



UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

August 9, 2010

Mr. Ramiro G. Villarreal Morales  
General Counsel  
CEMEX, S.A.B de C.V.  
Av. Ricardo Margáin Zozaya #325  
Colonia Valle del Campestre  
Garza García, Nuevo León  
México 66265

**Re: Form 20-F for Fiscal Year Ended December 31, 2009**  
**Filed June 30, 2010**  
**File No. 001-14946**

Dear Mr. Villarreal:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Health and Safety, page 39

1. We note your statement regarding the critical importance your company places on the health and safety of your employees. In an appropriate section of your future filings, please include a discussion of your safety performance referencing your safety programs and statistical measures your organization utilizes to monitor performance, such as occupational fatality and injury frequency rates. Please expand your discussion related to safety and health to include these occupational injury frequency rates and other appropriate statistics, such as number of man-hours worked, number of reportable injuries, lost time injuries and fatalities preferably grouped by your business units. Your performance can be illustrated by a comparison of the respective national rates to your corporate or divisional rates.

Description of Properties, Plants, and Equipment, page 48

2. In future filings please include the appropriate Industry Guide 7 disclosure for your mining and processing properties. Please segregate and group your facilities by salable product and/or source material such as sand & gravel, clay, crushed rock, limestone, etc. and with the large number of facilities, you may wish to aggregate or group them based on your business units, geographic location, region, country or continent. In the event you believe Industry Guide 7 does not apply, please provide us supplementally a materiality assessment comparing a valuation of your total assets as compared to your mining and related processing assets. Vertically integrated businesses, such as your cement facilities are evaluated based on the mining and all processing operations to the point of significant external sales and not the mining assets alone.
3. You also disclose that you have aggregate reserves sufficient for many years production in several locations in your filing. Industry Guide 7 requires that you disclose material information concerning production, proven and probable reserves, locations and the nature of your mineral interests. Industry Guide 7 may be reviewed on the Internet at <http://www.sec.gov/divisions/corpfin/forms/industry.htm#secguide7>. In future filings please disclose the following information in a table for your mines and/or quarries. Please group your mining properties in a similar manner to your operating divisions and indicate the following in your future filings:
  - Number of quarries, mines, and processing facilities
  - Location and type of facility
  - Indicate the total acreage of your properties that are owned compared to those which are leased.
  - Total proven and/or probable reserves (quantities or tonnage)
  - Reserve quality (grade) information, if that is applicable
  - Material types or salable product produced
  - Annual production and plant capacity
  - Number of years until reserve depletion at current production rates.

- Please include only material that can be produced during the life of the lease for reserves that are leased. Also include only those materials that have environmental permits for extraction.
4. Please insert a small-scale map showing the location and access to your properties in your future filings. See Instruction No. 3(b) to Item 102 of Regulation S-K. Please note that the EDGAR program now accepts digital maps. So please include these in any future amendments that are uploaded to EDGAR. It is relatively easy to include automatic links at the appropriate locations within the document to GIF or JPEG files, which will allow the figures and/or diagrams to appear in the right location when the document is viewed on the Internet. For more information, please consult the EDGAR manual, and if you need addition assistance, please call Filer Support at 202-942-8900. Otherwise provide the map to the engineering staff for our review.
  5. Please disclose the extent your reserve estimates have been reviewed by third parties in your filings. If you have not used any third parties to review your reserves within the last three years, disclose this fact in your future filings.
  6. Please note that proven reserves presented in accordance with Industry Guide 7 may be combined with probable reserves only if the difference in the degree of assurance between the two classes of reserves cannot be readily defined and a statement to that effect is included in your filing. Absent this condition, proven and probable reserves should be segregated.
  7. In future filings, please disclose your annual production as required by Instruction No. 3 to Item 102 of Regulation S-K.
  8. High quality and purity limestone and gypsum deposits are generally defined by the mineral content, such as calcium carbonate ( $\text{CaCO}_3$ ) content, percentage or another appropriate measurement. Does this apply to your limestone and gypsum properties? If so, please disclose the appropriate measurement for each mining operation in future filings. If not, disclose this fact and present the challenges presented to control plant feed quality, define the impacts on the ore reserve estimates, mining and processing recoveries, and your processing operations in future filings.

Sources and Uses of Cash Flows, page 127

9. We note your disclosure on page 16 that the ability of your subsidiaries to pay dividends may be restricted by the laws of the jurisdictions under which such subsidiaries are incorporated. In future filings, please disclose the nature and extent of any legal or economic restrictions on the ability of subsidiaries to

transfer funds to the Company in the form of cash dividends, loans, or advances and the impact such restrictions have had or are expected to have on the ability of the Company to meet its cash obligations. See Item 5.B.1(b) of Form 20-F.

Disclosure Controls and Procedures, page 192

10. We note your disclosure of the definition of disclosure controls and procedures; however, your definition does not conform to the definition contained in Exchange Act Rule 13a-15(e) since you do not state that such information is “accumulated” before it is communicated to management. Please revise accordingly in future filings or simply state an effectiveness conclusion without including a definition.
11. We note your statement that you “maintain a system of disclosure controls and procedures designed to provide reasonable assurance that the information required to be disclosed in the reports . . . .” Please confirm to us supplementally that your principal executive officer and principal financial officer concluded that your disclosure controls and procedures are effective at the reasonable assurance level. Please comply with this comment in future filings.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Mr. Ramiro G. Villarreal Morales  
CEMEX, S.A.B de C.V.  
August 9, 2010  
Page 5

You may contact Jessica Kane at (202) 551-3235 or Craig Slivka at (202) 551-3729 if you have any questions.

Sincerely,

Pamela Long  
Assistant Director