UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF ILLINOIS

UNITED STATES OF AMERICA, Plaintiff, and the STATE of ALABAMA, the STATE of ILLINOIS, the STATE of IOWA, the STATE of KANSAS, the STATE of MICHIGAN, the STATE of MISSOURI, the STATE of NEW YORK, the STATE of OHIO, the COMMONWEALTH of PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, the STATE of SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL, the WASHINGTON STATE DEPARTMENT OF ECOLOGY, the OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY, and the PUGET SOUND CLEAN AIR AGENCY, Plaintiff-Intervenors, v. LAFARGE NORTH AMERICA, INC., LAFARGE MIDWEST, INC., and LAFARGE BUILDING MATERIALS, INC., Defendants.	Civil Action No. 3:10-cv-00044-JPG-CJP

CONSENT DECREE

Table of Contents

I. JURISDICTION AND VENUE 3

II. APPLICABILITY 3

III. DEFINITIONS 5

IV. CIVIL PENALTY 19

V. NO_x CONTROL TECHNOLOGY, EMISSION LIMITS, TONNAGE LIMITS, AND MONITORING REQUIREMENTS 26

A. NO_x Control Technology, Emission Limits and Tonnage Limits. 26

B. NO_x Continuous Emission Monitoring Systems 47

VI. SO_2 CONTROL TECHNOLOGY, EMISSION LIMITS, TONNAGE LIMITS, AND MONITORING REQUIREMENTS 48

A. SO_2 Control Technology, Emission Limits, and Tonnage Limits. 48

B. SO_2 Continuous Emission Monitoring Systems 70

VII. TEMPORARY CESSATION OF KILN OPERATION 71

VIII. ELECTION TO RETIRE AND REPLACE KILNS 73

IX. PROHIBITION ON NETTING CREDITS OR OFFSETS FROM REQUIRED CONTROLS 74

X. PERMITS 76

XI. REVIEW AND APPROVAL OF SUBMITTALS 81

XII. REPORTING REQUIREMENTS 82

XIII. STIPULATED PENALTIES 86

XIV. FORCE MAJEURE 95

XV. DISPUTE RESOLUTION 98

XVI. INFORMATION COLLECTION AND RETENTION 100

XVII. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS 103

XVIII. COSTS 106

XIX. NOTICES 106

XX. EFFECTIVE DATE 111

XXI. RETENTION OF JURISDICTION 111

XXII. MODIFICATION 111

XXIII. TERMINATION 112

XXIV. PUBLIC PARTICIPATION 113

XXV. SIGNATORIES/SERVICE 114

XXVI. INTEGRATION 114

XXVII. FINAL JUDGMENT 115

XXVIII. APPENDIX 115

WHEREAS, Plaintiff, the United States of America, on behalf of the United States Environmental Protection Agency (herein U.S. EPA") has, simultaneously with the lodging of this Consent Decree filed a Complaint against Defendants, Lafarge North America Inc., ("Lafarge") and its wholly owned subsidiaries Lafarge Midwest, Inc. ("Lafarge Midwest") and Lafarge Building Materials Inc. ("Lafarge Materials") (collectively "Defendants"), pursuant to Sections 113(b) and 167 of the Clean Air Act ("Clean Air Act" or "the Act"), 42 U.S.C. §§ 7413(b) and 7477, for injunctive relief and the assessment of civil penalties for violations of one or more of the following statutory and regulatory requirements of the Act at one or more of each of the individual Defendant's Portland cement plants which collectively are located in thirteen (13) different states within the United States: the Prevention of Significant Deterioration ("PSD") provisions of the Act, 42 U.S.C. §§ 7470-7492; and/or the nonattainment New Source Review ("nonattainment NSR") provisions of the Act, 42 U.S.C. §§ 7501-7515; and/or the federally-approved and enforceable state implementation plans ("SIPs"), which incorporate and/or implement the above-listed federal PSD and/or nonattainment NSR requirements; and Title V of the Act, 42 U.S.C. §§ 7661-7661f, and Title V's implementing federal and state regulations.

WHEREAS, the State of Alabama, the State of Illinois, the State of Iowa, the State of Kansas, the State of Michigan, the State of Missouri, the State of New York, the State of Ohio, the Commonwealth of Pennsylvania Department of Environmental Protection, the South Carolina Department of Health and Environmental Control, the Washington State Department of Ecology, the Oklahoma Department of Environmental Quality, and the Puget Sound Clean Air Agency (collectively, "State Plaintiffs") have filed a Complaint in Intervention;

WHEREAS, U.S. EPA has provided notice of the violations alleged herein to the Defendants and to each of the states where Defendants' Facilities identified in the Complaint and

Complaint in Intervention are located, and to the Puget Sound Clean Air Agency, pursuant to Section 113(a) of the Act, 42 U.S.C. § 7413(a), and Defendants stipulate that they have received actual notice of the violations alleged in the Complaint and the Complaint in Intervention and that they do not contest the adequacy of the notice provided.

WHEREAS, the Lafarge Companies deny the allegations of the Complaint of the United States and the Complaint in Intervention of the State Plaintiffs and do not admit that they have any liability to the United States or the State Plaintiffs for civil penalties or injunctive relief arising out of the transactions and occurrences alleged in the Complaint or Complaint in Intervention;

WHEREAS, Plaintiff United States, the State Plaintiffs, and the Lafarge Companies have agreed that settlement of this action is in the public interest and will result in air quality improvements in the areas where Defendants' Facilities are located, and that entry of this Consent Decree without further litigation is the most appropriate means of resolving this matter; and

WHEREAS, the Parties recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and will avoid litigation between the Parties and that this Consent Decree is fair, reasonable, and in the public interest.

NOW, THEREFORE, before the taking of any testimony, without the adjudication or admission of any issue of fact or law except as provided in Section I (Jurisdiction and Venue), below, and with the consent of the Parties, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction of the subject matter herein and over the Parties consenting hereto pursuant to Sections 113(b), 167, and 304(a) of the Act, 42 U.S.C. §§ 7413(b), 7477, and 7604(a), and pursuant to 28 U.S.C. §§ 1331, 1345, 1355 and 1367(a). Venue is proper under Sections 113(b) and 304(c) of the Act, 42 U.S.C. §§ 7413(b) and 7604(c), and under 28 U.S.C. §§ 1391(b) and (c) and 1395(a). For purposes of this Consent Decree and the underlying Complaint and Complaint in Intervention, the Defendants waive all objections and defenses they may have to the Court's jurisdiction over this action, to the Court's jurisdiction over the Defendants, and to venue in this District. For the purposes of the Complaint and Complaint in Intervention filed by the Plaintiffs in this matter and resolved by the Consent Decree, Defendants waive any defense or objection based on standing.

2. For purposes of this Consent Decree, the Lafarge Companies agree that the Complaint and Complaint in Intervention state claims upon which relief may be granted pursuant to Sections 113 and 167 of the Act, 42 U.S.C. §§ 7413 and 7477.

II. APPLICABILITY

3. The obligations of this Consent Decree apply to and are binding upon the United States, the State of Alabama, the State of Illinois, the State of Iowa, the State of Kansas, the State of Michigan, the State of Missouri, the State of New York, the State of Ohio, the Commonwealth of Pennsylvania Department of Environmental Protection, the South Carolina Department of Health and Environmental Control, the Washington State Department of Ecology, the Oklahoma Department of Environmental Quality, and the Puget Sound Clean Air Agency, and jointly and severally, upon the Lafarge Companies, and any successors, assigns, or other entities or persons otherwise bound by law.

4. At least 30 Days prior to any transfer of ownership or operation of any Facility identified in Paragraph 7.w., (except for Atlanta Cement Plant) the Lafarge Companies shall provide a copy of this Consent Decree to the proposed transferee and shall simultaneously provide written notice of the prospective transfer, together with a copy of the proposed written agreement, to U.S. EPA, the United States, and the Affected State(s) in accordance with Section XIX (Notices) of this Consent Decree. No transfer of ownership or operation of a Facility identified in Paragraph 7.w., whether in compliance with the procedures of this Paragraph or otherwise, shall relieve the Lafarge Companies of their obligation to ensure that the terms of the Decree are implemented, unless:

a. the transferee agrees, in writing, to undertake the obligations required by Sections V (NO_x Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements), VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements), VII (Temporary Cessation of Kiln Operation), VIII (Election to Retire and Replace Kilns), IX (Prohibition on Netting Credits or Offsets From Required Controls), Section X (Permits), Section XI (Review and Approval of Submittals), Section XII (Reporting Requirements), Section XIII (Stipulated Penalties), Section XIV (Force Majeure), Section XV (Dispute Resolution), and XVI (Information Collection and Retention) of this Decree applicable to such Facility and further agrees in writing to be substituted for the Defendants as a Party under the Decree with respect to such Facility and thus become bound by the terms thereof;

b. the United States and the Affected State(s) determine that the transferee has the financial and technical ability to assume the Consent Decree's obligations applicable to such Facility;

c. the United States and the Affected State(s) consent, in writing, to relieve Defendants of their Consent Decree obligations applicable to such Facility, and

d. the transferee becomes a party to this Consent Decree with respect to the transferred Facility, pursuant to Section XXII (Modification).

Any attempt to transfer ownership or operation of any of the Facilities identified in Paragraph 7.w., or any portion thereof, without complying with this Paragraph constitutes a violation of this Decree.

5. The Lafarge Companies shall provide a copy of this Consent Decree to all officers, employees, and agents whose duties might reasonably include compliance with any provision of this Decree, as well as to any Contractor retained to provide services required to comply with the provisions of this Consent Decree. The Lafarge Companies shall condition any such contract upon performance of the services in conformity with the provisions of this Consent Decree.

6. In any action to enforce this Consent Decree, the Lafarge Companies shall not raise as a defense the failure by any of its officers, directors, employees, agents, or Contractors to take any actions necessary to comply with the provisions of this Consent Decree.

III. DEFINITIONS

7. Terms used in this Consent Decree that are defined in the Act or in regulations promulgated by U.S. EPA pursuant to the Act shall have the meanings assigned to them in the Act or such regulations, unless otherwise provided in this Decree. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

a. "30-Day Rolling Average Emission Limit" shall mean with respect to any Kiln (or Kilns, in the case of Ravena) at a Facility, the maximum allowable rate of emission of a specified air pollutant from such Kiln or Kilns and shall be expressed as pounds of

such air pollutant emitted per Ton of clinker produced. Compliance with the 30-Day Rolling Average Emission Limit shall be determined in accordance with the following procedure, beginning on the 30th Day after the applicable deadline for Commencement of Continuous Operation pursuant to Sections V (NO_x Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) and VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements): first, sum the total pounds of the air pollutant in question emitted from the Kiln or Kilns during an Operating Day and the previous twenty-nine (29) Operating Days as measured pursuant to Section V.B. (NO_x Continuous Emission Monitoring Systems) or Section VI.B. (SO_2 Continuous Emission Monitoring Systems), as applicable; second, sum the total Tons of clinker produced by the Kiln or Kilns during the same Operating Day and previous 29 Operating Days; and third, divide the total number of pounds of the air pollutant emitted from the Kiln or Kilns during the thirty (30) Operating Days by the total Tons of clinker produced by such Kiln or Kilns during the same 30 Operating Days. A new compliance determination of the 30-Day Rolling Average Emission Limit shall be calculated for each new Operating Day in accordance with the provisions of this Consent Decree. In calculating each compliance determination of the 30-Day Rolling Average Emission Limit in accordance with this Paragraph 7.a., for a specified air pollutant at any Facility, the total pounds of such air pollutant emitted from the Kiln or Kilns during a specified period (Operating Day or 30-Day Period) shall include all emissions of that pollutant from the subject Kiln that occur during the specified period, including emissions during each Startup, Shutdown, or Malfunction, except to the extent a

Malfunction qualifies as a Force Majeure event under Section XIV and the Lafarge Companies have complied with the requirements of that Section.

b. "30-Day Rolling Average Emission Rate" shall mean with respect to each Kiln (or Kilns, in the case of Ravena) the rate of emission of a specified air pollutant (NO_x or SO_2) expressed as pounds (lbs.) per Ton of clinker produced at such Kiln(s) and calculated in accordance with the following procedure: first, sum the total pounds of the pollutant in question emitted from the specified Kiln(s) during an Operating Day and the previous twenty-nine (29) Operating Days, as measured pursuant to Section V.B. (NO_x Continuous Emission Monitoring Systems) or Section VI.B. (SO_2 Continuous Emission Monitoring Systems), as applicable; second, sum the total Tons of clinker produced by that Kiln during the same Operating Day and previous 29 Operating Days; and third, divide the total number of pounds of the specified pollutant emitted from the Kiln(s) during the thirty (30) Operating Days referred to above by the total Tons of clinker produced at such Kiln(s) during the same 30 Operating Days. A new 30-Day Rolling Average Emission Rate shall be calculated for each new Operating Day. In calculating each 30-Day Rolling Average Emission Rate, the total pounds of any pollutant emitted from a Kiln during a specified period (Operating Day or 30-Day Period) shall include all emissions of that pollutant from the subject Kiln that occur during the specified period, including emissions during each Startup, Shutdown, or Malfunction;

c. "Affected State" shall mean any State Plaintiff and its agencies and political subdivisions having jurisdiction over a Facility addressed in this Consent Decree;

d. "Business Day" means any Day, except for Saturday, Sunday, and federal holidays.

e. "CEMS" or "Continuous Emission Monitoring System" shall mean, for obligations involving NO_x and SO_2 under this Consent Decree, the devices defined, installed, calibrated, maintained, and operated in accordance with 40 C.F.R. § 60.13 and 40 C.F.R. Part 60 Appendix B and Appendix F;

f. "Commence" or "Commencement" of operation of a Control Technology shall mean to begin the introduction of the reagent employed by the Control Technology, or as otherwise defined by U.S. EPA and the Affected State in approving an alternative Control Technology pursuant to Paragraphs 52.f. and 57.f of this Consent Decree;

g. "Complaint" shall mean the complaint filed by the United States in this action;

h. "Complaint in Intervention" shall mean the complaint filed by the intervening State Plaintiffs in this action;

i. "Consent Decree" or "Decree" shall mean this Decree and the Appendix attached hereto (listed in Section XXVIII), but in the event of any conflict between the text of this Decree and any Appendix, the text of this Decree shall control;

j. "Continuously Operate" or "Continuous Operation" shall mean that when a Control Technology is used at a Kiln, except during a Malfunction of the Control Technology, it shall be operated at all times of Kiln Operation, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for such Control Technology and the Kiln;

k. "Contractor" shall mean any person or entity hired by the Lafarge Companies to perform services on its behalf necessary to comply with the provisions of this Consent Decree;

l. "Control Efficiency" shall mean the extent of reduction in the emissions of a specific air pollutant;

m. "Control Technology" shall mean Selective Non-Catalytic Reduction, Selective Catalytic Reduction, Dry Absorbent Addition, or Wet Flue Gas Desulphurization, or other alternative technology approved by U.S. EPA and the Affected State(s) pursuant to Paragraphs 52.f or 57.f of this Consent Decree;

n. "Date of Lodging of the Consent Decree" or "Date of Lodging" shall mean the date the Consent Decree is filed for lodging with the Clerk of the Court for the United States District Court for the Southern District of Illinois;

o. "Day" shall mean a calendar day unless expressly stated to be a Business Day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next Business Day;

p. "Defendants" or "Lafarge Companies" shall mean Lafarge North America, Inc., Lafarge Midwest, Inc. and Lafarge Building Materials, Inc.;

q. "Demonstration Phase" shall mean that period of time identified in the Appendix during which the Lafarge Companies will establish a 30-Day Rolling Average Emission Limit that is achievable through the implementation of Control Technology at a given Kiln and that will be applied in accordance with Sections V (NO_x Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) and VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) of this Consent Decree;

r. "Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit" shall mean, with respect to any Kiln or Kilns at a Facility, the maximum allowable rate of emission of a specified air pollutant from such Kiln or Kilns and shall be expressed as pounds of such air pollutant emitted per Ton of clinker produced. Compliance with the Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit shall be determined in accordance with the following procedure: first, sum the total pounds of the air pollutant in question emitted from the Kiln or Kilns during the most recent complete month and the previous eleven (11) months, as measured pursuant to Section V.B. (NO_x Continuous Emission Monitoring Systems) or Section VI.B. (SO_2 Continuous Emission Monitoring Systems), as applicable; second, sum the total Tons of clinker produced by the Kiln or Kilns during the most recent complete month and the previous 11 months; and third, divide the total number of pounds of the air pollutant emitted from the Kiln or Kilns during the twelve (12) months by the total Tons of clinker produced by such Kiln or Kilns during the 12 months. A new compliance determination of the Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit shall be calculated for each new complete month in accordance with the provisions of this Consent Decree. In calculating each compliance determination of the Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit for a specified air pollutant at any Facility, the total pounds of such air pollutant emitted from the Kiln or Kilns during the 12-month period shall include all emissions of that air pollutant during each Startup, Shutdown or Malfunction that occurs during the 12-month period at issue. A Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit shall apply only

during the Demonstration Phase and until a 30-Day Rolling Average Emission Limit is established under the Appendix of the Consent Decree;

s. "Dry Absorbent Addition" or "DAA" shall mean a pollution control system that combines a dry alkaline or semi-dry alkaline reagent directly with the Kiln gas stream to achieve the reduction of sulfur dioxide emissions;

t. "Effective Date" shall have the meaning given in Paragraph 156.

u. "Emission Limit" shall mean the maximum allowable Emission Rate of a specified air pollutant from any Kiln or Kilns and shall be expressed as pounds of such air pollutant emitted per Ton of clinker produced;

v. "Emission Rate" for a specified air pollutant from any Kiln or Kilns shall mean the number of pounds of such air pollutant emitted per Ton of clinker measured in accordance with this Consent Decree;

w. "Facilities" shall mean the following thirteen (13) Portland cement manufacturing facilities used for the production of Portland cement. Each of these facilities may be referred to as a "Facility."

(1) Alpena Cement Plant, 1435 Ford Avenue; Alpena, Michigan 49707 (hereinafter "Alpena" or "Alpena, Michigan");

(2) Ravena Plant, P.O. Box 3 or Route 9W, Ravena, New York 12143 (hereinafter "Ravena" or "Ravena, New York");

(3) Tulsa Cement Plant, 2609 North 145th East Avenue, Tulsa, Oklahoma 74116 (hereinafter "Tulsa" or "Tulsa, Oklahoma");

(4) Fredonia Cement Plant, 1400 South Cement Road, Fredonia, Kansas 66736 (hereinafter "Fredonia" or "Fredonia, Kansas");

(5) Sugar Creek Cement Plant, 2200 N. Courtney Road, Sugar Creek, Missouri 64050 (hereinafter "Sugar Creek" or "Sugar Creek, Missouri");

(6) Davenport Cement Plant, PO Box 690, 301 East Front Street, Buffalo, Iowa 52728 (hereinafter "Davenport" or "Davenport, Iowa");

(7) Paulding Cement Plant, 11435 Road 176, Paulding, Ohio 45879 (hereinafter "Paulding" or "Paulding, Ohio");

(8) Joppa Cement Plant, 2500 Portland Road, Grand Chain, Illinois 62941 (hereinafter "Joppa" or "Joppa, Illinois");

(9) Seattle Cement Plant, 5400 West Marginal Way Southwest, Seattle, Washington 98019 (hereinafter "Seattle" or "Seattle, Washington");

(10) Whitehall Cement Plant, 5160 Main Street, Whitehall, Pennsylvania 18052 (hereinafter "Whitehall" or "Whitehall, Pennsylvania");

(11) Harleyville Cement Plant, 463 Judge Street, Harleyville, South Carolina 29448 (hereinafter "Harleyville" or "Harleyville, South Carolina");

(12) Atlanta Cement Plant, 2520 Paul Avenue, NW, Atlanta, Georgia 30318 (hereinafter "Atlanta" or "Atlanta, Georgia"); and

(13) Roberta Cement Plant, 8039 Highway 25 West, Calera, Alabama, 35040 (hereinafter "Roberta" or "Roberta, Alabama").

x. "Facility-Wide 12-Month Rolling Average Emission Limit" shall mean, with respect to any Kiln or Kilns at a Facility, the maximum allowable rate of emission of a specified air pollutant from such Kiln or Kilns and shall be expressed as pounds of such air pollutant emitted per Ton of clinker produced. Compliance with the Facility-Wide 12-Month Rolling Average Emission Limit shall be determined in accordance with the following procedure, beginning on the 12th month after the applicable deadline for Continuous Operation pursuant to Section V (NO_x Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) and VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements), respectively: first, sum the total pounds of the air pollutant in question emitted from the Kiln or Kilns during the most recent complete month and the previous eleven (11) months; second, sum the total Tons of clinker produced by the Kiln or Kilns during the most recent complete month and the previous 11 months, as measured pursuant to Section V.B. (NO_x Continuous Emission Monitoring Systems) or Section VI.B. (SO_2 Continuous Emission Monitoring Systems), as applicable; and third, divide the total number of pounds of the air pollutant emitted from the Kiln or Kilns during the twelve (12) months by the total Tons of clinker produced by such Kiln or Kilns during the 12 months. A new compliance determination of the Facility-Wide 12-Month Rolling Average Emission Limit shall be calculated for each new complete month in accordance with the provisions of this Consent Decree. In calculating each compliance determination of the Facility-Wide 12-Month Rolling Average Emission Limit for a specified air pollutant at any Facility, the total pounds of such air pollutant emitted from the Kiln or Kilns shall include all emissions of that

air pollutant during each Startup, Shutdown or Malfunction that occurs during the 12-month period at issue;

y. "Facility-Wide 12-Month Rolling Tonnage Limit," shall mean, with respect to any Facility, the maximum allowable Tons of a specified air pollutant that may be emitted from all Kilns at a Facility during any consecutive 12-month period, expressed as Tons of such air pollutant. Compliance with the Facility-Wide 12-Month Rolling Tonnage Limit shall be determined on a monthly basis by summing the total Tons of the air pollutant in question emitted from all Kilns at a Facility during the most recent complete month and the previous eleven (11) months, as measured pursuant to Section V.B. (NO_x Continuous Emission Monitoring Systems) or Section VI.B. (SO_2 Continuous Emission Monitoring Systems), of this Consent Decree. A new compliance determination of the Facility-Wide 12-Month Rolling Tonnage Limit shall be calculated for each new complete month in accordance with the provisions of this Consent Decree. In calculating each compliance determination of the Facility-Wide 12-Month Rolling Tonnage Limit for a specified air pollutant at any Facility, the total Tons of such air pollutant emitted from the Kiln or Kilns shall include all emissions of that air pollutant during each Startup, Shutdown, or Malfunction that occurs during the 12-month period at issue;

z. "Kiln" as used in this Consent Decree shall have the same meaning as defined at 40 C.F.R. § 63.1341. The following are identified as the individual Kilns at each Facility:

(1) Alpena, Michigan: Alpena Kiln 19, Alpena Kiln 20, Alpena Kiln 21 (collectively, "Kiln Group 5"or "KG5"), Alpena Kiln 22 and

Alpena Kiln 23 (collectively, "Kiln Group 6" or "KG6"), including any Replacement pursuant to Sections VIII (Election to Retire and Replace Kilns) and IX (Prohibition on Netting Credits or Offsets from Required Controls);

(2) Ravena, New York: Ravena Kiln 1, Ravena Kiln 2, including any Replacement pursuant to Sections VIII (Election to Retire and Replace Kilns) and IX (Prohibition on Netting Credits or Offsets from Required Controls);

(3) Tulsa, Oklahoma: Tulsa Kiln 1, Tulsa Kiln 2;

(4) Fredonia, Kansas: Fredonia Kiln 1, Fredonia Kiln 2;

(5) Sugar Creek, Missouri: Sugar Creek Kiln 3;

(6) Davenport, Iowa: Davenport Kiln 1;

(7) Paulding, Ohio: Paulding Kiln 1, Paulding Kiln 2;

(8) Joppa, Illinois: Joppa Kiln 1, Joppa Kiln 2, and Joppa Kiln 3;

(9) Seattle, Washington: Seattle Kiln 1;

(10) Whitehall, Pennsylvania: Whitehall Kiln 2, Whitehall Kiln 3;

(11) Harleyville, South Carolina: Harleyville Kiln 1;

(12) Atlanta, Georgia: Atlanta Kiln 1;

(13) Roberta, Alabama: Roberta Kiln 5.

aa. "Kiln Operation" shall mean any period when any raw materials are fed into the Kiln or any period when any combustion is occurring or fuel is being fired in the Kiln;

bb. "Lafarge Companies" shall mean Lafarge North America, Inc., Lafarge Midwest, Inc., Lafarge Building Materials, Inc. or any of the foregoing;

cc. "Malfunction" as used in this Consent Decree shall have the same meaning as defined at 40 C.F.R. § 60.2;

dd. "National Ambient Air Quality Standards" or "NAAQS" shall mean national ambient air quality standards that are promulgated pursuant to Section 109 of the Act, 42 U.S.C. § 7409;

ee. "NO_x" shall mean oxides of nitrogen, measured in accordance with the provisions of this Consent Decree;

ff. "Non-attainment NSR" shall mean the non-attainment area New Source Review (NSR) program within the meaning of Part D of Subchapter I of the Act, 42 U.S.C. §§ 7501-7515, 40 C.F.R. Part 51, and any applicable State Implementation Plan.

gg. "Operating Day" shall mean any Day on which Kiln Operation has occurred;

hh. "Operating Month" shall mean any calendar month in which Kiln Operation has occurred;

ii. "Optimization Phase" shall mean those requirements identified in Section IV of the Appendix (Control Technology Start Up and Optimization Period);

jj. "Paragraph" shall mean a portion of this Decree identified by an Arabic numeral;

kk. "Parties" shall mean the United States, the State of Alabama, the State of Illinois, the State of Iowa, the State of Kansas, the State of Michigan, the State of Missouri, the State of New York, the State of Ohio, the Commonwealth of Pennsylvania Department of Environmental Protection, Washington State Department of Ecology, the South Carolina Department of Health and Environmental Control, the Oklahoma Department of Environmental Quality, the Puget Sound Clean Air Agency, and the Lafarge Companies;

ll. "PSD" shall mean the Prevention of Significant Deterioration program within the meaning of Part C of Subchapter I of the Act, 42 U.S.C. §§ 7470-7492, 40 C.F.R. Part 52, and any applicable State Implementation Plan;

mm. "Replace" or "Replacement" shall mean the construction of any new Kiln at the Ravena or Alpena Facilities pursuant to Sections V (NO_x Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) and VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) of this Consent Decree, such that the Kiln replaced by the new Kiln has been Retired;

nn. "Retire" or "Retirement" shall mean, with respect to any Kiln: (1) to permanently Shut Down the Kiln; and (2) to file an application in accordance with the Affected State's SIP to remove permanently any legal authorization for further operation of the Kiln.

oo. "Section" shall mean a portion of this Decree identified by a Roman numeral;

pp. "Selective Catalytic Reduction System" or "SCR" shall mean a pollution control system that employs ammonia-based reagent injection and a catalyst to speed the reaction of the reagent with NO_x, for the purpose of reducing NO_x emissions;

qq. "Selective Non-Catalytic Reduction" or "SNCR" shall mean a pollution control system that injects an ammonia-based reagent into the gas stream without the use of a catalyst for the purpose of reducing NO_x emissions;

rr. "SO_2" means the pollutant sulfur dioxide, measured in accordance with the provisions of this Consent Decree;

ss. "Shut Down" shall mean the cessation of Kiln Operation;

tt. "Startup" shall mean the beginning of Kiln Operation;

uu. "State Plaintiff" or "State" shall mean any of the following: the State of Alabama, the State of Illinois, the State of Iowa, the State of Kansas, the State of Michigan, the State of Missouri, the State of New York, the State of Ohio, the Commonwealth of Pennsylvania Department of Environmental Protection, the South Carolina Department of Health and Environmental Control, the Washington State Department of Ecology, the Oklahoma Department of Environmental Quality, or the Puget Sound Clean Air Agency;

vv. "Temporary Cessation," "Temporary Cessation of Kiln Operation" or "Temporarily Cease Kiln Operation" shall mean the period when a Kiln is not in a state of Kiln Operation and the Lafarge Companies have provided the required notice pursuant to Paragraph 82 of Section VII (Temporary Cessation of Kiln Operation) of this Consent Decree;

ww. "Title V permit" shall mean a permit required by and issued in accordance with the requirements of 42 U.S.C. §§ 7661 - 7661f;

xx. "Ton" or "Tons" shall mean short ton or short tons;

yy. "Tonnage Limit" shall mean the total amount of NO_x or SO_2 emissions allowed under this Consent Decree, expressed as Tons.

zz. "United States" shall mean the United States of America, acting on behalf of U.S. EPA;

aaa. "U.S. EPA" shall mean the United States Environmental Protection Agency and any of its successor departments or agencies; and

bbb. "Wet Flue Gas Desulphurization System," or "Wet FGD," shall mean a pollution control system that employs wet gas scrubber technology to achieve the reduction of sulfur dioxide emissions.

IV. CIVIL PENALTY

8. Within thirty (30) Days after the Effective Date of this Consent Decree, the Lafarge Companies shall pay to the United States as a civil penalty the sum of $3,383,000, together with interest accruing from the Effective Date through the date of payment, at the rate specified in 28 U.S.C. § 1961 as of the Effective Date. The Lafarge Companies shall pay the civil penalty due under this Paragraph 8 by FedWire Electronic Funds Transfer ("EFT") to the U.S. Department of Justice in accordance with written instructions to be provided to the Lafarge Companies following lodging of the Consent Decree by the Financial Litigation Unit of the U.S. Attorney's Office for the Southern District of Illinois, 9 Executive Drive, Fairview Heights, Illinois 62208; telephone (618) 628-3700. At the time of payment, the Lafarge Companies shall send a copy of the EFT authorization form and the EFT transaction record, together with a transmittal letter, which shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in United States, *et al.* v. Lafarge North America, Inc., *et al.*, and shall reference the civil action number and DOJ case number 90-5-2-1-08221, to the United States in accordance with Section XIX of this Decree (Notices); by email to acctsreceivable.CINWD@epa.gov; and to:

U.S. EPA Cincinnati Finance Office
26 Martin Luther King Drive
Cincinnati, Ohio 45268.

9. Within thirty (30) Days after the Effective Date of this Consent Decree, the Lafarge Companies shall pay civil penalties, together with interest accruing from the Effective

Date through the date of payment at the rate identified in Paragraph 8, in the following amounts to the following Affected States in accordance with the payment instructions below:

State	Amount	Payment Instructions
Alabama	$55,250 (plus interest per Paragraph 8 if applicable)	Corporate check made payable to "Alabama Department of Environmental Management" and mailed to: Alabama Department of Environmental Management P.O. Box 301463 Montgomery, AL 36130-1463
Kansas	$55,250 (plus interest per Paragraph 8 if applicable)	Check payable and mailed to: Kansas Department of Health and Environment Address: Kansas Department of Health and Environment 1000 SW Jackson Street, Suite 310 Topeka, Kansas 66612-1366 Attn: Victor Cooper The memorandum portion of the check shall identify the case number.

State	Amount	Payment Instructions
Illinois	$135,000 (plus interest per Paragraph 8 if applicable)	Lafarge shall pay to the State of Illinois a civil penalty of $135,000.00 to be paid as follows: $85,000.00 to the Illinois EPA for deposit into the Environmental Protection Trust Fund ("EPTF") and $50,000.00 to the Illinois Attorney General's Office for deposit into the State Projects and Court Ordered Distribution Fund for subsequent expenditure as authorized by the Attorney General. The $85,000.00 payment to the Illinois EPA shall be made by certified check or money order payable to the Illinois EPA for deposit into the Environmental Protection Trust Fund ("EPTF"). Payments shall be sent by first class mail and delivered to: Illinois Environmental Protection Agency Fiscal Services 1021 North Grand Avenue East P.O. Box 19276 Springfield, IL 62794-9276 The name, case number and the Defendant's federal tax identification number shall appear on the face of the certified check or money order. A copy of the certified check or money order and any transmittal letter shall be sent to: Environmental Bureau Illinois Attorney General's Office 500 South Second Street Springfield, Illinois 62706 The $50,000.00 payment to the Illinois Attorney General's Office shall be made by certified check or money order payable to the Illinois Attorney General's Office for deposit into the State Projects and Court Ordered Distribution Fund for subsequent expenditure as authorized by the Attorney General (con't on next page)

State	Amount	Payment Instructions
Illinois (con't)		(con't from previous page) and shall be sent by first class mail and delivered to: Josiah E. Small, Accounting Director Illinois Attorney General's Office 500 South Second Street Springfield, Illinois 62706 The name, case number and the Defendant's Federal Social Security Number shall appear on the face of the certified check or money order. A copy of the certified check or money order and any transmittal letter shall be sent to: Environmental Bureau Illinois Attorney General's Office 500 South Second Street Springfield, Illinois 62706
Iowa	$135,000 (plus interest per Paragraph 8 if applicable)	Check payable to the "State of Iowa" and mailed to: David R. Sheridan Environmental Law Division Lucas State Office Bldg. 321 E. 12th Street, Room 018 Des Moines, IA 50319
Michigan	$490,000 (plus interest per Paragraph 8 if applicable)	Check payable to the "State of Michigan" and shall be mailed to: Michigan Department of Environmental Quality, Financial and Business Services Division, Revenue Control P.O. Box 30657 Lansing, Michigan 48909-8157. To ensure proper credit, the civil penalty payment shall include the Agreement Identification No. AQD3303 on the face of the check.

State	Amount	Payment Instructions
Missouri	$55,250 (plus interest per Paragraph 8 if applicable)	Certified check payable to the "State of Missouri (Jackson County Treasurer)" and mailed to: Jo Ann Horvath Office of the Attorney General P. O. Box 899 Jefferson City, MO 65102-0899
New York	$490,000 (plus interest per Paragraph 8 if applicable)	In lieu of paying a civil penalty to New York, and in accordance with New York State Department of Environmental Conservation Guidelines, the Lafarge Companies shall fund an environmentally beneficial project as follows: Within thirty (30) calendar Days after the Effective Date of this Consent Decree, Lafarge shall send via certified mail a check in the amount of $490,000 (four hundred and ninety thousand) payable to "New York State Energy Research and Development Authority" ("NYSERDA") to Robert Rosenthal, Environmental Protection Bureau, Office of the Attorney General, The Capitol, Albany, New York 12224. NYSERDA shall use such funds to carry out one or more environmentally beneficial projects authorized by New York that pertain to energy efficiency and/or pollution reduction. New York shall implement such projects within a thirty-mile radius of Lafarge's facility located on Route 9W, Ravena, New York. The projects may include but not be limited to the weatherization of low income housing, photo-voltaic cells on municipal buildings, truck-stop electrification, replacement of outdoor wood boilers, and the retrofitting of pollution controls on school buses. New York shall have final approval authority over the project(s) selected.

State	Amount	Payment Instructions
Ohio	$55,250 (plus interest per Paragraph 8 if applicable)	Two certified checks payable to the order of "Treasurer, State of Ohio" and mailed to Karen Pierson, Paralegal, or her successor, Office of the Attorney General of Ohio, Environmental Enforcement Section, 30 East Broad Street, 25th Floor, Columbus, Ohio 43215. The two checks shall be divided in the following manner: The first check shall consist of 80% of the total civil penalty due to the State of Ohio. The memorandum portion of the check, or some other prominent location on the transmittal letter or documentation, shall include reference to "A.G. EAGO No. 354473." The second check shall consist of 20% of the total civil penalty due to the State of Ohio and shall be contributed to a fund utilized to install, in accordance with Ohio Environmental Protection Agency guidelines, diesel particulate filters for school buses operated by school districts in the State of Ohio. Money in the fund shall be made available to school districts in accordance with a grant established by the Director of the Ohio Environmental Protection Agency. The memorandum portion of the check, or some other prominent location on the transmittal letter or documentation, shall include a reference to "A.G. EAGO No. 354473" and specify that such monies are to be deposited into Fund 5CD0 established by Ohio Environmental Protection Agency for the Clean Diesel School Bus Program.
Oklahoma Department of Environmental Quality	$55,250 (plus interest per Paragraph 8 if applicable)	Check payable and mailed to: Resources Management Accounts Receivable Financial and Human Department of Environmental Quality P.O. Box 2036 Oklahoma City, OK 73101-2036

State	Amount	Payment Instructions
Pennsylvania	$55,250 (plus interest per Paragraph 8 if applicable)	Corporate check made payable to the "Commonwealth of Pennsylvania – Clean Air Fund" and mailed to: Air Quality Program Manager, PA Department of Environmental Protection, 2 Public Square Wilkes-Barre, PA 18711
Puget Sound Clean Air Agency	$41,437.50 (plus interest per Paragraph 8 if applicable)	Check payable to "Puget Sound Clean Air Agency": Dennis McLerran Executive Director Puget Sound Clean Air Agency 1904 3rd Ave, Suite 105 Seattle WA USA 98101
South Carolina Department of Health and Environmental Control	$55,250 (plus interest per Paragraph 8 if applicable)	Check payable to: "SC Department of Health and Environmental Control" R. Keith Frost, Director Air Compliance Management Division Bureau of Air Quality SC Department of Health and Environmental Control 2600 Bull Street Columbia, SC 29201
Washington State Department of Ecology	$13,812.50 (plus interest per Paragraph 8 if applicable)	Check payable to "Department of Ecology" and sent to: Department of Ecology Cashiering Unit P.O. Box 47611, Olympia, WA 98504-7611 The Memorandum on the check should reference NR09002001 and "Lafarge Settlement."

10. The Lafarge Companies shall not deduct the any penalties paid under this Section in calculating its federal or state or local income tax.

V. NO_x CONTROL TECHNOLOGY, EMISSION LIMITS, TONNAGE LIMITS, AND MONITORING REQUIREMENTS

A. NO_x Control Technology, Emission Limits and Tonnage Limits.

11. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall install the NO_x Control Technology and comply with the Emission Limits and Tonnage Limits for the specific Facilities and Kilns within their system according to Paragraphs 11 through 44. The Lafarge Companies shall Continuously Operate each NO_x Control Technology as applicable to each Kiln at all times of Kiln Operation, except for periods of Malfunction of the NO_x Control Technology. Compliance with any requirement of this Section V (NO_x Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) relating to any specific Facility or Kiln shall not be required if the Lafarge Companies Retire any such Facility or Kiln prior to any date for compliance. If one or more Kilns at a Facility is in Temporary Cessation, then the following provisions shall apply in addition to any other requirements in this Consent Decree:

a. The Lafarge Companies shall comply with the applicable Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit at all other Kilns not in Temporary Cessation at the Facility within 12 months of the Day on which the last Optimization Phase was concluded (as determined by U.S. EPA and the Affected State) at a Kiln not in Temporary Cessation at the Facility; and

b. The Lafarge Companies shall comply with the applicable Facility-Wide 12-Month Rolling Average Emission Limit and Facility-Wide 12-Month Rolling Tonnage Limit at all other Kilns not in Temporary Cessation on the dates required in this Section V (NO_x Control Technology, Emission Limits, Tonnage Limits and Monitoring Requirements).

Alpena

12. By January 1, 2011, the Lafarge Companies shall achieve and maintain compliance with an interim Facility-Wide 12-Month Rolling Tonnage Limit for NO_x of 8,650 tons.

13. Control Technology Retrofit Option.

a. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall have installed and Commenced Continuous Operation of the SNCR technology specified in the table below on individual Kilns in the order selected by the Lafarge Companies within each specified Kiln Group ("KG") at the Alpena Facility by the dates specified below:

Kiln	Control Technology	Date of Installation and Commencement of Continuous Operation	30-Day Rolling Average Emission Limits (lbs. NO_x/Ton of clinker)	Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit (lbs. NO_x/Ton of clinker)
1st Kiln in KG5	SNCR	10/1/2011	*See* Appendix	4.89
2nd Kiln in KG5	SNCR	11/1/2011	*See* Appendix	
3rd Kiln in KG5	SNCR	12/1/2011	*See* Appendix	
1st Kiln in KG6	SNCR	1/1/2012	*See* Appendix	
2nd Kiln in KG6	SNCR	3/1/2012	*See* Appendix	

b. Upon installation of the Control Technology, the Lafarge Companies shall Continuously Operate the SNCR technology during all times of Kiln Operation, except during periods of SNCR technology Malfunction.

c. If the Lafarge Companies elect not to Retire and Replace any Alpena Kiln in accordance with Section VIII (Election to Retire and Replace Kilns), then:

   i. Within 12 months after the conclusion of the Optimization Phase as it applies to Kilns 19, 20, and 21 (KG5) identified in Paragraphs 13 and 7.z(1), the Lafarge Companies shall achieve and maintain compliance with the Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit for NO_x of 4.89 lbs./Ton of clinker at Kilns 19, 20, and 21 (KG5), or, alternatively, at those Kilns the Lafarge Companies have elected not to Retire and Replace;

   ii. Within 12 months after the conclusion of the Optimization Phase as it applies to Kilns 22 and 23 (KG6) identified in Paragraphs 13 and 7.z(1), the Lafarge Companies shall achieve and maintain compliance with the Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit for NO_x of 4.89 lbs./Ton of clinker at Kilns 19, 20, 21, 22, and 23 (KG5 and KG6), or, alternatively, at those Kilns the Lafarge Companies have elected not to Retire and Replace.

d. The Lafarge Companies shall comply with the Appendix (Control Technology Demonstration Requirements) in setting a 30-Day Rolling Average Emission Limit for NO_x applicable to each Alpena Kiln that the Lafarge Companies have not otherwise elected to Retire and/or Replace pursuant to Section VIII (Election

to Retire and Replace Kilns). Within 30 Days after the establishment of a 30-Day Rolling Average Emission Limit for NO_x under the Appendix at any Alpena Kiln that the Lafarge Companies have not otherwise elected to Retire or Replace, the Lafarge Companies shall achieve and maintain compliance with the 30-Day Rolling Average Emission Limit for NO_x at the respective Kiln.

14. Kiln Replacement Option. If the Lafarge Companies elect to Retire and Replace any Alpena Kiln in accordance with Section VIII (Election to Retire and Replace Kilns), then Paragraph 13 (Control Technology Retrofit Option) shall not apply to that Kiln. Instead, the Lafarge Companies shall:

a. Within 180 Days from the Date of Lodging of this Consent Decree, submit an application addressing all applicable requirements under the Clean Air Act and the Michigan SIP for a permit to install any Replacement Kiln(s) and thereafter take all other actions necessary to obtain such permits or approvals after filing the applications including, but not limited to, responding to reasonable requests for additional information by the permitting authority in a timely fashion, and conducting any environmental or other assessment lawfully required by the permitting authority;

b. Submit written notice to U.S. EPA and the State of Michigan pursuant to Section XIX (Notices) within ten (10) Days after the date on which the Lafarge Companies have commenced construction of the Replacement Kiln(s), stating the date on which such construction commenced;

c. Complete construction of the Replacement Kiln(s) within 42 months of the date on which the Lafarge Companies commence construction of the Replacement

Kiln(s), provided that if the Lafarge Companies fail to commence construction of any Replacement Kilns by January 1, 2012 or within 12 months of permit issuance pursuant to Paragraph 14.a., whichever is earlier, then, in addition to any other remedies available to the United States or the State of Michigan under this Consent Decree or other applicable law, the Lafarge Companies shall either:

i. Install and Commence Continuous Operation of the Control Technology by January 1, 2014 or within 36 months of permit issuance pursuant to Paragraph 14.a., whichever is earlier, and thereafter comply with the Control Technology and other applicable requirements of Paragraph 13 as to the existing Alpena Kilns; or

ii. Retire the Kiln(s) by July 1, 2012 or within 18 months of a permit issuance pursuant to Paragraph 14.a, whichever is earlier.

d. Commence Kiln Operation of any Replacement Kiln(s) within 42 months of the date on which the Lafarge Companies commence construction of the Replacement Kiln, or January 1, 2015, whichever is earlier;

e. Retire the Replaced Kiln(s) within 180 Days of commencement of Kiln Operation of the Replacement Kiln(s);

f. Install and Commence Continuous Operation of one SNCR at each Replacement Kiln within 42 months of the date on which the Lafarge Companies commence construction of the Replacement Kiln, or January 1, 2015, whichever is earlier; and

g. Within 180 Days after the Lafarge Companies have commenced Kiln Operation of any Replacement Kiln at Alpena, achieve and maintain compliance with a 30-

Day Rolling Average Emission Limit for NO_x of 2.1 lb/Ton of clinker, or the applicable New Source Performance Standard for NO_x for Portland Cement Manufacturing Facilities promulgated pursuant to Section 111 of the Act, whichever is more stringent, at each Replacement Kiln.

15. Subject to Paragraph 16 below, within 54 months of the date on which the Lafarge Companies commence construction of any Replacement Kiln(s), or January 1, 2016, whichever is earlier, the Lafarge Companies shall, at Alpena, achieve and maintain compliance with a Facility-Wide 12-Month Rolling Tonnage Limit for NO_x of 7,160 Tons of NO_x emitted per 12-month period.

16. Notification Regarding Alpena Replacement Compliance Dates. If a governmental entity's failure to act upon a timely-submitted or supplemented permit or approval application submitted pursuant to Paragraph 14.a., or the action of any third-party challenging the issuance of such permit operates to delay the issuance or effectiveness of a final valid permit or approval, thereby impairing the Lafarge Companies' ability to timely satisfy the implementation schedule requirements of Paragraph 14, the Lafarge Companies shall notify, in writing, the U.S. EPA and the State of Michigan of any such delay as soon as the Lafarge Companies reasonably conclude that the delay could affect their ability to comply with the implementation schedule set forth in Paragraph 14.

a. If the Lafarge Companies provide the notification required under this Paragraph 16, the Lafarge Companies shall propose in such notification, for approval by the U.S. EPA and the State of Michigan pursuant to Section XXII (Modification), a modification to the applicable schedule of implementation setting out the time necessary to comply after the permit or approval has been finalized and becomes

effective, taking into consideration necessary periods for final contracting and delivery of equipment. In addition, the Lafarge Companies shall propose, pursuant to Section XI (Review and Approval of Submittals), interim measures (taking into consideration the anticipated time period such measures would be in use or operation) capable of reducing emissions of NO_x at the existing Alpena Kilns to be Replaced pursuant to Section VIII (Election to Retire and Replace Kilns) of this Consent Decree. Upon approval by U.S. EPA and the State of Michigan, such interim measures shall be implemented by no later than January 1, 2015 and shall continue until the Alpena Kilns to be Replaced are Retired. However, nothing in this subparagraph shall obligate the United States or the State of Michigan to modify the schedule for implementation if a final valid permit or approval necessary for the construction of any Replacement Kiln(s) is denied by the permitting authority (including the conclusion of any administrative or judicial appeals) or has not issued or become effective by July 1, 2012. Within two years of any such denial by the permitting authority (including the conclusion of any administrative or judicial appeals) or by July 1, 2014, whichever is earlier, the Lafarge Companies shall install and Commence Continuous Operation of the Control Technology and thereafter comply with the Emission Limits and other applicable requirements of Paragraph 13 as to the existing Alpena Kilns which were to be Replaced. Alternatively, the Lafarge Companies may elect to Retire the Kiln(s); provided, such Retirement shall be completed within twelve (12) months of any such denial by the permitting

authority (including the conclusion of any administrative or judicial appeals) or by July 1, 2013, whichever is earlier.

b. Stipulated Penalties Inapplicable. If the Lafarge Companies timely provide the notification required under this Paragraph 16, Stipulated penalties shall not accrue nor be due and owing during any period between an originally-scheduled implementation date and an approved modification to such date; provided, however, that if the U.S. EPA and the State of Michigan do not approve a modification to a date or dates then: (i) U.S. EPA and the State of Michigan will retain the right to seek stipulated penalties; and (ii) the Lafarge Companies will retain the right to dispute any demand for stipulated penalties, pursuant to Section XV (Dispute Resolution).

c. Force Majeure Inapplicable. The failure of a governmental entity to issue a final valid permit or approval or the action of third-parties challenging the issuance of such permit that operates to delay the issuance or effectiveness of a final valid permit or approval issued pursuant to Paragraph 14.a. necessary for the construction or operation of any Replacement Kiln(s) shall not constitute Force Majeure events triggering the requirements of Section XIV (Force Majeure); instead, the provisions set forth in this Paragraph 16 shall apply.

Ravena

17. By October 1, 2012 the Lafarge Companies shall achieve and maintain compliance with an interim Facility-Wide 12-Month Rolling Tonnage Limit for NO_x of 3,750 tons.

18. Control Technology Retrofit Option.

a. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall have installed and Commenced Continuous Operation of the SNCR technology specified in the table below in the order selected by the Lafarge Companies at Ravena Kiln 1 and Ravena Kiln 2 at the Ravena Facility by the dates specified below:

Kiln	Control Technology	Date of Installation and Commencement of Continuous Operation	30-Day Rolling Average Emission Limits (lbs. NO_x/Ton of clinker)	Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit (lbs. NO_x/Ton of clinker)
1st Selected Kiln	SNCR	1/1/2012	*See* Appendix	4.33
2nd Selected Kiln	SNCR	3/1/2012	*See* Appendix	

b. Upon installation of the SNCR technology, the Lafarge Companies shall Continuously Operate the SNCR technology during all times of Kiln Operation, except during periods of SNCR technology Malfunction.

c. If the Lafarge Companies elect not to Retire and Replace any Ravena Kiln in accordance with Section VIII (Election to Retire and Replace Kilns), then within 12 months after the conclusion of the Optimization Phase as it applies to all Kilns

identified in Paragraphs 18 and 7.z(2), the Lafarge Companies shall achieve and maintain compliance with the Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit for NO_x of 4.33 lbs./Ton of clinker at all Kilns at the Ravena Facility, or, alternatively, at those Kilns the Lafarge Companies have elected not to Retire and Replace.

d. The Lafarge Companies shall comply with the Appendix (Control Technology Demonstration Requirements) in setting a 30-Day Rolling Average Emission Limit for NO_x applicable to each Ravena Kiln that the Lafarge Companies have not otherwise elected to Retire and/or Replace pursuant to Section VIII (Election to Retire and Replace Kilns). Within 30 Days after the establishment of a 30-Day Rolling Average Emission Limit for NO_x under the Appendix at any Ravena Kiln that the Lafarge Companies have not otherwise elected to Retire or Replace, the Lafarge Companies shall achieve and maintain compliance with the 30-Day Rolling Average Emission Limit for NO_x at the respective Kiln.

19. Kiln Replacement Option. If the Lafarge Companies elect to Retire and Replace any Ravena Kiln in accordance with Section VIII (Election to Retire and Replace Kilns), the requirements of Paragraph 18 (Control Technology Retrofit Option) shall not apply to that Kiln. Instead, the Lafarge Companies shall:

a. Within 30 Days following the Date of Lodging of this Consent Decree, submit an application for an air pollution control permit, draft scope and full environmental assessment form as required in 6 NYCRR 617.6(a)(2) and 6 NYCRR 621.4(g)(1) for any Replacement Kiln(s), and a preconstruction permit as may be required by 40 C.F.R. 52.21, and thereafter take all other actions necessary to obtain such

permits or approvals after filing the applications including, but not limited to, responding to reasonable requests for additional information by the permitting authority in a timely fashion, and conducting any environmental or other assessment lawfully required by the permitting authority;

b. Submit written notice to U.S. EPA and the State of New York pursuant to Section XIX (Notices) within 10 Days after the date on which Lafarge has commenced construction of the Replacement Kiln(s), stating the date on which such construction commenced;

c. Complete construction of the Replacement Kiln(s) within 42 months of the date on which the Lafarge Companies commence construction of the Replacement Kiln(s), provided that if the Lafarge Companies fail to commence construction of any Replacement Kilns by January 1, 2012 or within 12 months of permit issuance pursuant to Paragraph 19.a., whichever is earlier, then, in addition to any other remedies available to the United States or the State of New York under this Consent Decree or other applicable law, the Lafarge Companies shall either:

   i. Install and Commence Continuous Operation of the Control Technology by January 1, 2014 or within 36 months of permit issuance pursuant to Paragraph 19.a, whichever is earlier, and thereafter comply with the Control Technology and other applicable requirements of Paragraph 18 as to the existing Ravena Kilns; or

   ii. Retire the Kiln(s) by July 1, 2012 or within 18 months of the permit issuance pursuant to Paragraph 19.a, whichever is earlier.

d. Commence Kiln Operation of the Replacement Kiln(s) within 42 months of the date on which the Lafarge Companies commence construction of the Replacement Kiln(s), or January 1, 2015, whichever is earlier;

e. Retire any Replaced Kiln(s) within 180 Days of commencement of Kiln Operation of the Replacement Kiln(s);

f. Install and Commence Continuous Operation of one SNCR at each Replacement Kiln within 42 months of the date on which the Lafarge Companies commence construction of the Replacement Kiln, or January 1, 2015, whichever is earlier; and

g. Within 180 Days after the Lafarge Companies have commenced Kiln Operation of any Replacement Kiln at Ravena, achieve and maintain compliance with a 30-Day Rolling Average Emission Limit for NO_x of 2.3 lb/Ton of clinker, or the applicable New Source Performance Standard for NO_x for Portland Cement Manufacturing Facilities promulgated pursuant to Section 111 of the Act, whichever is more stringent, at each Replacement Kiln.

20. Subject to Paragraph 21 below, within 54 months of the date on which the Lafarge Companies commence construction of any Replacement Kiln(s), or January 1, 2016, whichever is earlier, the Lafarge Companies shall, at Ravena, achieve and maintain compliance with a Facility-Wide 12-Month Rolling Tonnage Limit for NO_x of 3,750 Tons of NO_x emitted per 12-month period.

21. Notification Regarding Ravena Replacement Kiln Compliance Dates. If a governmental entity's failure to act upon a timely-submitted or supplemented permit or approval application submitted pursuant to Paragraph 19.a or the action of any third-party challenging the

issuance of such permit operates to delay the issuance or effectiveness of a final valid permit or approval, thereby impairing the Lafarge Companies' ability to timely satisfy the implementation schedule requirements of Paragraph 19, the Lafarge Companies shall notify, in writing, the U.S. EPA and the State of New York of any such delay as soon as the Lafarge Companies reasonably conclude that the delay could affect their ability to comply with the implementation schedule set forth in Paragraph 19.

a. If the Lafarge Companies provide the notification required under this Paragraph 21, the Lafarge Companies shall propose in such notification, for approval by the U.S. EPA and the State of New York pursuant to Section XXII (Modification), a modification to the applicable schedule of implementation setting out the time necessary to comply after the permit or approval has been finalized and becomes effective, taking into consideration necessary periods for final contracting and delivery of equipment. In addition, the Lafarge Companies shall propose, pursuant to Section XI (Review and Approval of Submittals), interim measures (taking into consideration the anticipated time period such measures would be in use or operation) capable of reducing emissions of NO_x at the existing Ravena Kilns to be Replaced pursuant to Section VIII (Election to Retire and Replace Kilns) of this Consent Decree. Upon approval by U.S. EPA and the State of New York, such interim measures shall be implemented by no later than January 1, 2015 and shall continue until the Ravena Kilns to be Replaced are Retired. However, nothing in this subparagraph shall obligate the United States or the State of New York to modify the schedule for implementation if a final valid permit or approval necessary for the construction of any Replacement Kiln(s) is

denied by the permitting authority (including the conclusion of any administrative or judicial appeals) or has not issued or become effective by July 1, 2012. Within two years of any such denial by the permitting authority (including the conclusion of any administrative or judicial appeals) or by July 1, 2014, whichever is earlier, the Lafarge Companies shall install and Commence Continuous Operation of the Control Technology and thereafter comply with the Emission Limits and other applicable requirements of Paragraph 18 as to the existing Ravena Kilns which were to be Replaced. Alternatively, the Lafarge Companies may elect to Retire the Kiln(s); provided, such Retirement shall be completed within twelve (12) months of any such denial by the permitting authority (including the conclusion of any administrative or judicial appeals) or by July 1, 2013, whichever is earlier.

b. Stipulated Penalties Inapplicable. Stipulated penalties shall not accrue nor be due and owing during any period between an originally-scheduled implementation date and an approved modification to such date; provided, however, that if the U.S. EPA and the State of New York do not approve a modification to a date or dates then: (i) U.S. EPA and the State of New York will retain the right to seek stipulated penalties; and (ii) the Lafarge Companies will retain the right to dispute any demand for stipulated penalties, pursuant to Section XV (Dispute Resolution).

c. Force Majeure Inapplicable. The failure of a governmental entity to issue a final valid permit or approval or action of any third party challenging the issuance of such permit that operates to delay the issuance or effectiveness of a final valid permit or approval issued pursuant to Paragraph 19.a necessary for the

construction or operation of any Replacement Kiln(s) shall not constitute Force Majeure events triggering the requirements of Section XIV (Force Majeure); instead, the provisions set forth in this Paragraph 21 shall apply.

Fredonia

22. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall have installed and Commenced Continuous Operation of the SNCR technology specified in the table below at Fredonia Kiln 1 and Fredonia Kiln 2 at the Fredonia Facility Kilns in the order selected by the Lafarge Companies by the dates specified below:

Kiln	Control Technology	Date of Installation and Commencement of Continuous Operation	30-Day Rolling Average Emission Limits (lbs. NO_x/Ton of clinker)	Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit (lbs. NO_x/Ton of clinker)
1st Selected Kiln	SNCR	10/1/2012	*See* Appendix	4.81
2nd Selected Kiln	SNCR	11/1/2012	*See* Appendix	

Upon installation of the SNCR technology, the Lafarge Companies shall Continuously Operate the SNCR technology during all times of Kiln Operation, except during periods of SNCR technology Malfunction.

23. Within 12 months after the conclusion of the Optimization Phase as it applies to all Kilns identified in Paragraph 22, the Lafarge Companies shall achieve and maintain compliance with the Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit for NO_x of 4.81 lbs./Ton of clinker.

24. The Lafarge Companies shall comply with the Appendix (Control Technology Demonstration Requirements) in setting a 30-Day Rolling Average Emission Limit for NO_x applicable to each Fredonia Kiln. Within 30 Days after the establishment of a 30-Day Rolling Average Emission Limit for NO_x at Fredonia Kilns 1 or 2 under the Appendix, the Lafarge Companies shall achieve and maintain compliance with the 30-Day Rolling Average Emission Limit for NO_x at the respective Kiln.

Whitehall

25. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall have installed and Commenced Continuous Operation of the SNCR technology specified in the table below at Whitehall Kiln 2 and Whitehall Kiln 3 at the Whitehall Facility by the dates specified below:

Kiln	Control Technology	Date of Installation and Commencement of Continuous Operation	30-Day Rolling Average Emission Limits (lbs. NO_x /Ton clinker)	Facility-Wide 12-Month Rolling Average Emission Limit (lbs. NO_x /Ton clinker)
Kiln 2	SNCR	1/1/2011	2.58	2.03
Kiln 3	SNCR	2/1/2011	2.92	

Upon installation of the SNCR technology, the Lafarge Companies shall Continuously Operate the SNCR technology during all times of Kiln Operation, except during periods of SNCR technology Malfunction.

26. Within 14 months after the date by which the Lafarge Companies are required to Commence Continuous Operation of the Control Technology at the first Kiln identified in Paragraph 25, the Lafarge Companies shall achieve and maintain compliance with a Facility-Wide 12-Month Rolling Average Emission Limit for NO_x of 2.03 lbs./Ton of clinker.

27. Within 90 Days after the date by which the Lafarge Companies are required to Commence Continuous Operation of the SNCR technology at each Kilns identified in Paragraph 25, the Lafarge Companies shall achieve and maintain compliance with the 30-Day Rolling Average Emission Limit for NO_x at that Kiln specified in Paragraph 25.

Paulding

28. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall have installed and Commenced Continuous Operation of the SNCR technology specified in the table below at Paulding Kiln 1 and Paulding Kiln 2 at the Paulding Facility in the order selected by the Lafarge Companies by the dates specified below:

Kiln	Control Technology	Date of Installation and Commencement of Continuous Operation	30-Day Rolling Average Emission Limits (lbs. NO_x /Ton of clinker)	Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit (lbs. NO_x /Ton of clinker)
1st Selected Kiln	SNCR	11/1/2011	*See* Appendix	5.24
2nd Selected Kiln	SNCR	12/1/2011	*See* Appendix	

Upon installation of the SNCR technology, the Lafarge Companies shall Continuously Operate the SNCR technology during all times of Kiln Operation, except during periods of SNCR technology Malfunction.

29. Within 12 months after the conclusion of the Optimization Phase as it applies to all Kilns identified in Paragraph 28, the Lafarge Companies shall achieve and maintain compliance with the Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit for NO_x of 5.24 lbs./Ton of clinker.

30. The Lafarge Companies shall comply with Appendix (Control Technology Demonstration Requirements) in setting a 30-Day Rolling Average Emission Limit for NO_x applicable to each Paulding Kiln. Within 30 Days after the establishment of a 30-Day Rolling Average Emission Limit for NO_x at Paulding Kiln 1 or 2 under Appendix, the Lafarge Companies shall achieve and maintain compliance with the 30-Day Rolling Average Emission Limit for NO_x at the respective Kiln.

Seattle

31. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall have installed and Commenced Continuous Operation of the SNCR technology at Seattle Kiln 1 at the Seattle Facility by the date specified below:

Kiln	Control Technology	Date of Installation and Commencement of Continuous Operation	30-Day Rolling Average Emission Limit (lbs. NO_x /Ton of clinker)	Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit (lbs. NO_x /Ton of clinker)
1	SNCR	2/1/2011	*See* Appendix	8.43

Upon installation of the SNCR technology, the Lafarge Companies shall Continuously Operate the SNCR technology during all times of Kiln Operation, except during periods of SNCR technology Malfunction.

32. Within 12 months after the conclusion of the Optimization Phase as it applies to the Kiln identified in Paragraph 31, the Lafarge Companies shall achieve and maintain compliance with the Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit for NO_x of 8.43 lbs./Ton of clinker.

33. The Lafarge Companies shall comply with the Appendix (Control Technology Demonstration Requirements) in setting a 30-Day Rolling Average Emission Limit for NO_x

applicable to Seattle Kiln 1. Within 30 Days after the establishment of a 30-Day Rolling Average Emission Limit for NO_x at Seattle Kiln 1 under the Appendix, the Lafarge Companies shall achieve and maintain compliance with the 30-Day Rolling Average Emission Limit for NO_x at Seattle Kiln 1.

Joppa

34. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall have installed and Commenced Continuous Operation of SCR technology on Joppa Kiln 1 at the Joppa Facility by the date specified below:

Kiln	Control Technology	Date of Installation and Commencement of Continuous Operation	30-Day Rolling Average Emission Limit (lbs. NO_x /Ton of clinker)
1	SCR	7/31/2013	*See* Appendix

Upon installation of the SCR technology, the Lafarge Companies shall Continuously Operate the SCR technology during all times of Kiln Operation, except during periods of SCR technology Malfunction. From January 1, 2011 through July 31, 2013 or until 180 Days following first introduction of raw material in Joppa Kiln 3 pursuant to Illinois Environmental Protection Agency Permit # 05100026 (issued July 6, 2007), whichever is earlier, the Lafarge Companies shall achieve and maintain compliance with an interim Facility-Wide 12-Month Rolling Average Tonnage Limit for NO_x of 3,500 tons per year.

35. The Lafarge Companies shall comply with the Appendix (Control Technology Demonstration Requirements) in setting a 30-Day Rolling Average Emission Limit for NO_x applicable to Joppa Kiln 1. Within 30 Days after the establishment of a 30-Day Rolling Average Emission Limit for NO_x at Joppa Kiln 1 under the Appendix, the Lafarge Companies shall

achieve and maintain compliance with the 30-Day Rolling Average Emission Limit for NO_x at Joppa Kiln 1.

36. Until such time as the Lafarge Companies are required to comply with a 30-Day Rolling Average Emission Limit for NO_x at Joppa Kiln 1 as established under Paragraph 34, the Lafarge Companies shall comply with such requirements of Illinois Environmental Protection Agency Permit # 05100026 (issued July 6, 2007), applicable to NO_x emissions at Joppa Kiln 1.

37. If the Lafarge Companies Retire Joppa Kiln 1 prior to the date by which the Lafarge Companies are required to install and Commence Continuous Operation of the SCR technology at Joppa Kiln 1, then the Lafarge Companies shall provide written notice of such Retirement to U.S. EPA and the Affected State pursuant to Section XIX of this Consent Decree (Notices) within 30 Days prior to such Retirement, and in such notice shall propose an alternative Kiln at which it shall install and Commence Continuous Operation of SCR technology and a schedule for such installation and Commencement of Continuous Operation. U.S. EPA and the Affected State shall review the written submission pursuant to Section XI of this Consent Decree (Review and Approval of Submittals). The Lafarge Companies shall thereafter install and Commence Continuous Operation of SCR technology at the alternative Kiln and comply with the requirements of the Appendix in accordance with U.S. EPA's and the Affected State's review and approval.

Sugar Creek

38. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall have Commenced Continuous Operation of the SNCR technology specified in the table below at Sugar Creek Kiln 3 at the Sugar Creek Facility by the date specified below:

Kiln	Control Technology	Date of Commencement of Continuous Operation	30-Day Rolling Average Emission Limit (lbs. NO_x /Ton of clinker)	Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit (lbs. NO_x /Ton of clinker)
3	SNCR	7/1/2010	*See* Appendix	3.70

39. Within 12 months after the conclusion of the Optimization Phase as it applies to the Kiln identified in Paragraph 38, the Lafarge Companies shall achieve and maintain compliance with the Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit for NO_x of 3.70 lbs./Ton of clinker.

40. The Lafarge Companies shall comply with the Appendix (Control Technology Demonstration Requirements) in setting a 30-Day Rolling Average Emission Limit for NO_x applicable to Sugar Creek Kiln 3. Within 30 Days after the establishment of a 30-Day Rolling Average Emission Limit for NO_x at the Sugar Creek Kiln under the Appendix, the Lafarge Companies shall achieve and maintain compliance with the 30-Day Rolling Average Emission Limit for NO_x at Sugar Creek Kiln 3.

Tulsa

41. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall have installed and Commenced Continuous Operation of the SNCR technology specified in the table below at Tulsa Kiln 1 and Tulsa Kiln 2 at the Tulsa Facility by the dates specified below:

Kiln	Control Technology	Date of Installation and Commencement of Continuous Operation	30-Day Rolling Average Emission Limits (lbs. NO_x /Ton of clinker)
Kiln 1	SNCR	11/1/2011	*See* Appendix
Kiln 2	SNCR	12/1/2011	*See* Appendix

Upon installation of the SNCR technology, the Lafarge Companies shall Continuously Operate the SNCR technology during all times of Kiln Operation, except during periods of SNCR technology Malfunction.

42. The Lafarge Companies shall comply with the Appendix (Control Technology Demonstration Requirements) in setting a 30-Day Rolling Average Emission Limit for NO_x applicable to each Tulsa Kiln. Within 30 Days after the establishment of a 30-Day Rolling Average Emission Limit for NO_x at Tulsa Kilns 1 and 2 under the Appendix, the Lafarge Companies shall achieve and maintain compliance with the 30-Day Rolling Average Emission Limit for NO_x at the respective Kiln.

Roberta

43. Upon and after the Effective Date of this Consent Decree, the Lafarge Companies shall achieve and maintain compliance with a 30-Day Rolling Average Emission Limit for NO_x of 2.4 lbs/Ton of clinker at Roberta Kiln 5.

Harleyville

44. The Lafarge Companies shall comply with such requirements of Permit Number 0900-0004-ER-R2, issued by the South Carolina Department of Health and Environmental Control on December 14, 2007, applicable to NO_x emissions at Harleyville Kiln 1 at the Harleyville Facility.

B. NO_x Continuous Emission Monitoring Systems

45. At each Kiln identified in Paragraph 7.z of this Decree (except for Joppa Kiln 3), the Lafarge Companies shall install and make operational within 12 months of the Effective Date a NO_x continuous emissions monitoring system (CEMS) at each stack which collects emissions from such Kiln (or Kilns, in the case of Ravena) in accordance with the requirements of 40 C.F.R. Part 60.

46. Except during CEMS breakdowns, repairs, calibration checks, and zero span adjustments, the CEMS required pursuant to Paragraph 45 shall be operated at all times during Kiln Operation. Each such CEMS shall be used at each Kiln to demonstrate compliance with the NO_x Emission Limits established in Section V.A (NO_x Control Technology, Emission Limits, and Tonnage Limits) and the Appendix (Control Technology Demonstration Requirements), as applicable, of this Consent Decree.

47. Each NO_x CEMS required pursuant to Paragraph 45 shall monitor and record the applicable NO_x emission rate from each Kiln stack in units of lbs of NO_x per Ton of clinker produced at such Kiln and shall be installed, certified, calibrated, maintained, and operated in accordance with the applicable requirements of 40 C.F.R. Part 60.

48. For purposes of this Consent Decree, all emissions of NO_x shall be measured by CEMS. During any time when CEMs are inoperable and otherwise not measuring emissions of NO_x from any Kiln, the Lafarge Companies shall apply the missing data substitution procedures used by the Affected State or the missing data substitution procedures in 40 C.F.R. Part 75, Subpart D, whichever is deemed appropriate by the Affected State.

VI. SO_2 CONTROL TECHNOLOGY, EMISSION LIMITS, TONNAGE LIMITS, AND MONITORING REQUIREMENTS

A. SO_2 Control Technology, Emission Limits, and Tonnage Limits.

49. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge

Companies shall install the SO_2 Control Technology and comply with the Emission Limits for the specific Facilities and Kilns within their system according to Paragraphs 49 through 77. The Lafarge Companies shall Continuously Operate each SO_2 Control Technology as applicable to each Kiln at all times of Kiln Operation, except for periods of Malfunction of the SO_2 Control Technology. Compliance with any requirements of this Section VI relating to any specific Facility or Kiln shall not be required if the Lafarge Companies Retire any such Facility or Kiln prior to any date for compliance. If one or more Kilns at a Facility is in Temporary Cessation, then the following provisions shall apply in addition to any other requirements in this Consent Decree:

a. The Lafarge Companies shall comply with the applicable Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit at all other Kilns not in Temporary Cessation at the Facility within 12 months of the date on which the last Optimization Phase was concluded (as determined by U.S. EPA and the Affected State) at a Kiln not in Temporary Cessation at the Facility.

b. The Lafarge Companies shall comply with the applicable Facility-Wide 12-Month Rolling Average Emission Limit and Facility-Wide 12-Month Rolling Tonnage Limit at all other Kilns not in Temporary Cessation on the dates required in this Section VI (SO_2 Control Technology, Emission Limits, Tonnage Limits and Monitoring Requirements).

Alpena

50. By January 1, 2011, the Lafarge Companies shall achieve and maintain compliance with an interim Facility-Wide 12-Month Rolling Tonnage Limit for SO_2 of 13,100 tons per year.

51. Control Technology Retrofit Option.

a. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall have installed and Commenced Continuous Operation of DAA or Wet FGD technology in the table specified below on individual Kilns in the order selected by the Lafarge Companies within each specified Kiln Group ("KG") at the Alpena Facility by the dates specified below:

Kiln	Control Technology	Date of Installation and Commencement of Continuous Operation	30-Day Rolling Average Emission Limits	Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit (lbs. SO_2 /Ton of clinker)
1st Kiln in KG5	DAA	10/1/2011	*See* Appendix	3.68
2nd Kiln in KG5	DAA	11/1/2011	*See* Appendix	
3rd Kiln in KG5	DAA	12/1/2011	*See* Appendix	
1st Kiln in KG6	Wet FGD	1/1/2014	*See* Appendix	
2nd Kiln in KG6	Wet FGD	3/1/2014	*See* Appendix	

b. Upon installation of the SO_2 Control Technology, the Lafarge Companies shall Continuously Operate the SO_2 Control Technology during all times of Kiln Operation, except during periods of SO_2 Control Technology Malfunction.

c. Lafarge shall design each Wet FGD to be installed at Alpena Kilns 22 and 23 (KG6) to achieve a removal efficiency for SO_2 of no less than 90%.

d. If the Lafarge Companies elect not to Retire and Replace any Alpena Kiln in accordance with Section VIII (Election to Retire and Replace Kilns), then:

   i. Within 12 months after the conclusion of the Optimization Phase as it applies to Kilns 19, 20, and 21 (KG5) identified in Paragraphs 51 and 7.z(1), the Lafarge Companies shall achieve and maintain compliance with the Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit for SO_2 of 3.68 lbs./Ton of clinker at Kilns 19, 20, and 21 (KG5), or, alternatively, at those Kilns the Lafarge Companies have elected not to Retire and Replace;

   ii. Within 12 months after the conclusion of the Optimization Phase as it applies to Kilns 22 and 23 (KG6) identified in Paragraphs 51 and 7.z(1), the Lafarge Companies shall achieve and maintain compliance with the Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit for SO_2 of 3.68 lbs./Ton of clinker at Kilns 19, 20, 21, 22, and 23 (KG5 and KG6), or, alternatively, at those Kilns the Lafarge Companies have elected not to Retire and Replace.

e. The Lafarge Companies shall comply with the Appendix (Control Technology Demonstration Requirements) in setting a 30-Day Rolling Average Emission Limit for SO_2 applicable to each Alpena Kiln that the Lafarge Companies have not otherwise elected to Retire and/or Replace pursuant to Section VIII (Election to Retire and Replace Kilns). Within 30 Days after the establishment of a 30-Day

Rolling Average Emission Limit for SO_2 under the Appendix at any Alpena Kiln that the Lafarge Companies have not otherwise elected to Retire or Replace, the Lafarge Companies achieve and maintain compliance with the 30-Day Rolling Average Emission Limit for SO_2 at the respective Kiln.

52. Kiln Replacement Option. If the Lafarge Companies elect to Retire and Replace any Alpena Kiln in accordance with Section VIII (Election to Retire and Replace Kilns), then Paragraph 51 (Control Technology Retrofit Option) shall not apply to that Kiln. Instead, the Lafarge Companies shall:

a. Within 180 Days following the Date of Lodging of this Consent Decree, submit an application addressing all applicable requirements under the Clean Air Act and the Michigan SIP for a permit to install any Replacement Kiln(s) at Alpena and thereafter take all other actions necessary to obtain such permits or approvals after filing the applications including, but not limited to, responding to reasonable requests for additional information by the permitting authority in a timely fashion, and conducting any environmental or other assessment lawfully required by the permitting authority;

b. Submit written notice to U.S. EPA and the State of Michigan pursuant to Section XIX (Notices) within 10 Days after the date on which Lafarge has commenced construction of the Replacement Kiln(s), stating the date on which such construction commenced;

c. Complete construction of the Replacement Kiln(s) within 42 months of the date on which the Lafarge Companies commence construction of the Replacement Kiln(s), provided that if the Lafarge Companies fail to commence construction of

any Replacement Kilns by January 1, 2012 or within 12 months of permit issuance pursuant to Paragraph 52.a., whichever is earlier, then, in addition to any other remedies available to the United States or the State of Michigan under this Consent Decree or other applicable law, the Lafarge Companies shall either:

i. Install and Commence Continuous Operation of the Control Technology by January 1, 2015 or within 48 months of permit issuance pursuant to Paragraph 52.a, whichever is earlier, and thereafter comply with the Control Technology and other applicable requirements of Paragraph 50 as to the existing Alpena Kilns; or

ii. Retire the Kiln(s) by July 1, 2012 or within 18 months of permit issuance pursuant to Paragraph 52.a, whichever is earlier;

d. Commence Kiln Operation of the Replacement Kiln(s) within 42 months of the date on which the Lafarge Companies commence construction of the Replacement Kiln, or January 1, 2015, whichever is earlier;

e. Retire the Replaced Kiln(s) within 180 Days of commencement of Kiln Operation of the Replacement Kiln(s);

f. Within 42 months of the date on which the Lafarge Companies commence construction of the Replacement Kiln, or January 1, 2015, whichever is earlier, install and Commence Continuous Operation of Wet FGD technology designed to achieve a Control Efficiency for SO_2 of 95% at each Replacement Kiln, as compared to an identical Replacement Kiln without Wet FGD technology, at the Alpena Facility or, subject to review and approval by U.S. EPA and the Affected State pursuant to Section XI (Review and Approval of Submittals), equivalent

alternative SO_2 Control Technology that may include but shall not be limited to kiln system design, which is individually or collectively designed to achieve a Control Efficiency for SO_2 equivalent to that of Wet FGD technology designed to achieve a Control Efficiency for SO_2 of 95% at each Replacement Kiln(s) at the Alpena Facility; and

g. Within 180 Days after the Lafarge Companies have commenced Kiln Operation of the applicable Replacement Kiln at Alpena, achieve and maintain compliance with a 30-Day Rolling Average Emission Limit for SO_2 of 1.4 lb/Ton of clinker, or the New Source Performance Standard for SO_2 for Portland Cement Manufacturing Facilities promulgated pursuant to Section 111 of the Act, whichever is more stringent, at each Replacement Kiln.

53. Subject to Paragraph 54 below, within 54 months of the date on which the Lafarge Companies commence construction of any Replacement Kiln(s), or January 1, 2016, whichever is earlier, the Lafarge Companies shall, at Alpena, achieve and maintain compliance with a Facility-Wide 12-Month Rolling Tonnage Limit for SO_2 of 5,762 Tons emitted per 12-month period.

54. Notification Regarding Alpena Replacement Kiln Compliance Date. If a governmental entity's failure to act upon a timely-submitted or supplemented permit or approval application submitted pursuant to Paragraph 52.a or the action of any third-party challenging the issuance of such permit operates to delay the issuance or effectiveness of a final valid permit or approval, thereby impairing the Lafarge Companies' ability to timely satisfy the implementation schedule requirements of Paragraph 52, the Lafarge Companies shall notify, in writing, the U.S. EPA and the State of Michigan of any such delay as soon as the Lafarge Companies reasonably

conclude that the delay could affect their ability to comply with the implementation schedule requirements of Paragraph 52.

a. If the Lafarge Companies provide the notification required under this Paragraph 54, the Lafarge Companies shall propose in such notification, for approval by the U.S. EPA and the State of Michigan pursuant to Section XXII (Modification), a modification to the applicable schedule of implementation setting out the time necessary to comply after the permit or approval has been finalized and becomes effective, taking into consideration necessary periods for final contracting and delivery of equipment. In addition, the Lafarge Companies shall propose, pursuant to Section XI (Review and Approval of Submittals), interim measures (taking into consideration the anticipated time period such measures would be in use or operation) capable of reducing emissions of SO_2 at the existing Alpena Kilns to be Replaced pursuant to Section VIII (Election to Retire and Replace Kilns) of this Consent Decree. Upon approval by U.S. EPA and the State of Michigan, such interim measures shall be implemented by no later than January 1, 2015 and shall continue until the Alpena Kilns to be Replaced are Retired. However, nothing in this subparagraph shall obligate the United States or the State of Michigan to modify the schedule for implementation if a final valid permit or approval necessary for the construction of any Replacement Kiln(s) is denied by the permitting authority (including the conclusion of any administrative or judicial appeals) or has not issued or become effective by July 1, 2012. Within three years of any such denial by the permitting authority (including the conclusion of any administrative or judicial appeals) or by July 1, 2015,

whichever is earlier, the Lafarge Companies shall install and Commence Continuous Operation of the Control Technology and thereafter comply with the Emission Limits and other applicable requirements of Paragraph 51 as to the existing Alpena Kilns which were to be Replaced. Alternatively, the Lafarge Companies may elect to Retire the Kiln(s); provided, such Retirement shall be completed within twelve (12) months of any such denial by the permitting authority (including the conclusion of any administrative or judicial appeals) or by July 1, 2013, whichever is earlier.

b. Stipulated Penalties Inapplicable. If the Lafarge Companies timely provide the notification required under this Paragraph 54, stipulated penalties shall not accrue nor be due and owing during any period between an originally-scheduled implementation date and an approved modification to such date; provided, however, that if the U.S. EPA and the State of Michigan do not approve a modification to a date or dates then: (i) U.S. EPA and the State of Michigan will retain the right to seek stipulated penalties; and (ii) the Lafarge Companies will retain the right to dispute any demand for stipulated penalties, pursuant to Section XV (Dispute Resolution).

c. Force Majeure Inapplicable. The failure of a governmental entity to issue a final valid permit or approval or the action of any third-party challenging the issuance of such permit that operates to delay the issuance or effectiveness of a final valid permit or approval issued pursuant to Paragraph 52.a necessary for the construction or operation of any Replacement Kiln(s) shall not constitute Force

Majeure events triggering the requirements of Section XIV (Force Majeure); instead, the provisions of this Paragraph 54 shall apply.

Ravena

55. By January 1, 2011, the Lafarge Companies shall achieve and maintain compliance with an interim Facility-Wide 12-Month Rolling Tonnage Limit for SO_2 of 11,500 tons.

56. Control Technology Retrofit Option.

a. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall have installed and shall Commence Continuous Operation of Wet FGD technology in the table specified below at Ravena Kiln 1 and Ravena Kiln 2 at the Ravena Facility by the date specified below:

Kiln	Control Technology	Date of Installation and Commencement of Continuous Operation	30-Day Rolling Average Emission Limit (lbs. SO_2/Ton of clinker)	Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit (lbs. SO_2/Ton of clinker)
1	Wet FGD	3/1/2014	*See* Appendix	2.62
2				

b. Upon installation of the Wet FGD technology, the Lafarge Companies shall Continuously Operate the Wet FGD technology during all times of Kiln Operation, except during periods of Wet FGD technology Malfunction.

c. The Lafarge Companies shall design the Wet FGD or Wet FGDs to be installed at Ravena Kilns 1 and 2 to achieve a removal efficiency for SO_2 of no less than 90%.

d. If the Lafarge Companies elect not to Retire and Replace any Ravena Kiln in accordance with Section VIII (Election to Retire and Replace Kilns), then within 12 months after the conclusion of the Optimization Phase as it applies to all Kilns

identified in Paragraphs 56 and 7.z(2), the Lafarge Companies shall achieve and maintain compliance with the Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit for SO_2 of 2.62 lbs./Ton of clinker, or, alternatively, at any Kiln that the Lafarge Companies have elected not to Retire and Replace.

e. The Lafarge Companies shall comply with the Appendix (Control Technology Demonstration Requirements) in setting a 30-Day Rolling Average Emission Limit for SO_2 applicable to each Ravena Kiln that the Lafarge Companies have not otherwise elected to Retire and/or Replace pursuant to Section VIII (Election to Retire and Replace Kilns). Within 30 Days after the establishment of a 30-Day Rolling Average Emission Limit for SO_2 under the Appendix at all Ravena Kilns that the Lafarge Companies have not otherwise elected to Retire or Replace, the Lafarge Companies shall achieve and maintain compliance with the 30-Day Rolling Average Emission Limit for SO_2 at the respective Kiln.

57. Kiln Replacement Option. If the Lafarge Companies elect to Retire and Replace any Ravena Kiln in accordance with Section VIII (Election to Retire and Replace Kilns), then Paragraph 56 (Control Technology Retrofit Option) shall not apply to that Kiln. Instead, the Lafarge Companies shall, with respect to each Replacement Kiln:

a. Within 30 Days following the Date of Lodging of this Consent Decree, submit an application for an air pollution control permit, draft scope and full environmental assessment form as required in 6 NYCRR 617.6(a)(2) and 6 NYCRR 621.4(g)(1) for any Replacement Kiln(s), and a preconstruction permit as may be required by 40 C.F.R. 52.21, and thereafter take all other actions necessary to obtain such

permits or approvals after filing the applications including, but not limited to, responding to reasonable requests for additional information by the permitting authority in a timely fashion, and conducting any environmental or other assessment lawfully required by the permitting authority;

b. Submit written notice to U.S. EPA and the State of New York pursuant to Section XIX (Notices) within 10 Days after the date on which Lafarge has commenced construction of the Replacement Kiln(s), stating the date on which such construction commenced;

c. Complete construction of the Replacement Kiln(s) within 42 months of the date on which the Lafarge Companies commence construction of the Replacement Kiln(s), provided that if the Lafarge Companies fail to commence construction of any Replacement Kilns by January 1, 2012 or within 12 months of permit issuance pursuant to Paragraph 57.a., whichever is earlier, then, in addition to any other remedies available to the United States or the State of New York under this Consent Decree or other applicable law, the Lafarge Companies shall either:

   i. Install and Commence Continuous Operation of the Control Technology by January 1, 2015 or within 48 months of permit issuance pursuant to Paragraph 57.a., whichever is earlier, and thereafter comply with the Control Technology and other applicable requirements of Paragraph 56 as to the existing Ravena Kilns; or

   ii. Retire the Kiln(s) by July 1, 2012 or within 18 months of permit issuance pursuant to Paragraph 57.a, whichever is earlier.

d. Commence Kiln Operation of the Replacement Kiln(s) within 42 months of the date on which the Lafarge Companies commence construction of the Replacement Kiln, or January 1, 2015, whichever is earlier;

e. Retire the Replaced Kiln(s) within 180 Days of commencement of Kiln Operation of the Replacement Kiln(s);

f. Within 42 months of the date on which the Lafarge Companies commence construction of the Replacement Kiln, or January 1, 2015, whichever is earlier, install and Commence Continuous Operation of Wet FGD technology designed to achieve a Control Efficiency for SO_2 of 95% at each Replacement Kiln, as compared to an identical Replacement Kiln without Wet FGD technology, at the Ravena Facilities or, subject to review and approval by U.S. EPA and the Affected State pursuant to Section XI (Review and Approval of Submittals), equivalent alternative SO_2 Control Technology that may include but shall not be limited to kiln system design, which is individually or collectively designed to achieve a Control Efficiency for SO_2 equivalent to that of Wet FGD technology designed to achieve a Control Efficiency for SO_2 of 95% at each Replacement Kiln(s) at the Ravena Facilities; and

g. Within 180 Days after the Lafarge Companies have commenced Kiln Operation of any Replacement Kiln at Ravena, achieve and maintain compliance with a 30-Day Rolling Average Emission Limit for SO_2 of 1.4 lb/Ton of clinker, or the applicable New Source Performance Standard for SO_2 for Portland Cement Manufacturing Facilities promulgated pursuant to Section 111 of the Act, whichever is more stringent, at each Replacement Kiln.

58. Subject to Paragraph 59 below, within 54 months of the date on which the Lafarge Companies commence construction of any Replacement Kiln(s), or January 1, 2016, whichever is earlier, the Lafarge Companies shall, at Ravena, achieve and maintain compliance with a Facility-Wide 12-Month Rolling Tonnage Limit for SO_2 of 2,462 Tons emitted per 12-month period.

59. Notification Regarding Ravena Replacement Kiln Compliance Date. If a governmental entity's failure to act upon a timely-submitted or supplemented permit or approval application submitted pursuant to Paragraph 57.a or the action of any third-party challenging the issuance of such permit operates to delay the issuance or effectiveness of a final valid permit or approval, thereby impairing the Lafarge Companies' ability to timely satisfy a compliance obligation according to the implementation schedule requirements of Paragraph 57, the Lafarge Companies shall notify, in writing, the U.S. EPA and the State of New York of any such delay as soon as the Lafarge Companies reasonably conclude that the delay could affect their ability to comply with the implementation schedule set forth in Paragraph 57.

a. If the Lafarge Companies provide the notification required under this Paragraph 59, the Lafarge Companies shall propose in such notification, for approval by the U.S. EPA and the State of New York pursuant to Section XXII (Modification), a modification to the applicable schedule of implementation setting out the time necessary to comply after the permit or approval has been finalized and becomes effective, taking into consideration necessary periods for final contracting and delivery of equipment. In addition, the Lafarge Companies shall propose, pursuant to Section XI (Review and Approval of Submittals), interim measures (taking into consideration the anticipated time period such measures would be in

use or operation) capable of reducing emissions of SO_2 at the existing Ravena Kilns to be Replaced pursuant to Section VIII (Election to Retire and Replace Kilns) of this Consent Decree. Upon approval by U.S. EPA and the State of New York, such interim measures shall be implemented by no later than January 1, 2015 and shall continue until the Ravena Kilns to be Replaced are Retired. However, nothing in this subparagraph shall obligate the United States or the State of New York to modify the schedule for implementation if a final valid permit or approval necessary for the construction of any Replacement Kiln(s) is denied by the permitting authority (including the conclusion of any administrative or judicial appeals) or has not issued or become effective by July 1, 2012. Within three years of any such denial by the permitting authority (including the conclusion of any administrative or judicial appeals) or by July 1, 2015, whichever is earlier, the Lafarge Companies shall install and Commence Continuous Operation of the Control Technology and thereafter comply with the Emission Limits and other applicable requirements of Paragraph 56 as to the existing Ravena Kilns which were to be Replaced. Alternatively, the Lafarge Companies may elect to Retire the Kiln(s); provided, such Retirement shall be completed within twelve (12) months of any such denial by the permitting authority (including the conclusion of any administrative or judicial appeals) or by July 1, 2013, whichever is earlier.

b. Stipulated Penalties Inapplicable. If the Lafarge Companies timely provide the notification required under this Paragraph 59, stipulated penalties shall not accrue nor be due and owing during any period between an originally-scheduled

implementation date and an approved modification to such date; provided, however, that if the U.S. EPA and the State of New York do not approve a modification to a date or dates then: (i) U.S. EPA and the State of New York will retain the right to seek stipulated penalties; and (ii) the Lafarge Companies will retain the right to dispute any demand for stipulated penalties, pursuant to Section XV (Dispute Resolution).

c. Force Majeure Inapplicable. The failure of a governmental entity to issue a final valid permit or approval or the action of any third-party challenging the issuance of such permit that operates to delay the issuance or effectiveness of a final valid permit or approval issued pursuant to Paragraph 57.a necessary for the construction or operation of any Replacement Kiln(s) shall not constitute Force Majeure events triggering the requirements of Section XIV (Force Majeure); instead, the provisions of this Paragraph 59 shall apply.

Fredonia

60. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall have installed and Commenced Continuous Operation of DAA technology in the table specified below at Fredonia Kiln 1 and Fredonia Kiln 2 at the Fredonia Facility in the order selected by the Lafarge Companies by the dates specified below:

Kiln	Control Technology	Date of Installation and Commencement of Continuous Operation	30-Day Rolling Average Emission Limits (lbs. SO_2/Ton of clinker)	Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit (lbs. SO_2/Ton of clinker)
1st Selected Kiln	DAA	10/1/2012	*See* Appendix	6.15
2nd Selected Kiln	DAA	11/1/2012	*See* Appendix	

Upon installation of the DAA technology, the Lafarge Companies shall Continuously Operate the DAA technology during all times of Kiln Operation, except during except for periods of DAA technology Malfunction.

61. Within 12 months after the conclusion of the Optimization Phase as it applies to all Kilns identified in Paragraph 60, the Lafarge Companies shall achieve and maintain compliance with the Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit for SO_2 of 6.15 lbs./Ton of clinker.

62. The Lafarge Companies shall comply with the Appendix (Control Technology Demonstration Requirements) in setting a 30-Day Rolling Average Emission Limit for SO_2 applicable to each Fredonia Kiln. Within 30 Days after the establishment of a 30-Day Rolling Average Emission Limit for SO_2 at Fredonia Kilns 1 or 2 under the Appendix, the Lafarge Companies shall achieve and maintain compliance with the 30-Day Rolling Average Emission Limit for SO_2 at the respective Kiln.

Whitehall

63. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall have installed and Commenced Continuous Operation of the DAA technology

in the table specified below at Whitehall Kiln 2 and Whitehall Kiln 3 at the Whitehall Facility by the dates specified below:

Kiln	Control Technology	Date of Installation and Commencement of Continuous Operation	30-Day Rolling Average Emission Limits (lbs. SO_2/Ton clinker)	Facility-Wide 12-Month Rolling Average Emission Limit (lbs. SO_2/Ton clinker)
Kiln 2	DAA	1/1/2011	4.06	2.59
Kiln 3	DAA	2/1/2011	3.19	

Upon installation of the DAA technology, the Lafarge Companies shall Continuously Operate the DAA technology during all times of Kiln Operation, except during except for periods of DAA technology Malfunction.

64. Within 14 months after the date by which the Lafarge Companies are required to Commence Continuous Operation of the DAA technology at the first Kiln identified in Paragraph 63, the Lafarge Companies shall comply with a Facility-Wide 12-Month Rolling Average Emission Limit for SO_2 of 2.59 lbs./Ton of clinker.

65. Within 90 Days after the date by which the Lafarge Companies are required to Commence Continuous Operation of the DAA technology at each Kiln identified in Paragraph 63, the Lafarge Companies shall comply with the 30-Day Rolling Average Emission Limits for SO_2 at the respective Kiln specified in Paragraph 63.

Paulding

66. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall have installed and Commenced Continuous Operation of DAA technology in the table specified below at Paulding Kiln 1 and Paulding Kiln 2 at the Paulding Facility in the order selected by the Lafarge Companies by the dates specified below:

Kiln	Control Technology	Date of Installation and Commencement of Continuous Operation	30-Day Rolling Average Emission Limit (lbs. SO_2/Ton of clinker)	Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit (lbs. SO_2/Ton of clinker)
1st Selected Kiln	DAA	11/1/2011	*See* Appendix	5.35
2nd Selected Kiln	DAA	12/1/2011	*See* Appendix	

Upon installation of the DAA technology, the Lafarge Companies shall Continuously Operate the DAA technology during all times of Kiln Operation, except during periods of DAA technology Malfunction.

67. Within 12 months after the conclusion of the Optimization Phase as it applies to all Kilns identified in Paragraph 66, the Lafarge Companies shall achieve and maintain compliance with the Demonstration Phase Facility-Wide 12-Month Rolling Average Emission Limit for SO_2 of 5.35 lbs./Ton of clinker.

68. The Lafarge Companies shall comply with the Appendix (Control Technology Demonstration Requirements) in setting a 30-Day Rolling Average Emission Limit for SO_2 applicable to each Paulding Kiln. Within 30 Days after the establishment of a 30-Day Rolling Average Emission Limit for SO_2 at Paulding Kiln 1 or 2 under the Appendix, the Lafarge Companies shall achieve and maintain compliance with the 30-Day Rolling Average Emission Limit for SO_2 at the respective Kiln.

Seattle

69. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall have installed and Commenced Continuous Operation of DAA technology in the table specified below at Seattle Kiln 1 at the Seattle Facility by the date specified below:

Kiln	Control Technology	Date of Installation and Commencement of Continuous Operation	30-Day Rolling Average Emission Limit (lbs. SO_2/Ton of clinker)	Facility-Wide 12-Month Rolling Average Emission Limit (lbs. SO_2/Ton of clinker)
1	DAA	2/1/2011	4.12	2.77

Upon installation of the DAA technology, the Lafarge Companies shall Continuously Operate the DAA technology during all times of Kiln Operation, except during periods of DAA technology Malfunction.

70. Within 14 months after the date by which the Lafarge Companies are required to Commence Continuous Operation of the DAA technology at the Kiln identified in Paragraph 69, the Lafarge Companies shall achieve and maintain compliance with a Facility-Wide 12-Month Rolling Average Emission Limit for SO_2 of 2.77 lbs./Ton of clinker.

71. Within 90 Days after the date by which the Lafarge Companies are required to Commence Continuous Operation of the DAA technology at the Kiln identified in Paragraph 69, the Lafarge Companies shall comply with the 30-Day Rolling Average Emission Limit for SO_2 of 4.12 lbs./Ton of clinker at Seattle Kiln 1.

Joppa

72. The Lafarge Companies shall comply with such requirements of Illinois Environmental Protection Agency Permit # 05100026 (issued July 6, 2007), applicable to SO_2 emissions at Joppa Kiln 1. From January 1, 2011 through July 31, 2013 or until 180 Days following first introduction of raw material in Joppa Kiln 3 pursuant to Illinois Environmental Protection Agency Permit # 05100026 (issued July 6, 2007), whichever is earlier, the Lafarge Companies shall achieve and maintain compliance with an interim Facility-Wide 12-Month Rolling Average Tonnage Limit for SO_2 of 1,757 tons per year.

Tulsa

73. No later than December 1, 2010, the Lafarge Companies shall provide to U.S. EPA and the Oklahoma Department of Environmental Quality, pursuant to Section XIX (Notices), a written report stating daily SO_2 emissions data for the previous six (6) Operating Months collected by the CEMs installed and operated at Tulsa Kilns 1 and 2 pursuant to Section VI.B of this Consent Decree (SO_2 Continuous Emission Monitoring Systems). The written report shall include a statement of whether the Lafarge Companies are capable of achieving a 30-Day Rolling Average Emission Rate for SO_2 of 2.5 lb/Ton of clinker at each Tulsa Kiln without DAA technology, including all periods of Startup, Shut Down, and Malfunction, and an explanation for such statement based upon the CEMs data provided in the written report.

a. If, upon review of the written report pursuant to Section XI of this Consent Decree (Review and Approval of Submittals), U.S. EPA and the Oklahoma Department of Environmental Quality determine that the Lafarge Companies can achieve a 30-Day Rolling Average Emission Limit for SO_2 of 2.5 lb/Ton of clinker at a Tulsa Kiln without DAA technology, then within 30 Days of written notice from U.S. EPA and the Oklahoma Department of Environmental Quality, the Lafarge Companies shall achieve and maintain compliance with a 30-Day Rolling Average Emission Limit for SO_2 of 2.5 lb/Ton of clinker at the respective Tulsa Kiln.

b. If, upon review of the written report pursuant to Section XI of this Consent Decree (Review and Approval of Submittals), U.S. EPA and the Oklahoma Department of Environmental Quality determine that the Lafarge Companies cannot achieve a 30-Day Rolling Average Emission Rate for SO_2 of 2.5 lb/Ton of

clinker at a Tulsa Kiln without DAA technology, then, subject to Section VII (Temporary Cessation of Kiln Operation), within 12 months following U.S. EPA and the Oklahoma Department of Environmental Quality's determination that the Lafarge Companies cannot achieve a 30-Day Rolling Average Emission Rate for SO_2 of 2.5 lb/Ton of clinker at a Tulsa Kiln, the Lafarge Companies shall have installed and Commenced Continuous Operation of DAA technology at the respective Tulsa Kiln. Upon installation of the DAA technology, the Lafarge Companies shall Continuously Operate the DAA technology during all times of Kiln Operation, except for periods of DAA technology Malfunction. The Lafarge Companies shall comply with the Appendix (Control Technology Demonstration Requirements) in setting a 30-Day Rolling Average Emission Limit for SO_2 applicable to the respective Tulsa Kiln. Within 30 Days after the establishment of a 30-Day Rolling Average Emission Limit for SO_2 at the respective Tulsa Kiln under the Appendix, the Lafarge Companies shall achieve and maintain compliance with the 30-Day Rolling Average Emission Limit for SO_2 at the respective Kiln.

Roberta

74. Upon and after the Effective Date, the Lafarge Companies shall achieve and maintain compliance with a 30-Day Rolling Average Emission Limit for SO_2 of 2.2 lbs/Ton of clinker at the Roberta Kiln 5.

Davenport

75. Subject to Section VII (Temporary Cessation of Kiln Operation), the Lafarge Companies shall have installed and Commenced Continuous Operation of the DAA technology

specified in the table below at Davenport Kiln 1 at the Davenport Facility by the date specified below:

Kiln	Control Technology	Date of Installation and Commencement of Continuous Operation	Facility-Wide 12-Month Rolling Tonnage Limit (Tons SO_2/12 month period)
1	DAA	7/1/2010	4,850

Upon installation of the DAA technology, the Lafarge Companies shall thereafter Continuously Operate the DAA technology during all times of Kiln Operation, except during periods of DAA technology Malfunction.

76. Upon and after the Effective Date of this Consent Decree, the Lafarge Companies shall achieve and maintain compliance with the Facility-Wide 12-Month Rolling Tonnage Limit for SO_2 of 4,850 Tons emitted per rolling 12 month period.

Harleyville

77. The Lafarge Companies shall comply with such requirements of Permit Number 0900-0004-EF-R2, issued by the South Carolina Department of Health and Environmental Control on December 14, 2007, as may become applicable relative to SO_2 emissions at Harleyville Kiln 1 at the Harleyville Facility.

B. SO_2 Continuous Emission Monitoring Systems

78. At each Kiln identified in Paragraph 7.z (except for Joppa Kiln 3) of this Decree, the Lafarge Companies shall install and make operational within 12 months of the Effective Date a SO_2 continuous emissions monitoring system (CEMS) at each stack which collects emissions from such Kiln (or Kilns, in the case of Ravena) in accordance with the requirements of 40 C.F.R. Part 60.

79. Except during CEMS breakdowns, repairs, calibration checks, and zero span adjustments, the CEMS required pursuant to Paragraph 78 shall be operated at all times, and shall be used at each Kiln to demonstrate compliance with the SO_2 Emission Limits established in Section VI.A (SO_2 Control Technology, Emission Limits, and Tonnage Limits) and the Appendix (Control Technology Demonstration Requirements), as applicable, of this Consent Decree.

80. Each SO_2 CEMs required pursuant to Paragraph 78 shall monitor and record the applicable SO_2 emission rate from each Kiln stack in units of lbs of SO_2 per Ton of clinker produced at such Kiln and shall be installed, certified, calibrated, maintained, and operated in accordance with the applicable requirements of 40 C.F.R. Part 60.

81. For purposes of this Consent Decree, all emissions of SO_2 shall be measured by CEMS. During any time when CEMs are inoperable and otherwise not measuring emissions of SO_2 from any Kiln, the Lafarge Companies shall apply the missing data substitution procedures used by the Affected State or the missing data substitution procedures in 40 C.F.R. Part 75, Subpart D whichever is deemed appropriate by the Affected State.

VII. TEMPORARY CESSATION OF KILN OPERATION

82. If the Lafarge Companies Temporarily Cease Kiln Operation of any Kiln prior to the date by which the Lafarge Companies are required to install and/or Continuously Operate any Control Technology at that Kiln under Section V (NO_x Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) and/or Section VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements), the Lafarge Companies shall provide written notice within ten (10) Days after such Temporary Cessation, specifying the date

on which such period of Temporary Cessation began. The Lafarge Companies shall provide such written notice pursuant to Section XIX (Notices).

83. If the Lafarge Companies have provided the written notice as required in Paragraph 82, the Lafarge Companies shall not be required to install and Continuously Operate the Control Technology at that Kiln by the date required in Section V (NO_x Control Technology, Emission Limits, Tonnage Limits and Monitoring Requirements) and/or Section VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) of this Consent Decree with respect to that Kiln. However, the Lafarge Companies shall not recommence Kiln Operation after the date required in Section V (NO_x Control Technology, Emission Limits, Tonnage Limits and Monitoring Requirements) and Section VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) of this Consent Decree with respect to that Kiln unless the Lafarge Companies have first installed and Commenced Continuous Operation of the Control Technology required, commenced compliance with all requirements for that Kiln contained in Section V (NO_x Control Technology, Emission Limits, Tonnage Limits and Monitoring Requirements) and/or Section VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) and have provided notice to EPA within 30 Days after recommencing Kiln Operation. If the Lafarge Companies recommence Kiln Operation without installing and Commencing Continuous Operation of the Control Technology required under, and do not commence compliance with all requirements for that Kiln contained in Section V (NO_x Control Technology, Emission Limits, Tonnage Limits and Monitoring Requirements) and/or Section VI (SO_2 Control Technology Emission Limits, Tonnage Limits, and Monitoring Requirements), they shall be liable for stipulated penalties pursuant to Section XIII (Stipulated Penalties).

84. Notwithstanding Paragraph 83, if the Lafarge Companies Temporarily Cease Kiln Operation for twenty-four (24) consecutive months subsequent to the Effective Date of this Consent Decree, prior to recommencing Kiln Operation the Lafarge Companies shall first apply for and obtain applicable permits required under: (1) the PSD provisions of the Act, 42 U.S.C. §§ 7470-7492 and/or the nonattainment NSR provisions of the Act, 42 U.S.C. §§ 7501-7515; or (2) the federally-approved and enforceable SIPs which incorporate and/or implement the federal PSD and/or nonattainment NSR requirements. Periods of Kiln Operation after the date the requirement to install and Commence Continuous Operation of a Control Technology arises in Section V (NO_x Control Technology, Emission Limits, Tonnage Limits and Monitoring Requirements) and/or Section VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) without the required Control Technology installation and Commencement of Continuous Operation shall not interrupt any portion of the twenty-four (24) consecutive month period of Temporary Cessation of Kiln Operation that applies under this paragraph. For the purposes of this Paragraph, such periods of Kiln Operation without the required Control Technology shall be included in the Temporary Cessation of Kiln Operation.

VIII. ELECTION TO RETIRE AND REPLACE KILNS

85. By December 31, 2010, the Lafarge Companies shall provide written notice to U.S. EPA, Director of the Air Enforcement Division, and the Affected States in which the Kilns are located, stating whether the Lafarge Companies intend to Retire and Replace any Kiln at Ravena and Alpena in lieu of retrofitting the Control Technology required under this Consent Decree.

IX. PROHIBITION ON NETTING CREDITS OR OFFSETS FROM REQUIRED CONTROLS

86. Except as provided in Paragraph 87 below, emission reductions resulting from compliance with the requirements of this Consent Decree shall not be considered as a creditable contemporaneous emission decrease for the purpose of obtaining a netting credit under the Clean Air Act's Non-attainment NSR and PSD programs.

87. Notwithstanding Paragraph 86, Lafarge may use any emission decreases of NO_x and SO_2 under this Consent Decree generated from the Retirement of any Alpena Kiln or any Ravena Kiln as creditable decreases for the purpose of obtaining netting credits or offsets for these pollutants under the Clean Air Act's Non-attainment NSR and PSD programs, solely at the respective Facility, for construction of any Replacement Kilns at the Alpena and Ravena Facilities if, as required under this Consent Decree:

a. The Lafarge Companies Retire any Kiln(s) to be Replaced by a new Kiln at Alpena or Ravena;

b. The Lafarge Companies install and Commence Continuous Operation of Wet FGD technology designed to achieve an SO_2 Control Efficiency of 95% at each Replacement Kiln(s) at the Alpena or Ravena Facilities or, subject to review and approval by U.S. EPA and the Affected State pursuant to Section XI (Review and Approval of Submittals), equivalent alternative SO_2 Control Technology that may include but shall not be limited to kiln system design, which is individually or collectively designed to achieve an equivalent Control Efficiency at each Replacement Kiln(s) at the Alpena or Ravena Facilities;

c. The Lafarge Companies install and Commence Continuous Operation of one SNCR at each Replacement Kiln at the Alpena or Ravena Facilities;

d. Within 180 Days after the Lafarge Companies have commenced operation of any Replacement Kiln(s) at Alpena or Ravena, the Lafarge Companies achieve compliance with the 30-Day Rolling Average Emission Limit for SO_2 of 1.4 lb/Ton of clinker at the Replacement Kiln, or the applicable New Source Performance Standard for SO_2 for Portland Cement Manufacturing Facilities promulgated pursuant to Section 111 of the Act, whichever is more stringent, at each Replacement Kiln;

e. Within 180 Days after the Lafarge Companies have commenced operation of any Replacement Kiln(s) at Alpena or Ravena, the Lafarge Companies achieve compliance with the 30-Day Rolling Average Emission Limit for NO_x of 2.1 lb/Ton of clinker at that Alpena Replacement Kiln and 2.3 lb/Ton of clinker at that Ravena Replacement Kiln, or applicable New Source Performance Standard for NO_x for Portland Cement Manufacturing Facilities promulgated pursuant to Section 111 of the Act, whichever is more stringent, at the Replacement Kiln;

f. The permits or approvals for any Replacement Kilns at the Alpena or Ravena Facilities are consistent with the requirements and limitations of this Paragraph; and

g. The Lafarge Companies comply with all other requirements under Sections V (NO_x Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements), VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements), VII (Temporary Cessation of Kiln Operation) and VIII (Election to Retire and Replace Kilns) of this Consent Decree applicable to the Ravena or Alpena Facilities.

88. The limitations on the generation and use of netting credits or offsets set forth in Paragraphs 86 do not apply to emission reductions achieved by the Lafarge Companies that are surplus to those required under this Consent Decree ("surplus emission reductions"). For purposes of this Paragraph, surplus emission reductions are the reduction over and above those required under this Consent Decree that result from the Lafarge Companies' compliance with federally enforceable emissions limits that are more stringent than limits imposed under this Consent Decree or from the Lafarge Companies' compliance with emissions limits otherwise required under applicable provisions of the Clean Air Act or with an applicable SIP that contains more stringent limits than those imposed under this Consent Decree.

89. Nothing in this Consent Decree is intended to preclude the emission reductions generated under this Consent Decree from being considered by U.S. EPA or a State as creditable contemporaneous emission decreases for the purpose of attainment demonstrations submitted pursuant to § 110 of the Act, 42 U.S.C. § 7410, or in determining impacts on NAAQS, PSD increments, or air quality-related values, including visibility in a Class I area.

90. The Lafarge Companies shall, within 30 Days after the Effective Date, apply to the State of Georgia for and upon issuance retire fifty (50) NO_x Emission Reduction Credits pursuant to Georgia's Emission Reduction Credit Rule Ga. Comp. R. & Regs. R., 391-3-1-.03(13) and the Clean Air Act. Lafarge shall thereafter provide notice to U.S. EPA of such retirement within 30 Days following receipt from the State of Georgia of confirmation of the retirement.

X. PERMITS

91. Where any compliance obligation under this Consent Decree requires the Lafarge Companies to obtain a federal, State, or local permit or approval the Lafarge Companies shall submit a timely and complete application for such permit or approval and take all other actions

necessary to obtain all such permits or approvals, allowing for all legally required processing and review including requests for additional information by the permitting or approval authority. Except as provided for in Paragraphs 16, 21, 54, and 59, the Lafarge Companies may seek relief under the provisions of Section XIV of this Consent Decree (Force Majeure) for any delay in the performance of any obligation under this Consent Decree resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if the Lafarge Companies have submitted timely and complete applications and have taken all other actions necessary to obtain all such permits or approvals and responses to requests for additional information.

92. In addition to having first obtained any required preconstruction permits or other approvals pursuant to Paragraph 91, the Lafarge Companies, within 12 months after the Commencement of operation of each Control Technology required to be installed, upgraded, or operated on a Kiln under this Consent Decree, shall apply to the Affected State to include the requirements and limitations enumerated in this Consent Decree in a construction permit or other permit or approval (other than a Title V permit) which is federally enforceable, issued under the SIP of the Affected State, and issued under authority independent of the Affected State's authority to issue Title V permits. The permit or approval shall require compliance with any applicable 30-Day Rolling Average Emission Limit, Facility-Wide 12-Month Rolling Average Emission Limit, and any applicable Facility-Wide 12-Month Rolling Tonnage Limit, and any monitoring requirements, including those in Sections V.B and VI.B. of this Decree. Following submission of the application for the permit or approval, the Lafarge Companies shall cooperate with the appropriate permitting authority by promptly submitting all information that such permitting authority seeks following its receipt of the application for the permit.

93. Upon issuance of a permit by the Affected State, or in conjunction with the issuance of such permit, the Lafarge Companies shall file any applications necessary to incorporate the requirements of the permit into the Title V operating permit for the relevant Facility. The Lafarge Companies shall not challenge the inclusion in any such permit of the Emission Limits and Tonnage Limits expressly prescribed in this Consent Decree (including, where applicable, 30-Day Rolling Average Emission Limits determined in accordance with the Appendix), but nothing in this Consent Decree is intended nor shall it be construed to require the establishment of Emission Limits or Tonnage Limits other than those Emission Limits and Tonnage Limits expressly prescribed in this Consent Decree nor to preclude the Lafarge Companies from challenging any more stringent Emission Limits or Tonnage Limits should they be proposed for reasons independent of this Consent Decree.

94. As soon as practicable, but in no event later than one hundred twenty (120) Days after the establishment of any Emission Limits pursuant to Consent Decree, the Lafarge Companies shall submit applications to the appropriate permitting authority to incorporate all applicable Emission Limits, and any requirements and limitations, including those in Sections V (NO_x Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) and VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) of this Decree, into federally enforceable construction or other permits (other than Title V permits) which are federally enforceable. Following submission of the permit application by the Lafarge Companies to the Affected State, the Lafarge Companies shall cooperate with the appropriate permitting authority by promptly submitting all information that such permitting authority seeks following its receipt of the permit application. Upon issuance of such permit or in conjunction with such permitting by the Affected State, the Lafarge Companies

shall file any applications necessary to incorporate the requirements of that permit into the Title V operating permit of the appropriate Facility. The Lafarge Companies shall not challenge the inclusion in any such permit of the Emission Limits and Tonnage Limits expressly prescribed in this Consent Decree (including, where applicable, 30-Day Rolling Average Emission Limits determined in accordance with the Appendix), but nothing in this Consent Decree is intended nor shall it be construed to require the establishment of Emission Limits or Tonnage Limits other than those Emission Limits and Tonnage Limits expressly prescribed in this Consent Decree nor to preclude the Lafarge Companies from challenging any more stringent Emission Limits or Tonnage Limits should they be proposed for reasons independent of this Consent Decree.

95. The Parties agree that the incorporation of any Emission Limits and any other requirements and limitations into the Title V permits for the Lafarge Companies' Facilities shall be in accordance with the applicable federal, State or local rules or laws.

96. For each Kiln, the Lafarge Companies shall provide U.S. EPA with a copy of each application for a permit to address or comply with any provision of this Consent Decree, as well as a copy of any permit proposed as a result of such application, to allow for timely participation in any public comment opportunity.

97. In lieu of incorporating the terms of the Consent Decree directly into a permit issued under a SIP pursuant to Paragraphs 92 and 94, the Lafarge Companies may request an Affected State to submit the portions of the Consent Decree applicable to the Facilities in that Affected State to the U.S. EPA for approval under the State's SIP in accordance with 42 U.S.C. § 7410(k). Upon approval by the U.S. EPA, those portions of this Consent Decree will be incorporated into the Affected State's SIP, and subsequently incorporated into Title V permits for each Facility consistent with applicable requirements in 40 C.F.R. Part 70 or State-specific

rules adopted and approved consistent with Part 70. The Lafarge Companies agree not to contest the submittal of any such proposed SIP revision that incorporates the terms of this Consent Decree to U.S. EPA, or U.S. EPA's approval of such submittal, or the incorporation of the applicable portions of this Consent Decree through these SIP requirements into the Title V permits.

98. Notwithstanding Paragraphs 91-94 and 97, nothing in this Consent Decree shall be construed to require the Lafarge Companies to apply for or obtain a PSD or Non-attainment NSR permit or SIP amendment for any actions required under this Consent Decree.

99. When permits or SIP amendments are required as described in Paragraphs 91-94 and 97, the Lafarge Companies shall complete and submit applications for such permits or SIP amendments to the appropriate authorities to allow sufficient time for all legally required processing and review of the permit application or application for a SIP amendment, including requests for additional information by the permitting authorities. Any failure by the Lafarge Companies to submit a timely and complete permit application or application for a SIP amendment for any Kiln shall bar any use by the Lafarge Companies of Section XIV (Force Majeure) of this Consent Decree, where a Force Majeure claim is based on permitting delays or delays associated with issuance of a the SIP amendment.

100. Notwithstanding the reference to Title V permits in this Consent Decree, the enforcement of such permits shall be in accordance with their own terms and the Act. The Title V permits shall not be enforceable under this Consent Decree, although any term or limit established by or under this Consent Decree shall be enforceable under this Consent Decree regardless of whether such term has or will become part of a Title V permit, subject to the terms of Section XXIII (Termination) of this Consent Decree.

XI. REVIEW AND APPROVAL OF SUBMITTALS

101. After review of any plan, report, or other document that is required to be submitted pursuant to this Consent Decree, U.S. EPA and the Affected State shall in writing: (a) approve the submission; (b) approve the submission upon specified conditions; (c) approve part of the submission and disapprove the remainder; or (d) disapprove the submission.

102. If the submission is approved pursuant to Paragraph 101, the Lafarge Companies shall take all actions required by the plan, report, or other document, in accordance with the schedules and requirements of the plan, report, or other document, as approved. If the submission is conditionally approved or approved only in part, pursuant to Paragraph 101(b) or (c), the Lafarge Companies shall, upon written direction of U.S. EPA, after consultation with the Affected State, take all actions required by the approved plan, report, or other item that U.S. EPA, after consultation with the Affected State, determines are technically severable from any disapproved portions, subject to Lafarge's right to dispute only the specified conditions or the disapproved portions, under Section XV of this Decree (Dispute Resolution).

103. If the submission is disapproved in whole or in part pursuant to Paragraph 101(c) or (d), the Lafarge Companies shall, within 45 Days or such other time as the Parties agree to in writing, correct all deficiencies and resubmit the plan, report, or other item, or disapproved portion thereof, for approval, in accordance with the preceding Paragraphs. If the resubmission is approved in whole or in part, the Lafarge Companies shall proceed in accordance with the preceding Paragraph.

104. Any stipulated penalties applicable to an original submission that is disapproved in whole or in part pursuant to Paragraph 101(c) or (d), as provided in Section XIII (Stipulated Penalties) of this Decree, shall continue to accrue during the period specified in Paragraph 114,

but any stipulated penalties that accrue following the receipt of the submission shall not be payable unless the resubmission is untimely or is disapproved in whole or in part; provided that, if the original submission was so deficient as to constitute a material breach of Lafarge's obligations under this Decree, the stipulated penalties applicable to the original submission shall be due and payable notwithstanding any subsequent resubmission.

105. If a resubmitted plan, report, or other item, or portion thereof, is disapproved in whole or in part, U.S. EPA and the Affected State may again require the Lafarge Companies to correct any deficiencies in accordance with the preceding Paragraphs, or may themselves correct any deficiencies and seek stipulated penalties, subject to the Lafarge Companies' right to invoke Dispute Resolution under Section XV of this Consent Decree.

XII. REPORTING REQUIREMENTS

106. The Lafarge Companies shall submit the following reports: Within 30 Days after the end of each half calendar year (*i.e.*, by January 30th, July 30th) after the Effective Date, until termination of this Decree pursuant to Section XXIII (Termination), the Lafarge Companies shall submit a semi-annual report to U.S. EPA and the Affected States for the immediately preceding half calendar year period that shall:

a. Identify any and all dates on which the Lafarge Companies have installed, or describe the progress of installation of, each Control Technology required for each Kiln under Section V (NO_x Control Technology, Emission Limits, Tonnage Limits and Monitoring Requirements) and Section VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions;

b. Identify any and all dates on which the Lafarge Companies have completed installation of, or describe the progress of installation of, each CEMS required under Section V.B. (NO_x Continuous Emission Monitoring Systems)and Section VI.B (SO_2 Continuous Emission Monitoring Systems), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions;

c. Identify any and all dates on which the Lafarge Companies Temporarily Ceased Kiln Operation pursuant to Section VII (Temporary Cessation of Kiln Operation);

d. Provide all CEMS data collected for each Kiln, including an explanation of any periods of CEMs downtime together with any missing data for which the Lafarge Companies applied missing data substitution procedures, under Section V.B. (NO_x Continuous Emission Monitoring Systems) and Section VI.B (SO_2 Continuous Emission Monitoring Systems);

e. Demonstrate compliance with all applicable Demonstration-Phase Facility-Wide 12-Month Rolling Average Emission Limits in Section V (NO_x Control Technology, Emission Limits, Tonnage Limits and Monitoring Requirements) and Section VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) of the Consent Decree;

f. Demonstrate compliance with all applicable Facility-Wide 12-Month Rolling Average Emission Limits in Section V (NO_x Control Technology, Emission Limits, Tonnage Limits and Monitoring Requirements) and Section VI (SO_2 Control Technology, Emission Limits, Tonnage Limits and Monitoring Requirements) of the Consent Decree;

g. Demonstrate compliance with all applicable 30-Day Rolling Average Emission Limits of this Consent Decree, including but not limited to those in Sections V (NO_x Control Technology, Emission Limits and Monitoring Requirements) and VI (SO_2 Control Technology, Emission Limits and Monitoring Requirements) of this Consent Decree;

h. Demonstrate compliance with all applicable 12-Month Rolling Tonnage Limits under Sections V (NO_x Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) and VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements);

i. Provide a complete description and status of all actions the Lafarge Companies have undertaken to comply with the Appendix of this Consent Decree;

j. Demonstrate compliance with any applicable 30-Day Rolling Average Emission Limits established under the Appendix of this Consent Decree;

k. Describe the status of the election made pursuant to Section VIII (Election to Retire and Replace Kilns) of this Consent Decree;

l. If applicable, describe the status of actions undertaken pursuant to Section IX (Prohibition on Netting Credits or Offsets from Required Controls) of this Consent Decree;

m. Describe the status of permit applications and any proposed SIP revisions required under this Consent Decree; and

n. Describe the status of any operation and maintenance work relating to activities required under this Consent Decree.

The semi-annual report shall also include a description of any non-compliance with the requirements of this Consent Decree and an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation.

107. If the Lafarge Companies violate, or have reason to believe that they may violate, any requirement of this Consent Decree, the Lafarge Companies shall notify the United States and the Affected State of such violation and its likely duration, in writing, within ten Business Days of the Day the Lafarge Companies first become aware of the violation, with an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation. The Lafarge Companies shall investigate the cause of the violation and shall then submit an amendment to the report required under Paragraph 106, including a full explanation of the cause of the violation, within 30 Days of the Day Lafarge becomes aware of the cause of the violation. Nothing in this Paragraph or the following Paragraph relieves Lafarge of its obligation to provide the notice required by Section XIV of this Consent Decree (Force Majeure) if Lafarge contends a Force Majeure event occurred.

108. Whenever any violation of this Consent Decree, or of any applicable permits required under this Consent Decree, or any other event affecting the Lafarge Companies' performance under this Decree, or the performance of any Facility, may pose an immediate threat to the public health or welfare or the environment, the Lafarge Companies shall notify U.S. EPA and the Affected State, orally or by electronic or facsimile transmission as soon as possible, but no later than 24 hours after Lafarge first knew, or should have known, of the violation or event. This procedure is in addition to the requirements set forth in the preceding Paragraph.

109. All reports shall be submitted to the persons designated in Section XIX of this Consent Decree (Notices).

110. Each report submitted by Lafarge under this Section shall be signed by an official of the submitting party and include the following certification:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

This certification requirement does not apply to emergency or similar notifications where compliance would be impractical.

111. The reporting requirements of this Consent Decree do not relieve Lafarge of any reporting obligations required by the Clean Air Act or implementing regulations, or by any other federal, State, or local law, regulation, permit, or other requirement.

112. Any information provided pursuant to this Consent Decree may be used by the United States in any proceeding to enforce the provisions of this Consent Decree and as otherwise permitted by law.

XIII. STIPULATED PENALTIES

113. The Lafarge Companies shall be liable for stipulated penalties to the United States and Affected State(s) for violations of this Consent Decree as specified in Table 1 below, unless excused under Section XIV (Force Majeure). A violation includes failing to perform any obligation required by the terms of this Decree, including any work plan or schedule approved under this Decree, according to all applicable requirements of this Decree and within the specified time schedules established by or approved under this Decree. Violation of an Emission

Limit that is based on a 30-Day Rolling Average is a violation on every Day on which the average is based. Where a violation of a 30-Day Rolling Average Emission Limit (for the same pollutant and from the same source) recurs within periods of less than thirty (30) Days, the Lafarge Companies shall not pay a daily stipulated penalty for any Day of recurrence for which a stipulated penalty is already recoverable. A violation of an Emission Limit that is based on a 12-Month Rolling Average is a violation each month on which the average is based. Where a violation of a 12-Month Rolling Average Emission Limit or 12-Month Rolling Tonnage Limit (for the same pollutant and from the same source) recurs within periods of less than twelve (12) months, the Lafarge Companies shall not pay a monthly stipulated penalty for any month of the recurrence for which a stipulated penalty is already recoverable. Stipulated penalties may only be assessed once for a given Day or month within any averaging period for violation of any particular Emission Limit or Tonnage Limit. Stipulated penalties for consecutive periods of violation of an Emission Limit or Tonnage Limit shall be calculated based upon the violation of the Emission Limit or Tonnage Limit for the same pollutant from the same Kiln (if a Kiln-specific limit) or Facility (if a Facility-specific limit).

TABLE 1

Consent Decree Violation	**Stipulated Penalty**
Failure to pay the civil penalty as specified in Section IV (Civil Penalty) of this Consent Decree.	$7,500 for each Day
Failure to Comply with a Facility-Wide 12-Month Rolling Average Tonnage Limit for NO_x or SO_2	For each new calendar month on which the calculated Facility-Wide 12-Month Rolling Tonnage emissions exceed the applicable Limit: $1,000 per Ton for the first 100 Tons over the Limit, and $5,000 per Ton for each additional Ton over the Limit.

Consent Decree Violation	Stipulated Penalty
Failure to comply with a Facility-Wide 12-Month Rolling Average Emission Limit (including Demonstration Phase Limits) for NO_x or SO_2, where the emissions are less than 5% in excess of the limits set forth in this Consent Decree.	$7,500 for each month during the initial 12 months, and $10,000 for each consecutive month thereafter of a violation of the Facility-Wide Rolling Average Emission Limit (including Demonstration Phase Limits), where the violation is less than 5% in excess of the Limit.
Failure to comply with a Facility-Wide 12-Month Rolling Average Emission Limit (including Demonstration Phase Limits) for NO_x or SO_2, where the emissions are equal to or greater than 5% but less than 10% in excess of the limits set forth in this Consent Decree.	$10,000 for each month during the initial 12 months, and $15,000 for each consecutive month thereafter of violation of the Facility-Wide Rolling Average Emission Limit (including Demonstration Phase Limits), where the violation is equal to or greater than 5% and less than 10% in excess of the Limit.
Failure to comply with a Facility-Wide 12-Month Rolling Average Emission (including Demonstration Phase Limits) for NO_x or SO_2, where the emissions are equal to or greater than 10% in excess of the limits set forth in this Consent Decree.	$20,000 for each month during the initial 12 months, and $32,500 for each consecutive month thereafter of violation of the Facility-Wide Rolling Average Emission Limit (including Demonstration Phase Limits), where the violation is equal to or greater than 10% in excess of the Limit.
Failure to comply with a 30-Day Rolling Average Emission Limit for NO_x or SO_2, where the emissions are less than 5% in excess of the limits set forth in this Consent Decree.	$1,500 for each Day during any 30-Day rolling period where the violation is less than 5% in excess of the Limit.
Failure to comply with a 30-Day Rolling Average Emission Limit for NO_x or SO_2, where the emissions are equal to or greater than 5% but less than 10% in excess of the limits set forth in this Consent Decree	$3,000 for each Day during any 30-Day rolling period where the violation is equal to or greater than 5% but less than 10% in excess of the Limit.
Failure to comply with a 30-Day Rolling Average Emission Limit for NO_x or SO_2, where the emissions are equal to or greater than 10% in excess of the limits set forth in this Consent Decree	$5,000 for each Day during any 30-Day rolling period where equal to or greater than 10% in excess of the Limit.

Consent Decree Violation	Stipulated Penalty
Failure to install or Commence Continuous Operation or Continuously Operate Control Technology at a Kiln	$5,000 for each consecutiveDay during the first 20 Days, $10,000 for each consecutive Day for the next 40 Days, and $32,500 for each consecutive Day thereafter
Failure to install or Commence Continuous Operation or Continuously Operate Control Technology at a Kiln upon re-commencing operation of that Kiln following Temporary Cessation of Kiln Operation under Section VII of this Consent Decree	$100,000 upon re-commencing Kiln Operation and $32,500 for each Day thereafter
Failure to apply for any permit or permit amendment or seek a SIP approval required by Section X (Permits)	$1,000 for each Day for each such failure
Failure to install or operate a CEMS in conformance with the requirements of Section V.B. (NOx Continuous Emission Monitoring Systems) or Section VI.B (SO_2 Continuous Emission Monitoring Systems), as applicable.	$1,000 for each Day for each such failure
Failure to timely submit, modify, or implement, as approved, a report, plan, study, analysis, protocol, or other submittal required by this Consent Decree	$750 for each Day during the first 10 Days, $1,000 per Day thereafter
Any other violation of this Consent Decree	$1,000 for each Day for each violation

114. Subject to the provisions of Paragraph 113 above, stipulated penalties under this Section shall begin to accrue on the Day after performance is due or on the Day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree. The United States or Affected State(s), or all of the foregoing, may seek stipulated penalties under this Section. Where both the United States and the Affected State(s) seek stipulated penalties for the same violation of this Consent Decree, the Lafarge Companies shall pay 67% to the United States and 33% to the Affected State(s).

115. The Lafarge Companies shall pay any stipulated penalty within thirty (30) Days of receiving the United States' and/or the Affected State(s') written demand.

116. The United States and the Affected State(s) may, in the unreviewable exercise of their collective or individual discretion, reduce or waive stipulated penalties otherwise due either the United States or the Affected State(s) under this Consent Decree.

117. Stipulated penalties shall continue to accrue as provided in this Section, during any Dispute Resolution, but need not be paid until the following:

a. If the dispute is resolved by agreement between the Parties or by a decision of the United States or the Affected State that is not appealed to the Court, the Lafarge Companies shall pay accrued penalties determined to be owing, together with interest accruing from the 31st Day after the written demand in Paragraph 115, within 30 Days of the effective date of the agreement or the receipt of U.S. EPA's or the Affected State's decision or order.

b. If the dispute is appealed to the Court and the United States or the Affected State is the prevailing party, in whole or in part, as may be determined by the Court, the Lafarge Companies shall pay all accrued penalties determined by the Court to be owing, together with interest accruing from the 31st Day after the written demand in Paragraph 115, within 60 Days of receiving the Court's decision or order, except as provided in Subparagraph c, below.

c. If any Party appeals the District Court's decision, the Lafarge Companies shall pay all accrued penalties determined to be owing, together with interest accruing from the 31st Day after the written demand in Paragraph 115, within 15 Days of receiving the final appellate court decision.

118. The Lafarge Companies shall pay stipulated penalties owing to the United States and an Affected State in the manner set forth and with the confirmation notices to the persons specified in Paragraphs 8 and 9, except that the transmittal letter shall state that the payment is for stipulated penalties and shall state for which violation(s) the penalties are being paid. The Lafarge Companies shall pay stipulated penalties owing to an Affected State in accordance with the instructions provided below:

TABLE 2

State	Payment Instructions
Alabama	Corporate check made payable to "Alabama Department of Environmental Management" and mailed to: Alabama Department of Environmental Management P.O. Box 301463 Montgomery, AL 36130-1463
Kansas	Check payable and mailed to: Kansas Department of Health and Environment Address: Kansas Department of Health and Environment 1000 SW Jackson Street, Suite 310 Topeka, Kansas 66612-1366 Attn: Victor Cooper The memorandum portion of the check shall identify the case number.
Illinois	Certified check or money order payable to "Illinois EPA for deposit into the EPTF" and mailed to: Illinois Environmental Protection Agency Fiscal Services 1021 North Grand Avenue East P. O. Box 19276 Springfield, IL 62794-9276

State	Payment Instructions
Iowa	Check payable to the "State of Iowa" and mailed to: David R. Sheridan Environmental Law Division Lucas State Office Bldg. 321 E. 12th Street, Room 018 Des Moines, IA 50319
Michigan	Check payable to the "State of Michigan" and mailed to: Michigan Department of Environmental Quality, Financial and Business Services Division, Revenue Control P.O. Box 30657 Lansing, Michigan 48909-8157. To ensure proper credit, the civil penalty payment shall include the Agreement Identification No. AQD3303S on the face of the check.
Missouri	Certified check payable to the "State of Missouri (Jackson County Treasurer)" and mailed to: Jo Ann Horvath Office of the Attorney General P. O. Box 899 Jefferson City, MO 65102-0899
New York	Check payable to "Department of Environmental Conservation" and mailed to: Attention: Elissa Armater, Office of General Counsel New York Department of Environmental Conservation 625 Broadway Albany, New York 12233-5500, With a copy to: Robert Rosenthal, Assistant Attorney General Environmental Protection Bureau Office of the Attorney General The Capitol Albany, New York 12224

State	Payment Instructions
Ohio	Certified check payable to the order of "Treasurer, State of Ohio," mailed to: Karen Pierson, Paralegal, or her successor, Office of the Attorney General of Ohio, Environmental Enforcement Section, 30 East Broad Street, 25th Floor Columbus, Ohio 43215 A letter shall accompany the check briefly describing the type of violation, deadline, or requirement not met and the date upon which the violation of this Consent Decree occurred; the memorandum portion of the check, or some other prominent location on the transmittal letter or documentation, shall include a reference to "A.G. EAGO No. 354473."
Oklahoma Department of Environmental Quality	Check payable and mailed to: Resources Management Accounts Receivable Financial and Human Department of Environmental Quality P.O. Box 2036 Oklahoma City, OK 73101-2036
Pennsylvania	Corporate check payable to the "Commonwealth of Pennsylvania – Clean Air Fund" and mailed to: Air Quality Program Manager, PA Department of Environmental Protection, 2 Public Square Wilkes-Barre, PA 18711
Puget Sound Clean Air Agency	Check payable and mailed to "Puget Sound Clean Air Agency": Dennis McLerran Executive Director Puget Sound Clean Air Agency 1904 3rd Ave, Suite 105 Seattle WA USA 98101

State	Payment Instructions
South Carolina Department of Health and Environmental Control	Check payable to: "SC Department of Health and Environmental Control" R. Keith Frost, Director Air Compliance Management Division Bureau of Air Quality SC Department of Health and Environmental Control 2600 Bull Street Columbia, SC 29201
Washington State Department of Ecology	Check payable and mailed to: Department of Ecology Cashiering Unit P.O. Box 47611, Olympia, WA 98504-7611 The Memorandum on the check should reference NR09002001 and "Lafarge Settlement."

119. The Lafarge Companies shall not deduct stipulated penalties paid under this Section in calculating their federal income tax.

120. If the Lafarge Companies fail to pay stipulated penalties according to the terms of this Consent Decree, the Lafarge Companies shall be liable for interest on such penalties, as provided for in 28 U.S.C. § 1961, accruing as of the date payment became due. Nothing in this Paragraph shall be construed to limit the United States or any Affected State from securing any remedy otherwise provided by law for the Lafarge Companies' failure to pay any stipulated penalties.

121. Subject to the provisions of Section XVII of this Consent Decree (Effect of Settlement/Reservation of Rights), the stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the United States or an Affected State for the Lafarge Companies' violation of this Consent Decree or applicable law.

Where a violation of this Consent Decree is also a violation of any applicable statute or regulation, the Lafarge Companies shall be allowed a credit, dollar for dollar, for any stipulated penalties paid, against any statutory penalties imposed for such violation, including penalties resulting from enforcement pursuant to Paragraphs 146 and 147.

XIV. FORCE MAJEURE

122. "Force Majeure" (for purposes of this Consent Decree) is defined as any event arising from causes beyond the control of the Lafarge Companies, of any entity controlled by the Lafarge Companies, or of the Lafarge Companies' Contractors, that causes a delay or impediment to performance in complying with any obligation under this Consent Decree despite the Lafarge Companies' best efforts to fulfill the obligation. The requirement that the Lafarge Companies exercise best efforts to fulfill the obligation includes using best efforts to anticipate any potential Force Majeure event and best efforts to address the effects of any such event (a) as it is occurring and (b) after it has occurred to prevent or minimize any resulting delay to the greatest extent possible. Force Majeure does not include the Lafarge Companies' financial inability to perform any obligation under this Consent Decree.

123. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, and which Lafarge Companies contend qualifies as an event of Force Majeure, the Lafarge Companies shall provide notice orally or by electronic or facsimile transmission to the representatives of U.S. EPA and the Affected State(s) designated to receive notice pursuant to Section XIX (Notices) as soon as practicable but no later than seven (7) Business Days following the date the Lafarge Companies first knew, or in the exercise of due diligence should have known, that the claimed Force Majeure event might cause a delay and give rise to a claim of Force Majeure. The Lafarge Companies shall provide written notice of the

event as soon as practicable, but in no event later than 21 Business Days following the date when the Lafarge Companies first knew that the event might cause a delay. The written notice shall explain and describe the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; and the Lafarge Companies' rationale for attributing such delay to a Force Majeure event if it intends to assert such a claim. The Lafarge Companies shall include with any written notice all available documentation supporting the claim that the delay was attributable to a Force Majeure. The Lafarge Companies shall be deemed to know of any circumstance of which the Lafarge Companies, any entity controlled by the Lafarge Companies, or the Lafarge Companies Contractors knew or should have known.

124. Failure by the Lafarge Companies to comply with the notice requirements of Paragraph 123 may render this Section voidable by U.S. EPA, after an opportunity for consultations with the Affected State, as to the specific event for which the Lafarge Companies have failed to comply with such notice requirement. If so voided, it shall be of no effect as to the particular event involved.

125. If U.S. EPA and the Affected State agree that the delay or anticipated delay is attributable to a Force Majeure event, the appropriate Parties may reach agreement and stipulate in writing to an extension of the required deadline(s) for all requirement(s) affected by the Force Majeure event for a period equivalent to the delay actually caused by the Force Majeure event, or such other period as may be appropriate in light of the circumstances. If such stipulation results in a material change to the terms of the Consent Decree, the stipulation shall be filed as a modification to the Consent Decree pursuant to Section XXII (Modification). An extension of

the time for performance of the obligations affected by the Force Majeure event shall not, of itself, extend the time for performance of any other obligation. If the Parties do not reach agreement on the appropriate extension of any deadlines affected by a Force Majeure event, U.S. EPA and the Affected State will notify the Lafarge Companies in writing of the length of the extension, if any, for performance of the obligations affected by the Force Majeure event. The Lafarge Companies shall comply with the extended deadlines specified in the notice from U.S. EPA and the Affected State, subject to the provisions of Section XV (Dispute Resolution).

126. If U.S. EPA and the Affected State do not agree that the delay or anticipated delay has been or will be caused by a Force Majeure event, U.S. EPA and the Affected State will notify the Lafarge Companies in writing of their decision.

127. If the Lafarge Companies elect to invoke the formal dispute resolution procedures set forth in Section XV (Dispute Resolution), they shall do so no later than 45 Days after receipt of U.S. EPA's and the Affected State's notice pursuant to Paragraph 125 or Paragraph 126, whichever applies, and shall first comply with the provisions for Informal Dispute Resolution contained in Section XV before proceeding to Formal Dispute Resolution. In any such proceeding in accordance with Formal Dispute Resolution Procedures, the Lafarge Companies shall have the burden of demonstrating that the delay or anticipated delay has been or will be caused by a Force Majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that the Lafarge Companies complied with the requirements of Paragraph 123, above. If the Lafarge Companies carry this burden, the delay at issue shall be deemed not to be a violation by the Lafarge Companies of the affected obligation of this Consent Decree identified to U.S. EPA and the Court.

128. This Court shall not draw any inferences nor establish any presumptions adverse to any Party as a result of the Lafarge Companies delivering a notice of Force Majeure or the Parties' inability to reach agreement.

XV. DISPUTE RESOLUTION

129. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. The Lafarge Companies' failure to seek resolution of a dispute under this Section shall preclude the Lafarge Companies from raising any such issue as a defense to an action by the United States or the Affected State(s) to enforce any obligation of the Lafarge Companies arising under this Decree.

130. Informal Dispute Resolution. Any dispute subject to Dispute Resolution under this Consent Decree shall first be the subject of informal negotiations. The dispute shall be considered to have arisen when the Lafarge Companies sends the United States and the Affected State(s) a written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed 20 Days from the date the dispute arises, unless that period is modified by written agreement. If the Parties cannot resolve a dispute by informal negotiations, then the position advanced by the United States and the Affected State(s) shall be considered binding unless, within 20 Days after the conclusion of the informal negotiation period, the Lafarge Companies invoke formal dispute resolution procedures as set forth below.

131. Formal Dispute Resolution. The Lafarge Companies shall invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving on the United States and Affected State(s) a written Statement of Position regarding the matter in

dispute. The Statement of Position shall include, but may not necessarily be limited to, any factual data, analysis, or opinion supporting the Lafarge Companies' position and any supporting documentation relied upon by the Lafarge Companies.

132. The United States and the Affected State(s) shall serve their Statement of Position within 45 Days of receipt of the Lafarge Companies' Statement of Position. The United States' and the Affected State(s)' Statement of Position shall include, but may not necessarily be limited to, any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by the United States and the Affected State(s). The Statement of Position of the United States and Affected State(s) shall be binding on the Lafarge Companies, unless the Lafarge Companies file a motion for judicial review of the dispute in accordance with the following Paragraph.

133. The Lafarge Companies may seek judicial review of the dispute by filing with the Court and serving on the United States and the Affected State(s), in accordance with Section XIX of this Consent Decree (Notices), a motion requesting judicial resolution of the dispute. The motion shall contain a written statement of the Lafarge Companies' position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of the Consent Decree.

134. The United States and the Affected State(s) shall respond to the Lafarge Companies' motion within the time period allowed by the Local Rules of this Court. The Lafarge Companies may file a reply memorandum, to the extent permitted by the Local Rules.

135. Standard of Review. Except as otherwise provided in this Consent Decree, the Court shall decide all disputes pursuant to applicable principles of law. The disputing Parties

shall state their respective positions as to the applicable standard of law for resolving the particular dispute in the Parties' initial filings with the Court under Paragraphs 133 and 134. Except as otherwise provided in this Consent Decree, in any dispute brought under this Section XV (Dispute Resolution), the Lafarge Companies shall bear the burden of demonstrating that their position complies with this Consent Decree.

136. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of the Lafarge Companies under this Consent Decree, unless and until final resolution of the dispute so provides. Stipulated penalties with respect to the disputed matter shall continue to accrue from the first Day of noncompliance, but payment shall be stayed pending resolution of the dispute and in accordance with any extension or modification of the schedule for completion of work as provided in Paragraph 125. If the Lafarge Companies do not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XIII (Stipulated Penalties).

137. This Court shall not draw any inferences nor establish any presumptions adverse to any disputing Party as a result of invocation of this Section or the disputing Parties' inability to reach agreement.

138. As part of the resolution of any dispute under this Section, in appropriate circumstances the disputing Parties may agree, or this Court may order, an extension or modification of the schedule for the completion of the work required under this Consent Decree.

XVI. INFORMATION COLLECTION AND RETENTION

139. The United States, the Affected States and their representatives, including attorneys, Contractors, and consultants, shall have the right of entry into any Facility covered by this Consent Decree, at all reasonable times, upon presentation of credentials, to:

a. monitor the progress of activities required under this Consent Decree;

b. verify any data or information submitted to the United States or the Affected State(s) in accordance with the terms of this Consent Decree;

c. obtain samples and, upon request, splits of any samples taken by the Lafarge Companies or its representatives, Contractors, or consultants;

d. obtain copies of any documents, including photographs and similar data, relating to activities required under this Consent Decree; and

e. assess the Lafarge Companies' compliance with this Consent Decree.

140. Until five years after the termination of this Consent Decree, the Lafarge Companies shall retain in electronic form, and shall instruct its Contractors and agents to preserve in electronic form, all non-identical copies of all documents and records in their or their Contractors' or agents' possession or control, or that come into their or their Contractors' or agents' possession or control, and that relate in any manner to the Lafarge Companies' performance of their obligations under this Consent Decree. This information-retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures. At any time during this information-retention period, upon request by the United States or the Affected State(s), the Lafarge Companies shall provide copies of any documents, records, or other information required to be maintained under this Paragraph.

141. Upon request, the Lafarge Companies shall provide U.S. EPA and the Affected State or their authorized representative with splits of any samples taken by the Lafarge Companies. Upon request, U.S. EPA and the Affected State shall provide the Lafarge Companies with splits of samples taken by U.S. EPA or the Affected State.

142. At the conclusion of the information-retention period provided in Paragraph 140, the Lafarge Companies shall notify the United States and the Affected States at least 90 Days prior to the destruction of any documents, records, or other information subject to the requirements of Paragraph 140 and, upon request by the United States or the Affected States, the Lafarge Companies shall deliver any such documents, records, or other information to U.S. EPA or the Affected States. The Lafarge Companies may assert that certain documents, records, or other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Lafarge Companies assert such a privilege, they shall provide the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of each author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of the document, record, or information; and (6) the privilege asserted by the Lafarge Companies. However, no documents, records, or other information created or generated pursuant to the requirements of this Consent Decree shall be withheld on grounds of privilege.

143. The Lafarge Companies may assert that information required to be provided under this Section is protected as Confidential Business Information ("CBI") under 40 C.F.R. Part 2 and any applicable states laws. As to any information that the Lafarge Companies seek to protect as CBI, the Lafarge Companies shall follow the procedures set forth in 40 C.F.R. Part 2 and any applicable State laws.

144. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States or the Affected State(s) pursuant to applicable federal or State laws, regulations, or permits, nor does it limit or affect any duty or

obligation of the Lafarge Companies to maintain documents, records, or other information imposed by applicable federal or State laws, regulations, or permits.

XVII. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

145. Liability Resolution. With respect to the emissions of NO_x and SO_2 from the Kilns identified in Paragraph 7.z (except for Joppa Kiln 3), entry of this Consent Decree shall resolve all civil liability of the Lafarge Companies to the United States and the Affected States for violations of the following requirements resulting from or arising out of a construction or modification that commenced prior to the Date of Lodging of the Consent Decree:

a. The PSD requirements at Part C of Subchapter I of the Act, 42 U.S.C. § 7475, and the regulations promulgated thereunder at 40 C.F.R. §§ 52.21 and 51.166; "Plan Requirements for Non-attainment Areas" at Part D of Subchapter I of the Act, 42 U.S.C. §7503 and the regulations promulgated thereunder at 40 C.F.R. §§ 51.165(a) and (b), 40 C.F.R. Part 51 (Appendix S), and 40 C.F.R. § 52.24; any applicable federally-enforceable State, regional, or local regulations that implement, adopt, or incorporate the specific federal regulatory requirements identified above; and, any applicable State, regional, or local regulations that implement, adopt, or incorporate the specific federal regulatory requirements identified above.

b. Title V of the Clean Air Act, 42 U.S.C. §§ 7661-7661f; any applicable federally-enforceable State, regional, or local regulations that implement, adopt, or incorporate the specific federal regulatory requirements of Title V; and, any applicable State, regional, or local regulations that implement, adopt, or incorporate the specific federal regulatory requirements of Title V, but only to the

extent that such claims are based on the Lafarge Companies' failure to obtain an operating permit that reflects applicable requirements imposed under Parts C or D of Subchapter I of the Clean Air Act as a result of construction or modification of the Kilns identified in Paragraph 7.z. (except for Joppa Kiln 3) that commenced prior to the Date of Lodging.

146. Notwithstanding the resolution of liability in Paragraph 145 nothing in this Consent Decree precludes the United States and/or the Affected States from seeking from the Lafarge Companies injunctive relief, penalties, or other appropriate relief for violations by the Lafarge Companies of the regulatory requirements identified in Paragraph 145 resulting from (1) construction or modification that commenced prior to the Date of Lodging of the Consent Decree, if the resulting violations do not relate to the Kilns (other than Joppa Kiln 3) or do not relate to NO_x or SO_2; or (2) any construction or modification that commences after the Date of Lodging of the Consent Decree.

147. The United States and the Affected States reserve all legal and equitable remedies available to enforce the provisions of this Consent Decree. This Consent Decree shall not be construed to limit the rights of the United States or the Affected States to obtain penalties or injunctive relief under the Act or implementing regulations, or under other federal or State laws, regulations, or permit conditions, except as expressly specified in Paragraph 145. The United States and the Affected States further reserve all legal and equitable remedies to address any imminent and substantial endangerment to the public health or welfare or the environment arising at, or posed by, one or more of the Lafarge Companies' Facilities, whether related to the violations addressed in this Consent Decree or otherwise.

148. In any subsequent administrative or judicial proceeding initiated by the United States or the Affected States for injunctive relief, civil penalties, other appropriate relief relating to the Facilities or the Lafarge Companies' violations, the Lafarge Companies shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, *res judicata*, collateral estoppel, issue preclusion, claim preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States or an Affected State in the subsequent proceeding were or should have been brought in the instant case, except with respect to claims that have been specifically resolved pursuant to Paragraph 145 of this Section.

149. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. The Lafarge Companies are responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits; and the Lafarge Companies' compliance with this Consent Decree shall be no defense to any action commenced pursuant to any such laws, regulations, or permits, except as set forth herein. The United States and the Affected States do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that the Lafarge Companies' compliance with any aspect of this Consent Decree will result in compliance with provisions of the Act, 42 U.S.C. U.S.C. § 7401 *et seq.*, or with any other provisions of federal, State, or local laws, regulations, or permits.

150. This Consent Decree does not limit or affect the rights of the Lafarge Companies or of the United States or the Affected States against any third parties, not party to this Consent Decree, nor does it limit the rights of third parties, not party to this Consent Decree, against the Lafarge Companies, except as otherwise provided by law.

151. This Consent Decree shall not be construed to create rights in, or grant any cause of action to, any third party not party to this Consent Decree.

XVIII. COSTS

152. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States and any Affected State shall be entitled to collect the costs (including attorneys' fees) incurred in any action necessary to collect any portion of the civil penalty or any stipulated penalties due but not paid by the Lafarge Companies.

XIX. NOTICES

153. Unless otherwise specified herein, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in writing and addressed as follows:

To U.S. EPA:

Pamela Mazakas
U.S. Environmental Protection Agency
MC 2242A
1200 Pennsylvania Ave. NW
Washington, D.C. 20460

And

For all submissions referring to the Ravena Facility:
Dore Laposta
U.S. EPA Region II
290 Broadway
New York, New York 10007-1866

For all submissions referring to the Whitehall Facility:
Judy Katz
U.S. EPA Region III
1650 Arch Street (3PM52)
Philadelphia, PA 19103-2029

For all submissions referring to the Atlanta, Roberta, and Harleyville Facilities:
Beverly Spagg
U.S. EPA Region IV
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-8960

For all submissions referring to the Joppa, Paulding, and Alpena Facilities:
George Czerniak
U.S. EPA Region V
77 W. Jackson Blvd.
Chicago, IL 60604

For all submissions referring to the Tulsa Facility:
David Garcia
U.S. EPA Region VI
1445 Ross Avenue
Suite 1200
Dallas, Texas 75202

For all submissions referring to the Davenport, Sugar Creek, and Fredonia Facilities:
Rebecca Weber
U.S. EPA Region VII
901 N. 5th Street
Kansas City, KS 66101

For all submissions referring to the Seattle Facility:
John Keenan
U.S. EPA Region X
1200 Sixth Avenue Suite 900
Seattle, WA 98101

To the United States (in addition to the U.S. EPA addresses above):

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
Box 7611 Ben Franklin Station
Washington, D.C. 20044-7611
Re: DOJ No. 90-5-2-1-08221

For all submissions referring to the Roberta Facility, to the State of Alabama:
Ronald W. Gore, Chief
Air Division
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, AL 36130-1464

For all submissions referring to the Ravena Facility, to the State of New York:
Gene Kelly, Regional Director
NYSDEC Region 4 Headquarters
1130 North Westcott Road
Schenectady, NY 12306-2014

For all submissions referring to the Whitehall Facility, to the Commonwealth of Pennsylvania Department of Environmental Protection:
Mark Wejkszner
Air Quality Program Manager – Northeast Regional Office
Pennsylvania Department of Environmental Protection
2 Public Square
Wilkes-Barre, PA 18711-0790

For all submissions referring to the Paulding Facility, to the State of Ohio:
Tom Kalman, or his successor
Air Quality Engineer
Ohio Environmental Protection Agency
Division of Air Pollution Control
50 West Town Street, Suite 700
Columbus, Ohio 43215

Don Waltermeyer, or his successor
Environmental Supervisor
Ohio Environmental Protection Agency
Northwest District Office
347 North Dunbridge Road
Bowling Green, Ohio 43402

Robert Kenneth James, or his successor
Assistant Attorney General
Office of the Attorney General of Ohio
Environmental Enforcement Section
30 East Broad Street, 25th Floor
Columbus, Ohio 43215

For all submissions referring to the Alpena Facility, to the State of Michigan:
Thomas Hess
Enforcement Unit Chief
Michigan Department of Environmental Quality
Air Quality Division
P.O. Box 30260
Lansing, Michigan 48909-7760

For all submissions referring to the Harleyville Facility, to the South Carolina Department of Health and Environmental Control:
Myra C. Reece, Chief
Bureau of Air Quality Control
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

For all submissions referring to the Joppa Facility, to the State of Illinois:
Raymond Pilapil, Section Manager
Compliance and Systems Management Section
Illinois Environmental Protection Agency
1021 North Grand Avenue
Springfield, Illinois 62702

For all submissions referring to the Davenport Facility, to the State of Iowa:
Brian Hutchins, Chief
Air Compliance and Monitoring Section
Iowa Department of Natural Resources
Air Quality Bureau
7900 Hickman Road, Suite 1
Urbandale, IA 50322

For all submissions referring to the Sugar Creek Facility, to the State of Missouri:
Steve Feeler, Chief
Compliance/Enforcement Section
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102

For all submissions referring to the Fredonia Facility, to the State of Kansas:
Victor Cooper, Chief
Air Compliance and Enforcement Section
Kansas Department of Health and Environment
1000 SW Jackson, Suite 310
Topeka, Kansas 66612-1366

For all submissions referring to the Tulsa Facility, to the Oklahoma Department of Environmental Quality:
Mr. Eddie Terrill
Director
Air Quality Division
Oklahoma Department of Environmental Quality
P.O. Box 1677
Oklahoma City, OK 73101-1677

For all submissions referring to the Seattle Facility, to the Washington State Department of Ecology:
Stuart Clark
Air Quality Manager
Washington State Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

For all submissions referring to the Seattle Facility, to the Puget Sound Clean Air Agency:
Jim Nolan
Puget Sound Clean Air Agency
1904 Third Avenue - Suite 105
Seattle, WA 98101

To the Lafarge Companies:

General Counsel, Peter L. Keeley (or Successor)
Lafarge North America Inc.
12950 Worldgate Dr., Ste. 500
Herndon, VA 20170

Vice President of Environment and Government Affairs, Craig S. Campbell (or Successor)
Lafarge North America Inc. – Cement Division
12950 Worldgate Dr., Ste. 500
Herndon, VA 20170

Steven C. Kohl, Esq.
Warner Norcross & Judd LLP
2000 Town Center, Suite 2700
Southfield, MI 48075-1318

154. Any Party may, by written notice to the other Parties, change its designated notice recipient or notice address provided above.

155. Notices submitted pursuant to this Section shall be deemed submitted upon mailing, unless otherwise provided in this Consent Decree or by mutual agreement of the Parties in writing.

XX. EFFECTIVE DATE

156. The Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court or a motion to enter the Consent Decree is granted, whichever occurs first.

XXI. RETENTION OF JURISDICTION

157. The Court shall retain jurisdiction over this case until termination of this Consent Decree, for the purpose of resolving disputes arising under this Decree or entering orders modifying this Decree, pursuant to Sections XV (Dispute Resolution) and XXII (Modification), or effectuating or enforcing compliance with the terms of this Decree.

XXII. MODIFICATION

158. The terms of this Consent Decree, including the Appendix, may be modified only by a subsequent written agreement signed by any Affected State(s), the United States, and the Lafarge Companies, except as provided in Paragraph 159. Where the modification constitutes a material change to this Decree, it shall be effective only upon approval by the Court. If the Effective Date of this Consent Decree is after January 1, 2010, the Parties will negotiate in good faith an extension of up to one year for any Dates of Commencement of Continuous Operation under Section V (NO_x Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) or VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) falling between July 1, 2010 and July 1, 2011. Such agreement, if

reached by the Parties, shall be in writing and shall be submitted by the Parties on joint motion to the Court as a modification of this Consent Decree.

159. Any disputes concerning modification of this Decree shall be resolved pursuant to Section XV of this Decree (Dispute Resolution), provided, however, that, instead of the burden of proof provided by Paragraph 135, the Party seeking the modification bears the burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

XXIII. TERMINATION

160. Termination as to an Individual Facility. After the Lafarge Companies have satisfied the requirements of Sections V (NO_x Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements), VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements), VII (Temporary Cessation of Kiln Operation), VIII (Election to Retire and Replace Kilns), IX (Prohibition on Netting Credits or Offsets from Required Controls) and X (Permits) of this Decree and have maintained operation of any Control Technology as required by this Consent Decree for a period of three years at an individual Facility, the Lafarge Companies may serve upon the United States and the Affected State a Request for Termination, stating that the Lafarge Companies have satisfied those requirements, together with all necessary supporting documentation. If the United States and the Affected State agree that the Decree as it relates to an individual Facility may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating those provisions of the Decree.

161. Complete Termination. After the Lafarge Companies have satisfied the requirements of Sections V (NO_x Control Technology, Emission Limits, Tonnage Limits, and

Monitoring Requirements), VI (SO_2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements), VII (Temporary Cessation of Kiln Operation), VIII (Election to Retire and Replace Kilns), IX (Prohibition on Netting Credits or Offsets from Required Controls) and X (Permits) of this Decree and have maintained operation of all Control Technology as required by this Consent Decree for a period of three years at all Facilities, have complied with all other requirements of this Consent Decree, and have paid the civil penalty and any accrued stipulated penalties as required by this Consent Decree, the Lafarge Companies may serve upon the United States and the Affected States a Request for Termination, stating that the Lafarge Companies have satisfied those requirements, together with all necessary supporting documentation. If the United States and the Affected State(s) agree that the Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Decree.

162. If the United States and the Affected State(s) do not agree that the Decree as a whole or as it relates to an individual Facility may be terminated, the Lafarge Companies may invoke Dispute Resolution under Section XV of this Decree. However, the Lafarge Companies shall not seek Dispute Resolution of any dispute regarding termination under Section XV of this Consent Decree until sixty (60) Days after service of its Request for Termination.

XXIV. PUBLIC PARTICIPATION

163. This Consent Decree shall be lodged with the Court for a period of not less than 30 Days for public notice and comment in accordance with 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate. The Lafarge Companies consent to entry of this Consent Decree

without further notice and agree not to withdraw from or oppose entry of this Consent Decree by the Court or to challenge any provision of the Decree, unless the United States has notified the Lafarge Companies in writing that it no longer supports entry of the Decree.

XXV. SIGNATORIES/SERVICE

164. The Assistant Attorney General or Acting Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice and each undersigned representative of the Lafarge Companies and the State Plaintiffs certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

165. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis. The Lafarge Companies agree to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons. The Lafarge Companies shall identify, on the attached signature page, the name, address and telephone number of an agent who is authorized to accept service of process by mail on behalf of the Lafarge Companies with respect to all matters arising under or relating to this Consent Decree. All Parties agree that the Lafarge Companies need not file an answer or otherwise respond to the Complaint and Complaint in Intervention in this action unless or until the Court expressly declines to enter this Consent Decree.

XXVI. INTEGRATION

166. This Consent Decree constitutes the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Decree and

supersedes all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. No other document, nor any representation, inducement, agreement, understanding or promise constitutes any part of this Decree or the settlement it represents, nor shall it be used in construing the terms of this Decree.

XXVII. FINAL JUDGMENT

167. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the United States, the State of Alabama, the State of Illinois, the State of Iowa, the State of Kansas, the State of Michigan, the State of Missouri, the State of New York, the State of Ohio, the Commonwealth of Pennsylvania Department of Environmental Protection South Carolina Department of Health and Environmental Control, the Washington State Department of Ecology, the Oklahoma Department of Environmental Quality, the Puget Sound Clean Air Agency, and the Lafarge Companies. The Court finds that there is no just reason for delay and therefore enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

XXVIII. APPENDIX

168. The following Appendix is attached to and incorporated as part of this Consent Decree:

"Appendix" contains the Technology Demonstration Requirements that apply to each Kiln under this Decree subject to those requirements. All terms in the Appendix shall be construed in a manner consistent with this Decree.

Dated and entered this 18th Day of March, 2010

UNITED STATES DISTRICT COURT JUDGE
Southern District of Illinois

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.*, et al. Consent Decree

FOR PLAINTIFF UNITED STATES OF AMERICA:

Ignacia S. Moreno

Date: 1/7/10

IGNACIA S. MORENO
Assistant Attorney General
Environment and Natural Resources
Division
United States Department of Justice

Pamela R Lee

Date: 1/11/10

PAMELA R. LEE
Trial Attorney
Environmental Enforcement Section
Environment and Natural Resources Division
United States Department of Justice
P.O. Box 7611
Washington, D.C. 20044-7611
(202) 305-2775 (Tel.)
(202) 616-6584 (Fax)
pamela.r.lee@usdoj.gov

Andrew C. Hanson

Date: 1/15/10

ANDREW C. HANSON
Trial Attorney
Environmental Enforcement Section
Environment and Natural Resources Division
United States Department of Justice
P.O. Box 7611
Washington, D.C. 20044-7611
(202) 514-9859 (Tel.)
(202) 616-6584 (Fax)
andrew.hanson2@usdoj.gov

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.*, et al. Consent Decree

FOR PLAINTIFF UNITED STATES OF AMERICA:

A. COURTNEY COX
United States Attorney

Date: 1/15/2010

J. CHRISTOPHER MOORE
Assistant United States Attorney
Nine Executive Drive
Fairview Heights, Illinois 62208-1344
(618) 628-3700 (Tel.)
(618) 628-3730 (Fax)
Chris.Moore@usdoj.gov

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.*, et al. Consent Decree

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

Cynthia Giles

Date: 1/19/10

CYNTHIA GILES
Assistant Administrator
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency

Pamela J. Mazakas

Date: 1/19/10

PAMELA J. MAZAKAS
Acting Director, Air Enforcement Division
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency

Signature Page for *United States of America et al. v. Lafarge North America, Inc.* et al. Consent Decree

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

GEORGE PAVLOU
Acting Regional Administrator
U.S. Environmental
Protection Agency
Region 2

Date: 11/20/09

for ERIC SCHAAF
Regional Counsel
U.S. Environmental
Protection Agency
Region 2

Date: 11/19/09

Signature Page for *United States of America* et al. *v. Lafarge North America, Inc.* et al. Consent Decree

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

Date: 12/28/2009

MARY J. WILKES
Regional Counsel
U.S. Environmental
Protection Agency
Region 4

Date: Dec. 19, 2009

ELLEN A. ROUCH
Attorney-Adviser
U.S. Environmental
Protection Agency
Region 4

Signature Page for *United States of America* et al. *v. Lafarge North America, Inc.* et al. Consent Decree

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

Walter W. Kovalick for

BHARAT MATHUR
Acting Regional Administrator
U.S. Environmental
Protection Agency
Region 5

Date: 11/19/09

Date: 11/18/09

ROBERT A. KAPLAN
Regional Counsel
United State Environmental
Protection Agency
Region 5

Signature Page for *United States of America* et al. *v. Lafarge North America, Inc.* et al. Consent Decree

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

Date: 11/18/09

Lawrence E. Starfield
Acting Regional Administrator
United States Environmental
Protection Agency
Region 6

Date: 11-18-09

Suzanne Murray
Regional Counsel
United State Environmental
Protection Agency
Region 6

Signature Page for *United States of America* et al. *v. Lafarge North America, Inc.* et al. Consent Decree

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

Marcia Cuppy

WILLIAM W. RICE
for Acting Regional Administrator
United States Environmental
Protection Agency
Region 7

Date: 11/17/09

David Cozad

DAVID COZAD
Regional Counsel
United States Environmental
Protection Agency
Region 7

Date: 11/13/09

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.*, et al. Consent Decree

FOR THE STATE OF ALABAMA:

TROY R. KING
Attorney General

Date: 11/14/09

ROBERT D. TAMBLING
Assistant Attorney General
500 Dexter Avenue
Montgomery, Alabama 36130

FOR THE ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT:

Date: 11-14-09

S. SHAWN SIBLEY
Associate General Counsel
Alabama Department of Environmental Management
Post Office Box 301463
Montgomery, Alabama 36130-1463

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.*, et al. Consent Decree

FOR THE PLAINTIFF- INTERVENOR; THE STATE OF ILLINOIS:

FOR THE STATE OF ILLINOIS
PEOPLE OF THE STATE OF ILLINOIS *ex rel.*

LISA MADIGAN
Attorney General of the State of Illinois

MATTHEW J. DUNN, Chief
Environmental Enforcement Division/Asbestos
Litigation Division

Date: 11/16/09

THOMAS DAVIS, Chief
Environmental Bureau
Assistant Attorney General

FOR THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:
DOUGLAS P. SCOTT, DIRECTOR

Date: 11/13/09

JOHN J. KIM
Chief Legal Counsel

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.*, et al. Consent Decree

FOR THE STATE OF IOWA:

Date: 11/12/09

DAVID R. SHERIDAN
Assistant Attorney General
Environmental Law Division
Lucas State Office Building
321 E. 12th Street, Room 018
Des Moines, IA 50319

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.*, et al. Consent Decree

FOR THE STATE OF KANSAS:

Date: 12/3/2009

RODERICK L. BREMBY
Secretary
Kansas Department of Health and Environment
1000 SW Jackson, Room 560
Topeka, KS 66611

Date: 12-2-09

YVONNE ANDERSON
Chief Legal Counsel
Kansas Department of Health and Environment
1000 SW Jackson, Room 560
Topeka, KS 66611

785.296.5334
yanderson@kdheks.gov

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.*, et al. Consent Decree

FOR THE STATE OF MICHIGAN:

Date: November 12, 2009

NEIL D. GORDON
Michigan Department of Attorney General
Environment, Natural Resources and Agriculture Division
P.O. Box 30755
Lansing, MI 48909

Date: 11/12/09

G. VINSON HELLWIG
Chief, Air Quality Division
Michigan Department of Environmental Quality
P.O. Box 30260
Lansing, MI 48909-7760

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.*, et al. Consent Decree

FOR THE STATE OF MISSOURI

CHRIS KOSTER
ATTORNEY GENERAL OF MISSOURI

Date: Nov. 18, 2009

TIMOTHY P. DUGGAN
Assistant Attorney General
Supreme Court Building
207 W. High Street
P.O. Box 899
Jefferson City, MO 65102-0899

Date: November 19, 2009

LEANNE TIPPETT-MOSBY
Acting Director
Division of Environmental Quality
Missouri Department of Natural Resources
1101 Riverside Drive
P.O. Box 176
Jefferson City, Missouri 65102-0176

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.*, et al. Consent Decree

FOR THE STATE OF NEW YORK

ANDREW M. CUOMO
ATTORNEY GENERAL OF THE STATE OF NEW YORK

Date: 11/17/09

By: ROBERT ROSENTHAL
Assistant Attorney General
Environmental Protection Bureau
The Capitol
Albany, New York 12224

Date: _____

ALEXANDER B. GRANNIS
Commissioner
New York State Department of
Environmental Conservation
625 Broadway
Albany, New York 12233-5500

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.*, et al. Consent Decree

FOR THE STATE OF OHIO:

RICHARD CORDRAY
OHIO ATTORNEY GENERAL

Robert Kenneth James

Date: 14 January 2010

ROBERT KENNETH JAMES
Assistant Attorney General
Office of the Ohio Attorney General
Environmental Enforcement Section
615 W. Superior Ave., 11th Floor
Cleveland, Ohio 44113-1899

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.,* et al. Consent Decree

FOR THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

Date: 11-13-09

STEVEN A. THOMPSON
Executive Director
Oklahoma Department of Environmental Quality
707 N. Robinson
Oklahoma City, OK 73101-1677

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.*, et al. Consent Decree

FOR THE COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION:

Michael D. Bedrin

Date: November 12, 2009.

MICHAEL D. BEDRIN
Pennsylvania Department of Environmental Protection
Regional Director - Northeast Regional Office
2 Public Square
Wilkes-Barre, PA 18711-0790

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.*, et al. Consent Decree

FOR THE PUGET SOUND CLEAN AIR AGENCY:

Dennis J. McLerran,
Executive Director
Puget Sound Clean Air Agency
1904 3rd Avenue
Suite 105, Seattle WA 98101

Date: 11/12/09

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.*, et al. Consent Decree

FOR THE SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL:

Date: 11/16/09

ROBERT W. KING, JR., P.E.
Deputy Commissioner
Environmental Quality Control
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

Date: November 12, 2009

SARA P. BAZEMORE
Staff Counsel
Office Of General Counsel
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.*, et al. Consent Decree

FOR THE WASHINGTON STATE DEPARTMENT OF ECOLOGY:

Date: 11/10/09

KATHARINE G. SHIREY
Assistant Attorney General
2425 Bristol Court SW, 2nd Floor
P.O. Box 40117
Olympia, WA 98504-0117

Date: 11/04/09

STUART CLARK
Manager
Air Quality Program
Washington State Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.,* et al. Consent Decree

FOR DEFENDANT LAFARGE NORTH AMERICA, INC.:

Date: October 20, 2009

Sylvain Garnaud
Co-President, Lafarge North America Inc.

The following is the name and address of Defendant Lafarge North America, Inc.'s agent for service pursuant to Paragraph 165.

Steven C. Kohl
Warner Norcross & Judd LLP
2000 Town Center
Suite 2700
Southfield MI 48075-1318
(248) 784-5141

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.,* et al. Consent Decree

FOR DEFENDANT LAFARGE MIDWEST, INC.:

Date: October 20, 2009

Sylvain Garnaud
President, Lafarge Midwest Inc.

The following is the name and address of Defendant Lafarge Midwest, Inc.'s agent for service pursuant to Paragraph 165.

Steven C. Kohl
Warner Norcross & Judd LLP
2000 Town Center
Suite 2700
Southfield MI 48075-1318
(248) 784-5141

Signature Page for *United States of America* et al *v. Lafarge North America, Inc.,* et al. Consent Decree

FOR DEFENDANT LAFARGE BUILDING MATERIALS, INC.:

Date: October 20, 2009

Sylvain Garnaud
President, Lafarge Building Materials Inc.

The following is the name and address of Defendant Lafarge Building Materials, Inc.'s agent for service pursuant to Paragraph 165.

Steven C. Kohl
Warner Norcross & Judd LLP
2000 Town Center
Suite 2700
Southfield MI 48075-1318
(248) 784-5141

CONSENT DECREE APPENDIX
***United States of America* et al *v. Lafarge North America, Inc.*, et al.**

CONSENT DECREE APPENDIX
***United States of America* et al *v. Lafarge North America, Inc.*, et al.**
Control Technology Demonstration Requirements

I. Scope and Applicability

1. The Lafarge Companies[1] shall comply with this Appendix in proposing and establishing 30-Day Rolling Average Emission Limits for Nitrogen Oxide ("NOx") and Sulfur Dioxide ("SO2") as applicable under Sections V and VI of the Consent Decree for individual kilns at Alpena, Sugar Creek, Fredonia, Joppa, Paulding, Ravena, Seattle and Tulsa (Affected Kilns).

2. The Affected Kilns include kilns of varying type, age, design and operating capacities. Raw materials employed in the Affected Kilns vary substantially. Similarly, fuels permitted and employed in the Affected Kilns vary by location and can include fuel oil, natural gas, coal, petroleum coke, tire-derived fuel, hazardous waste derived fuels, used oils and other materials beneficially reused as fuel. The Lafarge Companies shall take the following steps to establish 30-Day Rolling Average Emission Limits as required under Sections V and VI of the Consent Decree for NOx and/or SO2 at individual Affected Kilns at Alpena, Sugar Creek, Fredonia, Joppa, Paulding, Ravena, Seattle and if necessary, Tulsa:

   a. **Design Report:** The Lafarge Companies shall prepare and submit to U.S. EPA and the Affected State a Design Report for each Control Technology required under the Consent Decree for each Affected Kiln, except Sugar Creek;

   b. **Baseline Data Collection:** The Lafarge Companies shall collect baseline emission and operational data for each Affected Kiln for a 180-Day period prior to initiating operation of any Control Technology. The baseline data collection may run concurrently with other activities identified within this Appendix;

   c. **Optimization Program:** Following completion of installation of each Control Technology at each Affected Kiln, the Lafarge Companies shall, consistent with the requirements of Sections V or VI of the Consent Decree, undertake a startup and optimization program for each Control Technology;

   d. **Demonstration Program:** Upon completion of the startup and optimization program specified above, the Lafarge Companies shall operate the Control Technology in an optimized manner for a period of 12 months for the purpose of establishing a 30-Day Rolling Average Emission Limit for each Affected Kiln;

   e. **Final Report:** The Lafarge Companies shall prepare and submit to U.S. EPA and the Affected State for approval, a Final Report following completion of the 12-month period used to establish 30-Day Rolling Average Emission Limits for each Affected Kiln.

[1] All terms in this Appendix shall be construed consistent with meanings specified in Section III, Definitions, of the Consent Decree into which this Appendix is incorporated.

3. Supporting data required to be submitted under this Appendix may contain information relative to Kiln Operation and production that the Lafarge Companies may consider to be proprietary. In such a situation, the Lafarge Companies may submit the information to U.S. EPA as "Confidential Business Information," subject to the provisions of 40 C.F.R. Part 2.

II. Design Report Submittal

4. The Lafarge Companies shall submit to U.S. EPA and the Affected State pursuant to Section XI (Review and Approval of Submittals) a Design Report for a Control Technology required under the Consent Decree for each Affected Kiln except Sugar Creek, subject to the requirements of this Appendix. The Design Report will form the basis for any permit application which may be required under state or federal law for the Control Technology. The provisions of Section XI (Review and Approval of Submittals) shall apply to U.S.EPA's and the Affected State's review of the Design Report, except that U.S. EPA and the Affected State shall review and comment on the Design Report within 45 Days of receipt of the Design Report and supporting data and the Lafarge Companies shall respond to any comments received within 30 Days of their receipt of U.S. EPA's and the Affected State's comments. If U.S. EPA and the Affected State submit their review and comments to the Lafarge Companies more than 45 Days after receipt of the Design Report and supporting data, the applicable Date of Installation and Commencement of Continuous Operation of the Control Technology in Section V or Section VI of this Consent Decree for that Kiln to which this Appendix applies shall be extended by the same number of Days that U.S. EPA and the Affected State's submission of review and comments exceed the 45 Day period specified above.

   a. Dry Absorbent Addition (DAA) For any Affected Kiln to be equipped with a DAA system, the Lafarge Companies shall design the DAA system to deliver the selected reagent to the exhaust gases at a rate equivalent to the mass quantity of pollutant estimated to be present in the exhaust gases (1.0 reagent: SO_2 molar ratio). The Lafarge Companies shall design the DAA system to inject one or more of the following reagents into the kiln gas stream: Lime, Calcium Hydroxide, Cement Kiln Dust, and Sodium Carbonate. The Lafarge Companies shall justify in the Design Report the reagent(s) selected, the location selected for reagent injection and other design parameters based on emission reduction effectiveness, good engineering judgment, vendor standards, available data, and kiln operability.

   b. Wet Flue Gas Desulfurization (Wet FGD) For any Affected Kiln to be equipped with a Wet FGD, the Lafarge Companies shall design the Wet FGD system to achieve 90% control of estimated or known SO2 emissions and shall scrub the kiln gas stream with one of the following reagents: Limestone, Lime, and/or Cement Kiln Dust. The Lafarge Companies shall justify in the Design Report the reagent(s) and other design parameters based on emission reduction effectiveness, good engineering judgment, vendor standards, available data, and kiln operability.

   c. Selective Non-Catalytic Reduction (SNCR) , For any Affected Kiln to be equipped with a SNCR system, the Lafarge Companies shall design the SNCR system to deliver the

proposed reagent to the exhaust gases at a rate equivalent to the mass quantity of pollutant estimated to be present in the exhaust gases (1.0 reagent: NO_x molar ratio). The system shall be designed to inject one or more of the following reagents into the kiln gas stream: Anhydrous Ammonia, Aqueous (<20%) Ammonia, Aqueous (<40%) Urea, and/or Dry Urea. The Lafarge Companies shall justify in the Design Report the reagent(s) selected, the location selected for reagent injection and other design parameters based on emission reduction effectiveness, good engineering judgment, vendor standards, available data, and kiln operability.

d. Selective Catalytic Reduction (SCR) The Lafarge Companies shall depend on vendor recommendations for design of an SCR to be installed on the Joppa Kiln #1 (or an alternate Kiln pursuant to Paragraph 37 of the Consent Decree). The Lafarge Companies shall request proposals from vendors for design of an SCR at Joppa Kiln 1 that is capable of reducing emissions of NOx by up to 80%. The Lafarge Companies shall submit to U.S. EPA and the Affected State a final Design Report that justifies and identifies the amount and type of reagent and catalyst to be used, the manner of reagent injection and all other relevant design parameters selected for the equipment, including vendor recommendations for design and operation of the SCR.

III. Baseline Data Collection

5. During the baseline data collection period, the Lafarge Companies shall collect emissions and operational data for 180 operating Days prior to commencement of Continuous Operation of required Control Technology from each Affected Kiln.

6. The Lafarge Companies shall select the data collection period to obtain a continuous collection of consecutive data points, and shall base the data collection period on the following criteria:

   a. The installation of a Control Technology will not interfere with the continuous and consecutive collection of emissions and operational data;

   b. The baseline data will be collected as close as possible in time to the commencement of Continuous Operation of required Control Technology;

   c. The baseline data collection period will be representative of the normal Kiln Operation; and

   d. If continuous and consecutive data are not available prior to the commencement of Continuous Operation of a required Control Technology due to unplanned outages, excessive Startups and Shut Downs, or if a Kiln is temporarily Shut Down for business or technical reasons, the Lafarge Companies will provide an explanation to U.S. EPA and the Affected State as to why and shall select a period consistent with the requirements of paragraph 7 of this Appendix, below.

7. During the baseline data collection period, the Lafarge Companies shall operate an Affected Kiln in a manner necessary to produce a quality cement clinker product. The Lafarge Companies shall not be expected to operate a Kiln within normal operating parameters during periods of Kiln Malfunction, Startup and Shut Down. The Lafarge Companies shall not adjust parameters to increase the rate of emission (expressed as lbs/ ton of clinker produced) for NO_x or SO_2 during the baseline data collection period. For the Seattle Kiln, Joppa Kiln 1, Tulsa Kiln 1 and Tulsa Kiln 2, the baseline data collection period shall include representative periods of Kiln Operation with and without tire-derived fuel.

8. Within 45 Days following the completion of the baseline data collection period, the Lafarge Companies shall submit to U.S. EPA and the Affected State the baseline data collected during the baseline data collection period. The baseline data will include the following information either derived from available direct monitoring or as estimated from monitored or measured data:

   a. Kiln flue gas temperature at the inlet to the fabric filter or electrostatic precipitator as applicable or at the Kiln stack (daily average);

   b. Kiln production rate in tons of clinker (daily total);

   c. Raw material feed rate in tons (daily total);

   d. Type and percentage of each raw material used and the total feed rate (daily);

   e. NO_x and SO_2 concentrations (dry basis) and mass rates for each Kiln (daily average for concentrations and daily totals for mass rates) as measured at the Kiln stack gas analyzer location;

   f. Flue gas volumetric flow rate (daily average in dry acfm);

   g. Sulfur in feed (calculated to a daily average percentage), except for Seattle, Sugar Creek and Joppa;

   h. Feed burnability (at least once at the beginning and once at the end of the baseline data collection period);

   i. Temperatures indicative of the burning zone;

   j. Kiln fuel feed rate and type of fuel by weight or heat input rate (calculated to a daily average);

   k. Fuel distribution, if fuel is injected at more than one location, how much is injected at each location (daily average);

   l. Fuel sulfur percentage by weight (daily average), except for Seattle, Sugar Creek and Joppa;

m. Primary (and secondary and tertiary, where available) air rate into the Kiln, preheater and/or precalciner (as applicable) or blower/fan settings;

n. Documentation of any Startup, Shut Down, or Malfunction events; and

o. An explanation of any gaps in the data or missing data.

9. The Lafarge Companies shall submit the baseline data to U.S. EPA and the Affected State in an electronic format and shall explain the reasons for any data not collected for each of the parameters listed in Paragraph 8 of this Appendix. The Lafarge Companies shall report all data in a format consistent with and able to be manipulated by Microsoft Excel. The provisions of Section XI (Review and Approval of Submittals) shall apply to U.S. EPA's and the Affected State's review of the baseline data, except that U.S. EPA and the Affected State shall review and comment on the baseline data within 45 Days of receipt of the baseline data and the Lafarge Companies shall respond to any comments received within 30 Days of their receipt of U.S. EPA's and the Affected State's comments. The Lafarge Companies' submittal and U.S. EPA's and the Affected State's review of the baseline data shall not toll the Lafarge Companies' obligation to fulfill other requirements of this Appendix.

IV. Control Technology Startup and Optimization Period

10. Following completion of the installation of the Control Technologies required under Section V or Section VI of the Consent Decree, the Lafarge Companies shall commence Continuous Operation of a Control Technology, in accordance with the final protocol described in Paragraph 11 of this Appendix, by the date required in Section V or Section VI of the Consent Decree, whichever is applicable, by adding reagent to the SNCR or SCR systems, by combining reagent and kiln gases through the DAA systems, and/or commencing Continuous Operation of the Wet FGD systems. The Startup of each Control Technology will include any required shakedown of newly installed equipment. The Lafarge Companies shall commence optimization of the Control Technology immediately upon commencement of Continuous Operation. Startup and optimization shall extend for no longer than six Operating Months. The Lafarge Companies will make best efforts to establish the optimized steady-state operation of each Control Technology as soon as practicable.

11. Not later than 90 Days prior to the commencement of the Continuous Operation, the Lafarge Companies will submit to U.S. EPA and the Affected State pursuant to Section XI (Review and Approval of Submittals) a protocol for optimizing each Control Technology ("optimization protocol") to minimize emissions of NO_x and SO_2 to the greatest extent practicable. The provisions of Section XI (Review and Approval of Submittals) shall apply to U.S.EPA's and the Affected State's review of the optimization protocol, except that U.S. EPA and the Affected State shall review and comment on the optimization protocol within 45 Days of receipt of the optimization protocol and the Lafarge Companies shall respond to any comments received within 30 Days of their receipt of U.S. EPA's and the Affected State's comments. The protocol shall describe procedures that shall be used to evaluate the impact

of different Control Technology operating parameters on the rate of emission reduction achieved by each applicable Control Technology and shall contain:

a. The steps taken to commence Continuous Operation of the Control Technology;

b. The initial reagent injection rate (as a molar ratio of the average pollutant concentration) for each Control Technology;

c. Sampling and testing programs that will be undertaken during the initial reagent injection rate period for each Control Technology;

d. A plan to increase the reagent injection rate for each Control Technology and associated sampling and testing programs for each increase in the reagent rate;

e. The factors that will determine the maximum reagent injection rates and pollutant emission rates for each Control Technology (including maintenance of Kiln productivity and product quality);

f. Evaluation of any observed synergistic effects on Kiln emissions, Kiln Operation or product quality from Control Technologies for NO_x, SO_2 and particulates;

g. Evaluation of the cost effectiveness of the incremental addition of reagent(s) and any incremental reduction in emissions of an air contaminant; and

h. For the Seattle Kiln, Joppa Kiln 1, Tulsa Kiln 1 and Tulsa Kiln 2, optimization of the SNCR in light of the above factors while operating both with and without tire-derived fuel. The protocol shall address the sequence and time required to optimize the SNCR system while operating both with and without tire-derived fuel and the sequence and time required during the Demonstration Period for data collection while operating both with and without tire-derived fuel.

12. Within 30 Days following the optimization period for each Control Technology at each Affected Kiln (or in the case of Ravena, Affected Kilns) subject to the requirements of this Appendix, the Lafarge Companies shall provide to U.S. EPA and the Affected State pursuant to Section XI (Review and Approval of Submittals) an Optimization Report demonstrating conformance with the optimization protocol for the Control Technology and establishing the operating parameters for the Control Technology determined under the optimization protocol. The Lafarge Companies shall also include in the report a discussion of any problems encountered with the operation of the Control Technology and the impact, if any, the Control Technology may have had on changes in the emissions from the Kiln. The provisions of Section XI (Review and Approval of Submittals) shall apply to U.S.EPA's and the Affected State's review of the Optimization Report, except that U.S. EPA and the Affected State shall review and comment on the Optimization Report within 45 Days of receipt of the Optimization Report and the Lafarge Companies shall respond to any comments received within 30 Days of their receipt of U.S. EPA's and the Affected State's comments. The Lafarge Companies' submittal of and U.S. EPA's and the Affected State's review of the

Optimization Report shall not toll the Lafarge Companies' obligation to fulfill other requirements of this Appendix.

13. Optimization Targets

a. Except as otherwise provided in this Paragraph and in Paragraph 14, below, a DAA or SCNR for an Affected Kiln shall be deemed to be optimized if the Optimization Report demonstrates that the DAA or SNCR during periods of normal operation has achieved the percentage reduction consistent with its maximum design stoichiometric rate identified in the Design Report approved pursuant to Paragraph 4 of this Appendix, as applicable to the Control Technology;

b. Except as otherwise provided in this Paragraph and in Paragraph 14, below, a Wet FGD for an Affected Kiln shall be deemed optimized if the Optimization Report demonstrates that the Wet FGD achieved a reduction in the rate of emission (lbs/ton clinker) of SO2 of no less than 90% as compared to baseline data;

c. Except as otherwise provided in this Paragraph and in Paragraph 14, below, an SCR for an Affected Kiln shall be deemed optimized if the Optimization Report demonstrates that the SCR achieved a reduction in the rate of emission of NOx (lbs/ton clinker) of no less than 80%, or the removal achievable based on the vendor's recommended design, as compared to baseline data.

A Wet FGD or an SCR for an Affected Kiln shall be deemed to be optimized at a greater percentage reduction in the rate of emissions than that identified in subparagraph (b) or (c), respectively, if the Optimization Report submitted pursuant to Paragraph 12, taking into consideration the items enumerated in Paragraph 11.a. through h. of this Appendix, demonstrates that the Lafarge Companies can achieve and sustain a greater percentage reduction in the rate of emissions during periods of normal operation.

14. Notwithstanding the provisions of Paragraph 13 of this Appendix, a Control Technology for an Affected Kiln shall be deemed to be optimized at a lower percentage reduction in the rate of emissions than that identified in Paragraph 13 if the Optimization Report demonstrates that, during periods of normal operation, a higher rate of emission reduction or operation cannot be sustained without creating a meaningful risk of impairing product quality, impairing kiln system reliability or impairing compliance with then applicable emission requirements or if the Control Technology cannot sustain operation at design values.

15. During the optimization period, the Lafarge Companies, to the extent practicable, shall operate the Control Technology in a manner consistent with good air pollution control practice for minimizing emissions of pollutants other than NO_x and SO_2. The Lafarge Companies will adjust its optimization of a Control Technology as may be necessary to avoid, mitigate or abate an identifiable non-compliance with the emission limitation or standard for pollutants other than NO_x and SO_2. In the event the Lafarge Companies determines, prior to the expiration of six Operating Months, that its ability to optimize the Control Technology will be affected by potential impairments to product quality, kiln system reliability or

increased emissions of other pollutants, then the Lafarge Companies shall promptly advise U.S. EPA and the Affected State of this determination. In the event the Lafarge Companies determine, prior to the expiration of the six Operating Months that the Control Technology has been optimized, the Lafarge Companies shall promptly advise U.S. EPA and the Affected State of this determination.

V. Control Technology Demonstration Period

16. The Demonstration Period shall commence immediately following the acceptance by U.S. EPA and the Affected State of the Optimization Report. During the Demonstration Period, the Lafarge Companies shall operate a Control Technology for a period of at least 12 Operating Months consistent with the operating parameters determined during the Optimization Period for the Control Technology and identified in the Optimization Report approved by EPA and the Affected State pursuant to Paragraph 12 of this Appendix.

17. If Kiln Operation is disrupted by excessive unplanned outages, or excessive Startups and Shut Downs during the Demonstration Period, or if an Affected Kiln Temporarily Ceases Operation for business or technical reasons, the Lafarge Companies may request that U.S. EPA and the Affected State temporarily extend the Demonstration Period. U.S. EPA and the Affected State shall grant or deny the request and shall state the amount the time, if any, that the Demonstration Period may be extended. The Lafarge Companies may not suspend Demonstration Period data collection until and unless U.S. EPA and the Affected State have granted the request. Disputes regarding the appropriate amount of time shall be governed by Section XV of the Consent Decree (Dispute Resolution).

18. If evidence arises during the Demonstration Period that product quality, kiln system reliability or emission compliance with an emission limitation or standard is impaired by reason of longer term operation of a Control Technology in a manner consistent with the parameters identified in the Optimization Report, then the Lafarge Companies may, upon notice to U.S. EPA and the Affected State, temporarily modify the manner of operation of the Control Technology to mitigate the effects and request that U.S. EPA and the Affected State suspend or extend the Demonstration Period for further technical evaluation of the effects of a Control Technology or permanently modify the manner of operation of the Control Technology to mitigate the effects. U.S. EPA and the Affected State shall grant or deny the request and shall state the amount the time, if any, that the Demonstration Period may be suspended or extended. Disputes regarding the appropriate action shall be governed by Section XV of the Consent Decree (Dispute Resolution).

19. During the Demonstration Period, the Lafarge Companies shall collect the same data as required in Paragraph 8 of this Appendix. At least every 60 Days, the Lafarge Companies shall submit periodic Demonstration Period Reports to U.S. EPA and the Affected State during the Demonstration Period. Each Demonstration Period Report shall include the data collected as required in this paragraph.

20. Within 60 Days following completion of the Demonstration Period, the Lafarge Companies shall submit a Final Demonstration Report to U.S. EPA and the Affected State, based upon

and including all of the data collected during the Demonstration Period including data from Startup, Shut Down and Malfunction events, that identifies proposed 30-Day Rolling Average Emission Limits for each pollutant (NO_x and/or SO_2) at an Affected Kiln subject to the requirements of this Appendix. For the Seattle Kiln, Joppa Kiln 1, Tulsa Kiln 1 and Tulsa Kiln 2, the Final Demonstration Report shall propose separate 30-Day Rolling Average Emission Limits for each Affected Kiln for NO_x for Kiln Operation with and without tire-derived fuel. Each 30-Day Rolling Average Emission Limit for NO_x and SO_2shall be based upon an analysis of continuous emissions monitoring system (CEMS) data and clinker production data collected at the Affected Kiln during the Demonstration Period. Total pounds of an affected pollutant emitted during an individual Operating Day will be calculated from collected CEMS data for that Day. Hours or Days when there is no Kiln Operation may be excluded from the analyses. However, the Lafarge Companies shall provide an explanation in the Demonstration Report for any data excluded from the analyses. In any event, Lafarge shall include all data required to be collected during the Demonstration Period in the Final Demonstration Report.

21. The Lafarge Companies shall propose 30-Day Rolling Average Emission Limits in the Final Demonstration Report in accordance with the definition of that term in the Consent Decree. The final 30-Day Rolling Average Emission Limit for an Affected Kiln shall be calculated in accordance with the following formula:

$$X = \bar{u} + 1.645\sigma$$

where:

X = 30-Day Rolling Average Emission Limit (lbs/ton clinker)
$\bar{u}$ = mean of all of the 30-Day averages
σ = standard deviation of all of the 30-Day averages

22. The Final Demonstration Report for an Affected Kiln (in the case of Ravena, Kilns), shall be subject to Section XI (Review and Approval of Submittals) of the Consent Decree and the Dispute Resolution provisions of Section XV of the Consent Decree.