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**COLORADO DEPARTMENT OF PUBLIC HEALTH
AND ENVIRONMENT
AIR POLLUTION CONTROL DIVISION
STATIONARY SOURCES PROGRAM**

NOTICE OF VIOLATION

Case No. 2008-037

In the Matter of CEMEX, Inc.

The Colorado Department of Public Health and Environment (“CDPHE”), through the Air Pollution Control Division (“Division”), issues this Notice of Violation to CEMEX, Inc. (“CEMEX”) pursuant to the Division’s authority under § 25-7-115(2), C.R.S.

I. ALLEGED FINDINGS OF FACT

1. The Division issues this Notice of Violation (“NOV”) as a follow up to multiple inspections at CEMEX’s Portland Cement Plant located at 5134 Ute Highway, Lyons, Boulder County, Colorado (“Plant”). Activities at the Plant include raw material handling and processing, kiln operation, clinker storage, finish grinding, cement storage, and cement packaging. The Plant is subject to the terms and conditions of Colorado Air Quality Control Statutes, the Colorado Air Quality Control Commission (“AQCC”) Regulations, the Code of Federal Regulations (“CFR”), and the following:

- a. Colorado Construction Permit No. 05BO0703 Initial Approval (“Permit No. 05BO0703,” issued to CEMEX on April 11, 2006);
- b. Colorado Construction Permit No. 12BO444-2 Final Approval (“Permit No 12BO444-2,” issued to Southdown, Inc. d/b/a Southwestern Portland Cement Co. on December 17, 1993);
- c. Title V Operating Permit No. 95OPBO082 (“Operating Permit” or “Permit No. 95OPBO082,” issued February 1, 2000, last revised, October 8, 2002); and
- d. Compliance Order on Consent (“COC”) for Case No. 2005-049 (effective date: December 28, 2006) and the subsequent modification to the COC (“COC Modification”) for Case No. 2005-049 (effective date: October 10, 2007).

2. Mr. Jason Long, of the Division, conducted inspections of the Plant on May 16, 2007, August 7, 2007, and September 19, 2007. Ms. Gabi Hoefler, of Boulder County, and a duly delegated representative of the Division, conducted a site visit on January 22, 2008, as a part of a complaint investigation. Based upon a review of Mr. Long’s inspections, Ms. Hoefler’s site visit, and a review of records related to the Plant, the Division has made the following compliance determinations:

- a. Pursuant to Section II, Condition 20 of Permit No. 95OPBO082, CEMEX is subject to 40 CFR Part 60, Subpart OOO, Standards of Performance for Non-Metallic Mineral Processing Plans, as adopted by reference in AQCC Regulation No. 6, Part A. 40 CFR 60.672(b) states that no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point or belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity.
 - i. A complaint of opacity and CEMEX's Upset/Malfunction Condition Report ("Report") submitted to the Division identified an opacity event from the discharge of the raw material stacker belt on June 11, 2007 between 7:00am and 7:15am. The Report states that there is "no indication that the opacity and/or permit standards were exceeded." Credible evidence to the contrary, provided in photographs taken by the complainant, indicates that the opacity is approximately 60 percent. While the Report stated that there was no indication that the opacity and/or permit standard were exceeded, the upset/malfunction was denied in a letter from the Division dated June 26, 2007.
 - ii. A complaint of opacity identified an emission release from the raw material stacker belt on November 8, 2007 at approximately 7:00 am. Credible evidence provided in a photograph indicates opacity of approximately 50 percent.
 - iii. A complaint regarding dust from the material stacker was filed with Boulder County on January 8, 2008. During Ms. Hoefler's site visit, she reviewed the stored video from the Plant camera and determined that the event lasted a total of 13 minutes, from 3:52 p.m. to 4:05 p.m., and opacity ranged from 30 percent to 60 percent, exceeding the 10 percent standard.
 - iv. During her site visit on January 22, 2008, Ms. Hoefler observed dust dropping from the main conveyor belt at the "4-5 transfer point." Ms. Hoefler conducted an opacity reading of the dust that showed opacity of 19.6%, averaged from 24 consecutive 15-second intervals, which is in excess of the 10 percent standard set forth in Section II, Condition 20 of Permit No. 95OPBO082 (40 CFR 60.672[b]). After documenting the reading, Ms. Hoefler provided a copy of the Visible Emission Observation form to the Plant manager, Mr. Steve Goodrich.
- b. Pursuant to Section II, Condition 24.10.2 of Permit No. 95OPBO082, CEMEX is subject to 40 CFR Part 63, Subpart LLL, National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry. 40 CFR 63.1345(a)(2) states that no owner or

operator of a new or existing clinker cooler subject to this subpart shall cause to be discharged into the atmosphere from the clinker cooler any gases which exhibit opacity greater than 10 percent. CEMEX filed Upset/Malfunction Condition Reports to the Division identifying opacity events from the clinker cooler on February 1, February 6, February 8 and March 19, 2008. Each of these upsets appears to have a recurring pattern of coal mill plugging, which contributed to a fuel change in the kiln. The fuel change attributed to a change in the burning zone/chemistry inside the kiln and is noted as at least a partial reason why each of the upsets occurred. These occurrences appear to be indicative of either inadequate design, operation, or maintenance of the coal mill and could have been avoided by better operation and maintenance practices. These upset/malfunctions were denied in a letter from the Division dated April 15, 2008.

- c. Section II, Condition 5.5 of Permit No. 95OPBO082 states that performance testing for lead, sulfur dioxide, nitrogen oxides, carbon monoxide, and volatile organic compounds (“VOCs”) shall be performed on the Raw Materials Dryer within one year of issuance of Permit No. 95OPBO082. CEMEX performed a stack test in August 2006, which demonstrated compliance with the requirements established by U.S. EPA’s test methodologies; however, the test was not completed within five years from the previous test (April 2000).
- d. Pursuant to Section II, Condition 10.3 of Permit No. 95OPBO082, kiln feed rate shall not exceed 120 tons per hour (“tph”). CEMEX exceeded the permitted kiln feed rate as listed below:

2005 Kiln Feed Rate exceedances of the 120-tph limit

Date	Kiln Feed Rate tph	Date	Kiln Feed Rate tph
1/25/05	125.5	4/19/05	129.1
3/9/05	134.4	5/3/05	129.7
3/27/05	126.1	5/7/05	124.0
3/29/05	126.1	5/27/05	166.7
4/6/05	123.7	12/17/05	125.3
4/15/05	133.3	12/29/05	120.6

2006 Kiln Feed Rate exceedances of the 120-tph limit

Date	Kiln Feed Rate tph	Date	Kiln Feed Rate tph
4/29/06	122.7	9/15/06	125.3
7/9/06	121.8	9/21/06	146.3
8/21/06	130.5	10/5/06	125.9
9/1/06	128.3	10/6/06	121.3
9/4/06	128.4		

- e. Pursuant to Section II, Condition 10.8 of Permit No. 95OPBO082, NO_x, SO₂, CO, and VOC emissions shall be monitored on a continuous basis by certified continuous emission monitors. Proper installation, certification, and operation shall include annual certification and quarterly audits of the calibration gases.

- i. On June 28, 2007, Environmental Consultants and Services, Inc. performed an O₂, NO_x, SO₂, CO, and Flow Relative Accuracy Test Audit (“RATA”) on the main stack at the CEMEX facility. Data generated during the RATA showed that the pollutant mass emission rate reported in the unit of the standard (lbs/hr) data from the Continuous Emission Monitoring System (“CEMS”) was not accurate and the CEMS failed the RATA. No default value was determined or had ever been programmed for the moisture content variable into the CEMS. Using actual hourly flow and pollutant concentration values, the Division confirmed that the Data Acquisition System (“DAS”) was not reporting moisture-corrected mass emission rates. Historical test data indicates that the moisture content of the stack gas is in the range of 18 percent to 24 percent, meaning that pollutant mass emission rates were being consistently over-reported by that margin. A review of RATA reports from 2001 to the present indicates that (with one exception) testing in units of standard (lbs/hr) was never performed on the CEMS. A review of the data indicates that in 2001, the DAS was correcting for stack moisture content as described in the Continuous Monitoring System Quality Assurance Program (“QA Plan”); however, the data shows that no moisture correction was made during 2002 through 2007 in violation of the "proper installation, certification, and operation of the CEMS" requirement in Section II, Condition 10.8 of Permit No. 95OPBO082.
 - ii. While reviewing the configuration of the DAS in December 2007, CEMEX personnel discovered that the CO channel had been set to invalidate any data greater than 500 ppm. Therefore, CO emissions greater than 500 ppm were not being included in annual emission totals. The incorrect DAS setting constitutes a violation of the proper installation, certification and operation of the CEMS requirement in Section II, Condition 10.8 of Permit No. 95OPBO082.
- f. Section II, Condition 11.g of Permit No. 12BO444-2 states that the CEMS shall be maintained and operated as required under 40 CFR, §60.13. 40 CFR, §60.13 states that the CEMS shall be subject to the provisions of 40 CFR 60, Appendix B and 40 CFR, Appendix F. 40 CFR, Appendix F requires that the CEMS operate in accordance with the QA Plan. The Plant’s QA Plan states that the DAS will correct for stack moisture content. CEMEX’s failure to operate the CEMS within the accuracy requirements specified under 40 CFR, Appendix B, Performance Specification 6 from 2002-2007 and CEMEX’s failure to operate the CEMS in accordance with the QA Plan (see 1.2.f.i. of this NOV) constitutes a violation of 40 CFR, §60.13.
- g. Regarding CEMEX’s Clinker/Gypsum Silos and Weigh Feeders (P009), Sheltered Clinker Storage Stockpile with Underground Reclamation (P010),

Cement Finish Mill and Bucket (P011), High Efficiency Separator (Classifier) and Baghouse Collector (P012), and Cement Storage Silos/Packhouse/Loadout (P013), Section II, Condition 11.3 of Permit No. 95OPBO082 states that stack testing for PM shall be performed as set forth in Section II, Condition 23 of Permit No. 95OPBO082, except that tests are required once every five years (once per permit term), instead of annually.

A test shall be performed for a representative bagfilter for each activity group (P009, P010, P011, P012, and P013). CEMEX performed a stack test for PM and PM₁₀ in September 1999; an inspector from the Division observed the testing and selected representative bagfilters P011, P012, and P013 to be tested. CEMEX conducted stack tests in May 2006 establishing PM and PM₁₀ emission rates for each activity group; however, the 2006 tests were not performed within five-years of the previous test.

- h. Regarding CEMEX's handling and processing of CKD and Raw Material Waste Dust, Section II, Condition 13.2 of Permit No. 95OPBO082 states that stack testing for PM shall be performed as set forth in Section II, Condition 23 Permit No. 95OPBO082, except that a test is required once every five years (once per permit term), instead of annually. CEMEX performed a stack test on January 21, 2000 that demonstrated compliance with the permitted emission limits for PM and verified that PM₁₀ emissions were no more than 50 percent of the total particulate. CEMEX performed another stack test on May 15, 2006, which established a PM emission rate of 0.0096 gr/dscf; however, the test was not performed within five years of the previous test.
- i. Pursuant to Section II, Condition 20.1 of Permit No. 95OPBO082, an EPA Method 9 opacity observation, in accordance with Appendix A of 40 CFR Part 60, and 40 CFR, §60.675(c) (NSPS Subpart OOO), shall be conducted for the bagfilter at least semi-annually. CEMEX failed to conduct semiannual Method 9 readings for the primary crusher bagfilter subject to NSPS Subpart OOO during the second semiannual period of 2006.
- j. Pursuant to Section II, Condition 22.2 of Permit No. 95OPBO082, no owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from the building of a new fire, cleaning of fire boxes, soot blowing, start-up, any process modification, or adjustment or occasional cleaning of control equipment, which is in excess of 30 percent opacity for a period or periods aggregating more than six minutes in any sixty consecutive minutes (AQCC Regulation No. 1, Section II.A.4). CEMEX reported one opacity exceedance of 33.75 percent for a period aggregating six minutes in one sixty-minute period on January 15, 2007, during cleaning of the Finish Mill Auxiliary dust collector.
- k. Emission points P002, P007, P007A, P008, P009, P010, P010A, P011, P012,

and P013 are subject to Section II, Condition 23 of Permit No. 95OPBO082, which states that performance testing for particulate emissions shall be performed within one year of issuance of Permit No. 95OPBO082, and every year thereafter, in accordance with the requirements and procedures set forth in EPA Test Method 5 as set forth in 40 CFR Part 60, Appendix A. A stack testing protocol shall be submitted for Division approval at least thirty (30) calendar days prior to performance of the test. CEMEX has submitted testing protocols to the Division prior to the testing; however, stack tests have not been conducted for each emission point as required. Specifically, PM stack tests for P007A, P009, P010, P011, P012, P013 have not been conducted every five (5) years as required under the individual permit conditions for each emission point.

- l. Section II, Condition 20.2 of Permit No. 95OPBO082 states that stack testing for PM shall be performed as set forth in Section II, Condition 23 of Permit No. 95OPBO082, except that tests are required once every five years (once per permit term), instead of annually. CEMEX failed to conduct a stack test of a representative bag filter subject to NSPS Subpart OOO establishing a PM emission rate within the five (5) year permit term.
- m. Pursuant to Section IV, Condition 2.b of Permit No. 95OPBO082, all compliance certifications for terms and conditions in the Operating Permit shall be submitted to the Division at least annually (“annual compliance certifications”) unless a more frequent period is specified in the applicable requirement or by the Division in the Operating Permit.
 - i. To date a signed copy of the annual compliance certification for the period of February 2006 through January 2007, due March 1, 2007, has not been received by the Division. The Division notes that a copy of the certification was received electronically on November 7, 2007.
 - ii. CEMEX did not report the error in CEMS data resulting from the elimination of the moisture correction factor (see 1.2.f.i of this NOV) from 2002 through 2007 or the invalidation of CO data above 500 ppm (“Data Errors”).
- n. In a letter from the Division to CEMEX, dated January 24, 2008, the Division required CEMEX to submit the annual compliance certification for the period of February 1, 2008 through March 1, 2008 within one (1) calendar month following the effective date of the renewal permit between the last report submittal and the effective date of the renewal permit. CEMEX failed to submit the annual compliance certification for the period February 1, 2008 through February 29, 2008 as required by the Division’s January 24, 2008 letter.
- o. Pursuant to Section IV, Condition 22.d of Permit No. 95OPBO082, CEMEX

shall submit to the Division all reports of any required monitoring at least every six (6) months.

- i. CEMEX failed to identify violations of conditions 20.1 and 22.2 of Permit No. 95OPBO082 in the semiannual monitoring and deviation report (“SAR”) for the period August 1, 2006 through January 31, 2007. The Division notes that an amended SAR was submitted via email October 23, 2007, for the period August 1, 2006 through January 31, 2007, to include the deviations; however, to date a signed copy has not been received by the Division; and
 - ii. CEMEX failed to report Data Errors in the SARs from 2002 through 2007.
- p. Pursuant to AQCC Regulation 3, Part A, §II.B.1 Air Pollution Emission Notices (“APENs”) submitted to the Division shall include an estimate of the annual actual emissions, including emission controls. The emissions estimate shall be based upon actual test data or, in the absence of such data, upon estimations acceptable to the Division. CEMEX failed to accurately report emissions of NO_x, CO, and SO₂ in the APEN submitted May 2, 2007 resulting from the elimination of the moisture correction factor in CEMS data from 2002 through 2007.
- q. Pursuant to AQCC Regulation 3, Part A, §II.C.1.e, a revised APEN shall be filed before the previous APEN expires. AQCC Regulation 3, Part A, §II.B.2 states that an APEN is valid for a period of five years. CEMEX failed to file APENs for AIRS points 001, 003, 004, 005, 006, 008, 016, 017, 018, 019, 021, 022, 023, 028, 031 within the five-year period. APENs for each of the points above were submitted by Southdown Inc. (with the exception of 031) and received by the Division on the date listed below. APENs received in 1998 were listed in a letter by Southdown Inc. dated April 28, 2000, but no copies were found in the file. A single APEN for the name change to CEMEX, Inc. was received March 5, 2001.

AIRS Pt	DATE Received
001	May 10, 2000
003	May 10, 2000
004	May 10, 2000
005	May 10, 2000
006	May 10, 2000
008	May 10, 2000
016	1998
017	1998
018	1998

019	May 10, 2000
021	1998
022	1998
023	May 10, 2000
028	August 29, 2000
031	May 3, 2002

- r. Pursuant to the COC Modification, CEMEX will provide in a quarterly report the 24-hour (midnight to midnight block average) data to the Division from the PM10 monitors (installed on or before July 31, 2007) that monitor particulate matter from the Plant. To date, the Division has received one month of PM10 data (October 2007). The Division notes that CEMEX submitted a spreadsheet showing data completeness for July 2007 through September 2007; however, CEMEX did not provide actual data for the third and fourth quarters of 2007, as required in Condition 15 of the COC Modification.

II. PROVISIONS OF THE LAW ALLEGED TO HAVE BEEN VIOLATED

1. CEMEX exceeded the 10 percent opacity limit on the raw material conveyance system on June 11, 2007, November 8, 2007, January 8, 2007, and January 22, 2008, violating 40 CFR 60.672(b), Section II, Condition 20 of Permit No. 95OPBO082, and AQCC Regulation No. 6, Part A.
2. CEMEX exceeded the 10 percent opacity limit on the clinker cooler on February 1, 2008, February 6, 2008, February 8, 2008, and March 19, 2008 violating 40 CFR 63.1345(a)(2), Section II, Condition 24.10.2 of Permit No. 95OPBO082.
3. CEMEX failed to conduct a stack test on the Raw Materials Dryer for lead, sulfur dioxide, nitrogen oxides, carbon monoxide, and VOCs within five years of the previous test, violating Section II, Condition 5.5 of Permit No. 95OPBO082.
4. CEMEX exceeded the permitted 120-tph kiln feed rate on twelve occasions in 2005 and nine occasions in 2006, violating Section II, Condition 10.3 of Permit No. 95OPBO082.
5. CEMEX failed to properly operate, certify, and provide quality assured data from the CEMS from January 2002 through September 2007, violating Section II, Condition 10.8 of Permit No. 95OPBO082.

6. CEMEX failed to operate the CEMS within the accuracy requirements specified under 40 CFR, Appendix B, Performance Specification 6 and CEMEX failed to operate the CEMS in accordance with the QA Plan from January 2002 through September 2007, violating 40 CFR, §60.13.

7. CEMEX failed to conduct stack tests establishing PM and PM₁₀ emission rates for each activity group (P009, P010, P011, P012, and P013) within five-years of the previous test, violating Section II, Condition 11.3 of Permit No. 95OPBO082.

8. CEMEX failed to conduct a stack test establishing a PM emission rate for CKD and Raw Material Waste Dust handling and processing within five-years of the previous test, violating Section II, Condition 13.2 of Permit No. 95OPBO082.

9. CEMEX failed to conduct semiannual EPA Method 9 readings for the primary crusher bagfilter subject to NSPS Subpart OOO during the second semiannual period of 2006, violating Section II, Condition 20.1 of Permit No. 95OPBO082.

10. CEMEX exceeded 30 percent opacity during the cleaning of the Finish Mill Auxiliary dust collector on January 15, 2007, violating Section II, Condition 22.2 of Permit No. 95OPBO082 and AQCC Regulation No. 1, Section II.A.4.

11. CEMEX failed to conduct PM stack tests for emission points P007A, P009, P010, P011, P012, and P013 as required in Section II, Condition 23 of Permit No. 95OPBO082.

12. CEMEX failed to conduct a stack test of a representative bagfilter subject to NSPS Subpart OOO, establishing a PM emission rate within the five-year permit term, violating Section II, Condition 20.2 of Permit No. 95OPBO082.

13. CEMEX failed to submit to the Division the annual compliance certification for the period of February 2006 through January 2007 and CEMEX failed to report Data Errors, violating Section IV, Condition 2.b of Permit No. 95OPBO082.

14. CEMEX failed to submit to the Division the annual compliance certification for the period February 1, 2008 through February 29, 2008 as required by the Division's January 24, 2008 letter.

15. CEMEX failed to submit to the Division reports of all required monitoring at least every six (6) months, violating Section IV, Condition 22.d of Permit No. 95OPBO082.

16. CEMEX failed to accurately report emissions of NO_x, CO, and SO₂ in the APEN submitted May 2, 2007, violating AQCC Regulation 3, Part A, §II.B.

17. CEMEX failed to file APENs for AIRS points 001, 003, 004, 005, 006, 008, 016, 017, 018, 019, 021, 022, 023, 028, 031 prior to their expiration, violating AQCC Regulation 3, Part A, §II.C.1.e.

18. CEMEX failed to provide, in quarterly reports, the 24-hour (midnight to midnight block average) data to the Division from the PM10 monitors (installed on or before July 31, 2007) that monitor particulate matter from the Plant, violating Condition 15 of the COC Modification.

III. STANDARD PENALTY PROVISION FOR THE VIOLATION AS ALLEGED

1. Sections 25-7-115(3)(b) and 25-7-122(1)(b), C.R.S., provide that any person who violates any requirement of a construction permit or a regulation of the Commission shall be subject to a civil penalty of not more than Fifteen Thousand Dollars (\$15,000.00) per day for each day of such violation.

2. Section 25-7-115(5), C.R.S., requires the Division to determine if a noncompliance penalty is applicable. If the Division finds a noncompliance penalty is applicable, the Division must assess the penalty for any period of violation from the date of this notice until the date on which the emission source is brought into compliance. The Division will calculate the noncompliance penalty in accordance with the provisions of § 25-7-115(5)(b), C.R.S.

IV. CONFERENCE REGARDING THE ALLEGED VIOLATION

1. The Division shall schedule a conference, to be held at the Air Pollution Control Division office, located at 4300 Cherry Creek Drive South, Denver, Colorado 80246, regarding the violations described above at an appropriate date and time and consistent with the requirements of § 25-7-115(3), C.R.S. This conference will provide CEMEX an opportunity to submit data, views, and arguments concerning the violation and whether assessment of civil and noncompliance penalties is appropriate. The conference is an informal proceeding; however, you may have legal counsel attend with you. Following the conference and upon completion of our investigation, the Division will determine whether a Compliance Order will be issued and whether a civil penalty and noncompliance penalty will be assessed. The Division may provide further opportunity for you to respond after the conference if circumstances warrant.

2. If the scheduled conference date and time is not convenient for you, contact Mr. Robert Jorgenson, at 303-692-3171, to reschedule the conference. If you have any other questions concerning the conference or other matters prior to the scheduled conference, contact Mike Skorupka at 303-692-3123, to discuss those concerns.

V. ADDITIONAL ACTION BY THE DIVISION

If you fail to attend the conference, the Division will issue a Compliance Order and possibly assess penalties against CEMEX. Subsequent violation of the Compliance Order may subject CEMEX to further enforcement action under § 25-7-121, C.R.S. (court injunction) and § 25-7-122, C.R.S. (civil penalties up to \$15,000.00 per day of violation).

NOTICE OF VIOLATION
In the Matter of CEMEX, Inc.
AIRS No: 013/0003

VI. EFFECTIVE DATE OF NOTICE

This Notice of Violation shall be considered issued upon mailing in accordance with § 25-7-103 (15), C.R.S.

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Robert Jorgenson
Supervisor, Field Services
Stationary Sources Program
Air Pollution Control Division

Jason Long
Field Enforcement Officer
Stationary Sources Program
Air Pollution Control Division

cc: Paul Carr, APCD
G. Faith Little, APCD
Mike Skorupka, APCD
Will Allison, Attorney General's Office

Gabi Hoefler, Boulder County Health Department
Shannon McMillan, APCD
Cindy Beeler, EPA (Region VIII)