mill (CP-A4) and (CP-A8)
  - a. According to 40 CFR Section 63.1347, CEMEX shall not cause to be discharged from the mill sweep or air separator air pollution control devices of the raw<sup>4</sup> or finish mill (CP-A4) and (CP-A8) any gases which exhibit opacity in excess of 10% percent.
- 5. Standards for other affected sources (new or existing raw material, clinker, or finished product storage bin, conveying system transfer point, bagging system, and bulk loading or unloading system and each existing raw material dryer) CP-2, CP-3, CP-20, CP-21, CP-36, CP-37, CP-38, CP-A3, CP-A5, CP-A7, CP-A9.
  - a. According to 40 CFR Section 63.1348, CEMEX shall not cause to be discharged any gases which exhibit opacity in excess of 10% percent from the new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system; and each existing raw material dryer.

#### C. Performance Test Requirement

- 1. CEMEX shall demonstrate initial compliance with the emission limits of 40 CFR Section 63.1343 and Sections 63.1345 through 63.1348 using the test methods and procedures in 40 CFR Section 63.1349(b) and Section 63.7, according to 40 CFR Section 63.1349(a).
- 2. CEMEX shall submit to EQB and EPA a detailed test protocol at least 60 days prior to the start of the test.
- 3. Performance test results shall be documented in complete test reports that contain the information required in 40 CFR Section 63.1349 paragraphs (a)(1) through (a)(10).

<sup>&</sup>lt;sup>4</sup> This mill is not part of the in-line kiln/raw mill. See the definition of raw mill in Section 63.1341.

Cemex de Puerto Rico, Page 52

- 4. According to 40 CFR Section 63.1349(c), performance tests required under 40 CFR Section 63.1349(b)(1) and (b)(2) shall be repeated every five years, except that the owner or operator of a kiln, in-line kiln/raw mill or clinker cooler is not required to repeat the initial performance test of opacity for these sources as provided in 40 CFR Section 63.1349(e).
- 5. The performance tests required under 40 CFR Section 63.1349(b)(3) shall be repeated every 30 months, according to 40 CFR Section 63.1349(d).
- 6. According to 40 CFR Section 63.1349(e)(1), if CEMEX plans to undertake a change in operations that may adversely affect compliance with an applicable D/F standard under this subpart, CEMEX must conduct a performance test and establish new temperature limit(s) as specified in 40 CFR Section 63.1349(b)(3).
- 7. According to 40 CFR Section 63.1349(e)(2), if CEMEX plans to undertake a change in operations that may adversely affect compliance with an applicable PM standard under 40 CFR Section 63.1343, CEMEX must conduct a performance test and establish new temperature limit(s) as specified in 40 CFR Section 63.1349(b)(1).
- 8. According to 40 CFR Section 63.1349(e)(3), CEMEX may operate under the planned operational change conditions for a period not to exceed 360 hours in preparation for and while conducting a performance test required in 40 CFR Section 63.1319(e)(1).
- 9. CEMEX shall submit temperature and other monitoring data that are recorded during the pretest operations. Also CEMEX shall comply with conditions established in paragraphs (e)(3)(i) through (iv) of 40 CFR Section 63.1349.

## **D.** Monitoring Requirements<sup>5</sup>

- 1. CEMEX shall prepare for each affected source a written operations and maintenance plan, according to 40 CFR Section 63.1350(a). The plan is part of the application of this Title V permit. The plan shall include the information required in 40 CFR Section 6.1350(a)(1) through (a)(4):
  - a. The procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emission limits and operating limits of 40 CFR Sections 63.1343 through 63.1348.

<sup>&</sup>lt;sup>5</sup>Table 1 from Section 63.1350 from 40 CFR provides a summary of the monitoring requirements.

- b. Corrective actions to be taken when required by 40 CFR Section 63.1350(e).
- c. The procedures to be used during an inspection of the components of the combustion system of each kiln and each in-line kiln raw mill located at the facility at least once per year.
- d. The procedures to be used to periodically monitor affected sources subject to opacity standards under 40 CFR Sections 63.1346 and 63.1348. Such procedures must include the provisions in 40 CFR Section 63.1350(a)(4)(i) through (a)(4)(iv).
- e. The requirements of applicability of Method 22 for the partially and totally enclosed conveying system transfer points shall be determined in accordance with paragraphs (a)(4)(v) through (vii) of 40 CFR Section 63.1350.
- 2. According to 40 CFR Section 63.1350(b), failure to comply with any provision of the operations and maintenance plan developed as provided with 40 CFR Section 63.1350(a) and Condition D(1) shall be a violation of the standard.
- 3. According to 40 CFR Section 63.1350(c), CEMEX shall monitor opacity at each point where emissions are vented from the kiln (CP-1) / raw mill including alkali bypasses (if applicable) as provided with 40 CFR Section 63.1350(c)(1) through (c)(3) as follows:
  - a. CEMEX shall install, calibrate, maintain, and continuously operate a continuous opacity monitor (COM) located at the outlet of the PM control device to continuously monitor the opacity. The COM shall be installed, maintained, calibrated, and operated as required by general provisions of the 40 CFR part 63, subpart A and according to PS-1 of appendix B of the 40 CFR part 60.
  - b. CEMEX may monitor opacity in accordance with 40 CFR Section 63.1350(c)(2)(i) through (ii) in lieu of installing the continuous opacity monitoring system required by 40 CFR Section 63.1350(c)(1), if using a fabric filter with multiple stacks or an electrostatic precipitator with multiple stacks. CEMEX must monitor opacity in accordance with 40 CFR Section 63.1350(c)(2)(i) through (ii) as follows, if the control device exhausts through a monovent, or if the use of a COM in accordance with the installation specifications of PS-1 of appendix B of 40 CFR part 60 is not feasible:

- (i) Perform daily visual opacity observations of each stack in accordance with the procedures of Method 9 of appendix A of part 60 of this chapter. The Method 9 test shall be conducted while the affected source is operating at the highest load or capacity level reasonably expected to occur within the day. The duration of the Method 9 test shall be at least 30 minutes each day.
- (ii) Use the Method 9 procedures to monitor and record the average opacity for each 6-minute period during the test.
- c. To remain in compliance, the opacity must be maintained such that the 6minute average opacity for any 6-minute block period does not exceed 20%. If the average opacity for any 6-minute block period exceeds 20%, this shall constitute a violation of the standard.
- 4. According to 40 CFR Section 63.1350(d), CEMEX shall monitor opacity at each point where emissions are vented from the clinker cooler (CP-22) as required in 40 CFR Section 63.1350(d)(1) through (d)(3).
- 5. According to 40 CFR Section 63.1350(e), CEMEX shall monitor opacity by conducting daily visual emissions observations of the mill sweep and air separator PMCDs of the raw (CP-A4) and finish mills (CP-A8), in accordance with the procedures of Method 22 of appendix A to part 60 of 40 CFR. The Method 22 test shall be conducted while the affected source is operating at the highest load or capacity level reasonably expected to occur within the day. The duration of the Method 22 test shall be six minutes. If visible emissions are observed during any Method 22 visible emissions test, CEMEX must:
  - a. Initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan developed in accordance with 40 CFR Section 63.1350(a)(1) and (a)(2); and Condition D(1) of this section; and
  - b. Within 24 hours of the end of the Method 22 test in which visible emissions were observed, conduct a follow-up Method 22 test of each stack from which visible emissions were observed during the previous Method 22 test. If visible emissions are observed during the follow-up Method 22 test from any stack from which visible emissions were observed during the previous Method 22 test, conduct a visual opacity test of each stack from which emissions were observed during the follow up Method 22 test in accordance with Method 9 of appendix A to part 60 of 40 CFR. The duration of the Method 9 test shall be 30 minutes.

- 6. CEMEX shall monitor D/F emissions in accordance with 40 CFR Section 63.1350(f)(1) through (f)(6) as follows:
  - a. Shall install, calibrate, maintain, and continuously operate a continuous monitor to record the temperature of the exhaust gases from the in-line kiln (CP-1) / raw mill and alkali bypass, if applicable, at the inlet to, or upstream of the PM control devices.
    - (i) The recorder response range must include zero and 1.5 times either of the average temperatures established according to the requirements in 40 CFR Section 63.1349(b)(3)(iv).
    - (ii) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by EPA.
  - b. CEMEX shall monitor and continuously record the temperature of the exhaust gases from the in-line kiln (CP-1) / raw mill and alkali bypass, if applicable, at the inlet to the PMCD.
  - c. CEMEX shall calculate the three-hour rolling average temperature as the average of 180 successive one-minute average temperatures.
  - d. Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute average is added to the previous 179 values to calculate the three-hour rolling average.
  - e. When the operating status of the raw mill of the in-line kiln / raw mill is changed from off to on, or from on to off the calculation of the three-hour rolling average temperature must begin anew, without considering previous recordings.
  - f. The calibration of all thermocouples and other temperature sensors shall be verified at least once every 3 months.
- The owner or operator of any kiln or in-line kiln/raw mill subject to a D/F emission limit shall conduct an inspection of the components of the combustion system of each in-line kiln (CP-1) / raw mill at least once per year, according to 40 CFR Section 63.1350(i).
- 8. According to 40 CFR Section 63.1350(j), the owner or operator of an affected source subject to a limitation on opacity under 40 CFR Section 63.1346 or Section 63.1348

shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with 40 CFR Section 63.1350(a) or Condition D(1) of this section.

- 9. The owner or operator of an affected source subject to a particulate matter standard under 40 CFR Section 63.1343 shall install, calibrate, maintain, and operate a particulate matter continuous emission monitoring system (PM CEMS) to measure the particulate matter discharged to the atmosphere, as provided in 40 CFR Section 63.1350(k). All requirements relating to installation, calibration, maintenance, operation or performance of the PM CEMS and implementation of the PM CEMS requirement are deferred pending further rulemaking.
- 10. CEMEX may submit an application to EPA for approval of alternate monitoring requirements to demonstrate compliance with the emission standards of subpart LLL, subject to the provisions in 40 CFR Section 63.1350(1)(1) through (1)(6).
- 11. CEMEX shall comply with 40 CFR Section 63.1350(m) paragraphs (1) through (9), if a bag leak detection system (BLDS) is used in lieu of conducting the visual emissions testing required in 40 CFR Section 63.1350(e).

#### **E.** Notifications Requirements

- 1. CEMEX shall comply with all notification requirements in 40 CFR Section 63.9, according to 40 CFR Section 63.1353. CEMEX shall comply with these requirements as follows:
  - a. Initial notifications as required by 40 CFR Section 63.9(b) through (d).
  - b. Notification of performance tests, as required by 40 CFR Section 63.7 and 63.9(e).
  - c. Notification of opacity and visible emission observations required by 40 CFR Section 63.1349 in accordance with 40 CFR Sections 63.6(h)(5) and 63.9(f).
  - d. Notification, as required by 40 CFR Section 63.9(g), of the date that the continuous emission monitor performance evaluation required by 40 CFR Section 63.8(e) is scheduled to begin.
  - e. Notification of compliance status, as required by 40 CFR Section 63.9 (h).

#### F. Reporting Requirements (40 CFR Section 63.1354)

- 1. CEMEX source shall comply with the reporting requirements specified in 40 CFR Section 63.10 of the general provisions of this part 63, subpart A as follows:
  - a. CEMEX shall report the results of performance tests as part of the notification of compliance status as required by 40 CFR Section 63.10(d)(2).
  - b. CEMEX shall report the opacity results from tests required by 40 CFR Section 63.1349, as required by 40 CFR Section 63.10(d)(3).
  - c. CEMEX is required to submit progress reports as a condition of receiving an extension of compliance under 40 CFR Section 63.6(i) shall submit such reports by the dates specified in the written extension of compliance, as required by 40 CFR Section 63.10(d)(4).
  - d. As required by 40 CFR Section 63.10(d)(5), if actions taken by CEMEX during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan specified in 40 CFR Section 63.6(e)(3), CEMEX shall state such information in a semiannual report. Reports shall only be required if a startup, shutdown, and malfunction occurred during the reporting period. The startup, shutdown, and malfunction report may be submitted simultaneously with the excess emissions and continuous monitoring system performance reports.
  - e. Any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan; CEMEX shall make an immediate report of the actions taken for that event within 2 working days, by telephone call or facsimile (FAX) transmission. The immediate report shall be followed by a letter, certified by the owner or operator or other responsible official, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.
  - f. As required by 40 CFR Section 63.10(e)(2), CEMEX submit a written report of the results of the performance evaluation for the continuous monitoring system required by 40 CFR Section 63.8(e). CEMEX shall submit the report simultaneously with the results of the performance tests.
  - g. As required by 40 CFR Section 63.10(e)(2), the owner or operator of an affected source using a continuous opacity monitoring system to determine opacity compliance during any performance test required under Section 63.7

of the CFR and described in 40 CFR Section 63.6(d)(6) shall report the results of the continuous opacity monitoring system performance evaluation conducted under 40 CFR Section 63.8(e).

- h. As required by 40 CFR Section 63.10(e)(3), the owner or operator of an affected source equipped with a continuous emission monitor shall submit an excess emission and continuous monitoring system performance report for any event when the continuous monitoring system data indicate the source is not in compliance with the applicable emission limitation or operating parameter limit.
- i. CEMEX shall submit a summary report semiannually, which contains the information specified in 40 CFR Section 63.10(e)(3)(vi). In addition, the summary report shall include:
  - (i) All exceedances of maximum control device inlet gas temperature limits specified in 40 CFR Sections 63.1344(a) and (b);
  - (ii) All failures to calibrate thermocouples and other temperature sensors as required under 40 CFR Section 63.1350(f)(7);
  - (iii) The results of any combustion system component inspections conducted within the reporting period as required under 40 CFR Section 63.1350(i); and
  - (iv)All failures to comply with any provision of the operation and maintenance plan developed in accordance with 40 CFR Section 63.1350(a).
- j. CEMEX shall submit an excess emissions and continuous monitoring system performance report along with the summary report if the total continuous monitoring system downtime for any CEM or any continuous monitoring system for the reporting period is 10% or greater of the total operating time for the reporting period.

#### G. Recordkeeping requirements (40 CFR Section 63.1355)

- 1. CEMEX shall maintain files of all information (including all reports and notifications) required by 40 CFR Section 63.1355 recorded in a form suitable and readily available for inspection and review as required by 40 CFR Section 63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.
- 2. CEMEX shall maintain records for each affected source as required by 40 CFR Sections 63.10(b)(2) and (b)(3); and the following information:
  - a. All documentation supporting initial notifications and notifications of compliance status under 40 CFR Section 63.9;
  - b. All records of applicability determination, including supporting analyses; and
  - c. Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements, if the owner or operator has been granted a waiver under 40 CFR Section 63.8(f)(6).
- 3. The owner or operator of an affected source equipped with a continuous monitoring system shall maintain all records required by 40 CFR Section 63.10(c).

#### H. NSPS Exceptions (40 CFR Section 63.1356)

1. According to 40 CFR Section 63.1356(a), any affected source subject to the provisions of this subpart is exempt from any otherwise applicable new source performance standard contained in Subpart F or Subpart OOO of 40 CFR Part 60.

## Section VII – Insignificant Emission Units

The following activities will be considered insignificant as long as the permittee complies with the descriptions indicated below.

## A. Lime Plant

Emission Unit ID	Description
Jaw Crusher (LP-3) connected to a baghouse as control device	Emit less than 2 ton per year of PM or less than 1 ton per year of $PM_{10}$ (Appendix B, Subpart 3, ii, P).
Lime Mill 1 and 2 (LP-4, 5) each one connected to a baghouse	Appendix B, Subpart 3, ii, P
Packing machines (LP-6, 7) each one connected to a baghouse	Appendix B, Subpart 3, ii, P
Lime or clinker Mills 13 and 14 (LP-8, 9)	Appendix B, Subpart 3, ii, P
Lime Silos 11, 12, 13 and 19a-b (LP-12, 13, 14, 11a-b) each one connected to a baghouse	Appendix B, Subpart 3, ii, P
Lime Silos 4, 5 and 6 (LP-17a-c) each one connected to a baghouse	Appendix B, Subpart 3, ii, P
Raymond Mill (LP-16) connected to a baghouse	Appendix B, Subpart 3, ii, P
Lime truck loading spout (LP-20) connected to a baghouse	Appendix B, Subpart 3, ii, P
No. 4 Fuel Oil Tank with a 126,000 gallons capacity	Emit less than 1 ton per year of VOC (Appendix B, Subpart 3, ii, P)

## **B.** Cement Plant

Emission Unit ID	Description
Cement Mills 1-5 (CP-4) y 6-10 (CP-5) connected to common dust collectors and room cleaning fabric filter	Emit less than 2 ton per year of PM or less than 1 ton per year of $PM_{10}$ (Appendix B, Subpart 3, ii, P).
Cement Mills 1-10 (Cp-7 to 16) connected to fabric filters	Appendix B, Subpart 3, ii, P
Kiln 5 clinker cooler apron conveyor (CP-23) connected to fabric filter	Appendix B, Subpart 3, ii, P
Clinker reclaiming vents and fans (CP-26 to 28) connected to fabric filters	Appendix B, Subpart 3, ii, P
Group 1 (CP-29), 2 (CP-30) and 3 (CP-31) cement silos connected to fabric filters	Appendix B, Subpart 3, ii, P
Packinghouse (CP-32 to 34) connected to fabric filters	Appendix B, Subpart 3, ii, P
Cement transport via four pumps (CP-35) to the barge pier connected to fabric filter	Appendix B, Subpart 3, ii, P
Coal silo conveyor belt (CP-39) connected to fabric filter	Appendix B, Subpart 3, ii, P
Tripper clinker conveyor (CP-41) connected to fabric filter	Appendix B, Subpart 3, ii, P
Kiln precipitator bins (CP-42 and 43)	Appendix B, Subpart 3, ii, P
Bulk cement silos 6-12 (CP-47 to 49) connected to fabric filters	Appendix B, Subpart 3, ii, P
Ultravac, packinghouse and mill department vacuum cleaners (CP-46 and CP-50 to 52)	Appendix B, Subpart 3, ii, P
Gypsum bin (CP-A1) and gypsum/clinker belt (CP-A2) connected to fabric filter	Appendix B, Subpart 3, ii, P

Emission Unit ID	Description
Nuisance fabric filter (CP-A6)	Appendix B, Subpart 3, ii, P
Bag dust collectors (fabric filter) 1 (CP- B), 2A (CP-C), 3 (CP-D), 4 (CP-E), 5 (CP-F). 6 (CP-G) y 8 (CP-I)	Appendix B, Subpart 3, ii, P
No. 3 Fuel Oil Tank with a 440,000 gallons capacity	Emit less than 1 ton per year of VOC (Appendix B, Subpart 3, ii, P)
No. 4 Fuel Oil Tank with a 126,000 gallons capacity	Appendix B, Subpart 3, ii, P
No. 1 Fuel Oil Tank with a 46,500 gallons capacity	Appendix B, Subpart 3, ii, P

## Section VIII – Permit Shield

A. As specified under Rule 603(D) of the RCAP, compliance with the conditions of the permit shall be deemed compliance with any applicable requirement as of the date of permit issuance, but only if such applicable requirement is included and specifically identified in the permit. Moreover, CEMEX shall be deemed in compliance with any permit conceded by the Board.

#### Section IX – Permit Approval

By virtue of the authority conferred upon the Environmental Quality Board by the Public Policy Environmental Act, Public Law Number 416 of September 22, 2004, as amended, and after verifying the administrative record and compliance with the Uniform Administrative Procedure Act, Law No. 170, August 12, 1988, as amended, the Clean Air Act, the Public Policy Environmental Act and the Regulation for the Control of Atmospheric Pollution, the Environmental Quality Board approves this permit subject to all the terms and conditions herein established.

In San Juan, Puerto Rico, today December 4, 2007.

#### **ENVIRONMENTAL QUALITY BOARD**

Eugene Scott Amy Vice-president Julio I. Rodríguez Colón Alternate Member

Carlos W. López Freytes President

Cemex de Puerto Rico, Page 64

# **APPENDIXES**

Cemex de Puerto Rico, Page 65

#### **APPENDIX I**

#### **Appendix I - Definitions and Abbreviations**

#### A. Definitions:

- 1. Act Clean Air Act, as amended, 42 U.S. 7401, et seq.
- 2. Responsible Official- see definition of responsible official, as established in the EQB Regulation for the Control of Atmospheric Pollution, (1995).
- 3. Regulations Regulations for the Control of Atmospheric Pollution of the Environmental Quality Board.
- 4. Permittee person or establishment to whom EQB has issued an operating permit for an emission source covered by Title V.
- 5. Title V Title V of the Federal Clean Air Act (42 U.S.C. 7661).

#### **B.** Abbreviations

- 1. Btu British thermal unit
- 2. CO Carbon Monoxide
- 3. CFR Code of Federal Regulations
- 4. EPA Environmental Protection Agency
- 5. EQB Environmental Quality Board
- 6. HAP's Hazardous Atmospheric Pollutants
- 7. Mg Milligrams
- 8. MACT Maximum Achievable Control Technology
- 9. NAAQS National Ambient Air Quality Standards

- 10. NESHAP National Emission Standards for Hazardous Air Pollutants
- 11.  $NO_X$  Nitrogen oxides
- 12. NSPS New Source Performance Standards
- 13. PSD Prevention of Significant Deterioration
- 14.  $PM_{10}$  Particulate matter with a size less than or equal to 10 micrometers in aerodynamic mass median diameter
- 15. RCAP Regulation for the Control of Atmospheric Pollution of the Environmental Quality Board
- 16. SIC Sloterd Industrial Classification
- 17.  $SO_2$  Sulfur dioxide
- 18. VOC Volatile Organic Compounds

#### C. Notification Addresses

**Compliance Notifications and Permit Modifications** 

Environmental Quality Board Air Quality Program PO Box 11488 Santurce, PR 00910

# ANNEXED

Cemex de Puerto Rico, Page 68

# ANNEXED I – CONTROL DEVICE EQUIPMENTS

## A. Lime Plant

EMISSION UNITS	CONTROL DEVICE	EQUIPMENT DESCRIPTION	
LP-1	LP-1	Fuller Plenum Pulse Baghouse Collector	
LP-2	LP-2	Norblo Model N500 Polysphore Scrubber	
LP-19	LP-19 WS	Water Spray	
LP-FW	LP-FW	Water Spray	

## **B.** Cement Plant

EMISSION UNITS	CONTROL DEVICE	EQUIPMENT DESCRIPTION	
CP-1	CP-1	Electrostatic Precipitator (two stage)	
CP-2	CP-2	Electrostatic Precipitator (two stage)	
CP-3	CP-3	Electrostatic Precipitator (two stage)	
CP-6	CP-6	Baghouse Filter	
CP-20	CP-20	Baghouse Filter	
CP-21	CP-21	Baghouse Filter	
CP-22	CP-22	Baghouse Filter	
CP-36	CP-36	Baghouse Filter	
CP-37	CP-37	Baghouse Filter	
CP-38	CP-38	Baghouse Filter	
CP-45	CP-45	Baghouse Filter	

EMISSION UNITS	CONTROL DEVICE	EQUIPMENT DESCRIPTION
CP-A3	CP-A3	Baghouse Filter
CP-A4	CP-A4	Baghouse Filter
CP-A5	CP-A5	Baghouse Filter
CP-A7	CP-A7	Baghouse Filter
CP-A8	CP-A8	Baghouse Filter
CP-A9	CP-A9	Baghouse Filter
CP-F	CP-F	Water Spray

# ANNEXED II – PROCESS EQUIPMENT

# 1. Combustion equipment

## a) Unit CP-25

COMBUSTION UNIT	CAPACITY	DESCRIPTION
Boiler 1	3.35 MM Btu/hr	Burns Fuel Oil No. 6 at a rate of 22.3 gallons per hour
Boiler 2	3.35 MM Btu/hr	Burns Fuel Oil No. 6 at a rate of 22.3 gallons per hour
Boiler 3	3.35 MM Btu/hr	Burns Fuel Oil No. 6 at a rate of 22.3 gallons per hour