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WHEREAS, Plaintiff, the United States of America, on behalf of the United States Environmental Protection Agency (“U.S. EPA” or “EPA”) has, simultaneously with the lodging of this Consent Decree, filed a Complaint against Defendants Lehigh Cement Company LLC (“Lehigh”) and Lehigh White Cement Company LLC (“Lehigh White”) (collectively, Lehigh and Lehigh White are the “Defendants,” each individually a “Defendant”), pursuant to Sections 113(b), 165 and 167 of the Clean Air Act (“Clean Air Act” or “Act”), 42 U.S.C. §§ 7413(b), 7475, and 7477, for injunctive relief and the assessment of civil penalties for alleged violations of one or more of the following statutory and regulatory requirements of the Act at one or more of Lehigh’s nine (9) Portland cement plants and Lehigh White’s two (2) Portland cement plants, collectively located in eight (8) different states within the United States: the Prevention of Significant Deterioration (“PSD”) provisions of the Act, 42 U.S.C. §§ 7470-7492; the non-attainment New Source Review (“Non-attainment NSR” or “NNSR”) provisions of the Act, 42 U.S.C. §§ 7501-7515; and the federally-approved and enforceable state implementation plans (“SIPs”), which incorporate and/or implement the above-listed federal PSD and/or Non-attainment NSR requirements;

WHEREAS, the State of Indiana, the State of Iowa, the State of Maryland, the State of New York, the Pennsylvania Department of Environmental Protection, the Bay Area Air Quality Management District and the Jefferson County Board of Health (collectively, “State Plaintiffs”) have joined in the Complaint filed in this action;

WHEREAS, this Consent Decree sets forth injunctive relief by which each Defendant has agreed to substantially reduce emissions of sulfur dioxide and nitrogen oxide at each Defendant’s respective Portland cement manufacturing facilities in the United States, which collectively

include fourteen (14) Kilns at the eleven (11) Portland cement manufacturing facilities (the “Facilities”), in such a manner that would resolve the alleged violations of PSD and NNSR;

WHEREAS, each Defendant has expressed concern that the increased operation of controls to achieve the lower emissions limits for nitrogen oxide (“NO_x”) required under Section V of the Consent Decree may, under certain atmospheric conditions, increase the risk of detached plumes at one or more of the Facilities;

WHEREAS, Section XV of the Consent Decree (Detached Plume Event) addresses this concern by requiring each Defendant to (1) follow specified procedures in order to demonstrate that a Detached Plume Event has occurred and (2) implement approved protocols to address these events;

WHEREAS, U.S. EPA has provided notice of the violations alleged herein to Lehigh, to Lehigh White and to each of the states where the Facilities identified in the Complaint are located pursuant to Section 113(a) of the Act, 42 U.S.C. § 7413(a), and each Defendant stipulates that it has received actual notice of the violations alleged in the Complaint with respect to its Facilities and that it does not contest the adequacy of the notice provided;

WHEREAS, each Defendant denies the allegations of the Complaint and does not admit that it has 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; 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), 165, 167, and 304(a) of the Act, 42 U.S.C. §§ 7413(b), 7475, 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, each Defendant waives all objections and defenses it may have to the Court's jurisdiction over this action, to the Court's jurisdiction over that Defendant, and to venue in this District. For the purposes of the Complaint filed by the Plaintiffs in this matter and resolved by the Consent Decree, each Defendant waives any defense or objection based on standing.

2. For purposes of this Consent Decree, each Defendant agrees that the Complaint states claims upon which relief may be granted pursuant to Sections 113 and 167 of the Act, 42 U.S.C. §§ 7413 and 7477, and implementing federal and state laws and regulations.

II. APPLICABILITY

3. The obligations of this Consent Decree apply to and are binding upon the United States; the State of Indiana, the State of Iowa, the State of Maryland, the State of New York, the Pennsylvania Department of Environmental Protection, the Bay Area Air Quality Management District, and the Jefferson County Board of Health; and upon Lehigh and Lehigh White, and any successors, assigns, or other entities or persons otherwise bound by law. Provided, however, all

Parties agree that: (a) Lehigh shall only be responsible for, and may only be penalized for violations of or noncompliance with, obligations of this Consent Decree applicable to Lehigh, the Lehigh Facilities or the Lehigh Kilns; and (b) Lehigh White shall only be responsible for, and may only be penalized for violations of or noncompliance with, obligations of this Consent Decree applicable to Lehigh White, the Lehigh White Facilities or the Lehigh White Kilns.

4. Except for (a) a transfer by Lehigh of any Lehigh Facility to an entity majority-owned by Lehigh Cement Company LLC and included within the definition of Lehigh Affiliates in Paragraph 8.pp or (b) a transfer by Lehigh White of any Lehigh White Facility to a Lehigh White Affiliate, at least thirty (30) Days prior to any transfer of ownership or operation of any Facility identified in Paragraph 8.s, the Defendant intending to transfer said Facility 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 (with confidential provisions marked as “Confidential Business Information” (“CBI”) pursuant to 40 C.F.R. Part 2), to U.S. EPA, the United States, and the Affected State Plaintiff(s) in accordance with Section XX (Notices) of this Consent Decree. The Defendant may, in its sole discretion, request a CBI determination by the United States at the time of or any time after submitting the proposed written agreement. Nothing in this Consent Decree shall limit Defendant’s rights to challenge and/or appeal the United States’ CBI determination. No transfer of ownership or operation of a Facility identified in Paragraph 8.s, whether in compliance with the procedures of this Paragraph or otherwise, shall relieve a Defendant’s obligation to ensure that the terms of the Decree are implemented, unless:

a. the transferee agrees, in writing, to undertake the obligations required by Section V (NO_x Control Technology, Emission Limits, and Monitoring Requirements), Section

VI (SO₂ Control Technology, Emission Limits, and Monitoring Requirements), Section VII (Other Injunctive Relief), Section VIII (Temporary Cessation of Kiln Operation), Section 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 (Detached Plume Event), Section XVI (Dispute Resolution), Section XVII (Information Collection and Retention) and the requirements of Appendices A-C of this Consent Decree applicable to such Facility and further agrees in writing to be substituted for the applicable Defendant 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 Plaintiff(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 Plaintiff(s) consent, in writing, to relieve the applicable Defendant of its 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 XXIII (Modification).

Provided that a transfer is made in accordance with the requirements of subparagraphs (a) through (d) above, the applicable Defendant shall be relieved of obligations and liability under the Consent Decree for that Facility.

Upon the transfer of a Lehigh Facility by Lehigh to a Lehigh Affiliate included within the definition of Paragraph 8.pp or the transfer by Lehigh White of any Lehigh White Facility to a Lehigh White Affiliate, the transferee will be bound by this Consent Decree upon transfer as an

assignee. Provided that such transfer of a Facility to an affiliate is made in accordance with the requirements of this Paragraph 4, the Defendant entity which transferred the Facility shall be relieved of liability and obligations under the Decree for that Facility. The applicable Defendant shall provide written notice of a prospective transfer, together with a copy of the written agreement, to U.S. EPA, the United States, and the Affected State Plaintiff(s) in accordance with Section XX (Notices) of this Consent Decree thirty (30) Days prior to such transfer.

5. Any attempt to transfer ownership or operation of any of the Facilities identified in Paragraph 8.s, or any portion thereof, without complying with Paragraph 4 constitutes a violation of this Consent Decree.

6. Each Defendant 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 perform work required under this Consent Decree. Each Defendant shall condition any such contract upon performance of the work in conformity with the terms of this Consent Decree.

7. In any action to enforce this Consent Decree, no Defendant shall 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

8. 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 at a Facility, the maximum allowable rate of emission of a specified air pollutant from such Kiln or Kilns, as applicable, and shall be expressed as pounds (lbs) of such air pollutant emitted per Ton of clinker produced. Compliance with the 30-Day Rolling Average Emission Limit shall be determined by calculating the 30-Day Rolling Average Emission Rate and comparing that with the 30-Day Rolling Average Emission Limit.

b. “30-Day Rolling Average Emission Rate” shall mean, with respect to each Kiln, the rate of emission of NO_x or SO₂, respectively, expressed as pounds (lbs) per Ton of clinker produced at such Kiln and calculated in accordance with the following procedure: first, sum the total pounds of the pollutant in question emitted from the specified Kiln 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) and Section VI.C (SO₂ Continuous Emission Monitoring Systems); second, sum the total Tons of clinker produced by that Kiln during the same Operating Day and previous twenty-nine (29) Operating Days; and third, divide the total number of pounds of that pollutant emitted from the Kiln in question during the thirty (30) Operating Days referred to above by the total Tons of clinker produced at such Kiln during the same thirty (30) Operating Days. A new 30-Day Rolling Average Emission Rate shall be calculated for each new Operating Day. Only emission data determined to be valid under 40 C.F.R. § 60.13 or substituted data in accordance with Paragraphs 19 and 28 shall be included. In calculating each 30-Day Rolling Average Emission Rate, the total pounds of that 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 Malfunction;

- c. “Affected State” shall mean any State Plaintiff or any other state having jurisdiction over a Facility addressed in this Consent Decree;
- d. “Business Day” means any Day, except for Saturday, Sunday, and federal holidays;
- e. “CD Emissions Reductions” shall mean any emissions reductions that result from any projects, controls, or any other actions utilized to comply with this Consent Decree;
- f. “CEMS” or “Continuous Emission Monitoring System” shall mean, for obligations involving NO_x and SO₂ under this Consent Decree, the total equipment and software required to sample and condition (if applicable), to analyze, and to provide a record of NO_x and SO₂ emission rates, and the raw data necessary to support the reported emission rates, and that have been installed and calibrated in accordance with 40 C.F.R. § 60.13 and 40 C.F.R. Part 60 Appendix B and Appendix F;
- g. “Combustion Control” is the method used to maintain NO_x emissions below a prescribed limitation through management of combustion parameters at the Kiln;
- h. “Commence” or “Commencement” of operation of a Control Technology shall mean to begin the introduction of the reagent employed by the Control Technology, as applicable to that technology, or when the technology is otherwise activated;
- i. “Complaint” shall mean the complaint filed by the United States and the State Plaintiffs in this action;
- j. “Consent Decree” or “Decree” shall mean this Decree and each Appendix attached hereto (listed in Section XXX (Appendices)), but in the event of any conflict between the text of this Decree and any Appendix, the text of this Decree shall control;

k. “Continuously Operate” or “Continuous Operation” shall mean, except as provided below, that when a Control Technology is installed at a Kiln, 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, except during: (1) Malfunction of the Control Technology, (2) periods where the Kiln is operating below the minimum temperature required for operation of the Control Technology, as specified in writing by the manufacturer or installation contractor (to include a Defendant when it serves as manufacturer, installer or designer of the Control Technology), or (3) for Selective Non-Catalytic Reduction System operation, Detached Plume Events. Provided, however, wherever a Control Technology involves the injection or addition of reagent, then the reagent shall be injected or added as necessary to achieve the emissions limits referenced in Table 2 and Table 3.

l. “Contractor” shall mean any person or entity retained by a Defendant to perform services on its behalf necessary to comply with the provisions of this Consent Decree;

m. “Control Technology” shall mean those technologies specified in Sections V and VI of this Decree, which may include a Selective Non-Catalytic Reduction System; Wet or Dry Scrubbers; Combustion Controls; Kiln Inherent Scrubbing (including scrubbing in the in-line raw mill); or a Lime Injection System;

n. “Day” shall mean a calendar day unless expressly stated to be a Business Day;

o. “Defendants” shall mean Lehigh Cement Company LLC and Lehigh White Cement Company, LLC;

p. “Detached Plume Event” shall mean a detached plume that meets the criteria set forth in the Section XV (Detached Plume Event) and Appendix A (Addressing Detached Plume Events);

q. “Effective Date” shall have the meaning given in Section XXI (Effective Date);

r. “Emission Limit” or “Emission Limits” shall mean the maximum allowable rate of emission of a specified air pollutant from a Kiln as specified in Paragraph 12, Table 2 (NO_x) and Paragraph 20, Table 3 (SO₂);

s. “Facilities” shall mean the following eleven (11) Portland cement manufacturing facilities used for the production of Portland cement. Each of these facilities may be referred to as a “Facility;” the Facilities listed in Subparagraphs 8.s(1) through 8.s(9) are referred to collectively as the “Lehigh Facilities,” and each individually as a “Lehigh Facility;” and the Facilities listed in Subparagraphs 8.s(10) and 8.s(11) are referred to collectively as the “Lehigh White Facilities,” and each individually as a “Lehigh White Facility”:

(1) Union Bridge Plant, 675 Quaker Hill Road, Union Bridge, MD 21791 (hereinafter “Union Bridge”);

(2) Permanente Plant, 24001 Stevens Creek Boulevard, Cupertino, CA 95015 (hereinafter “Cupertino”);

(3) Leeds Plant, 8401 Second Avenue, Leeds, AL 35094 (hereinafter “Leeds”);

(4) Tehachapi Plant, 13573 Tehachapi Boulevard, Tehachapi, CA 93561 (hereinafter “Tehachapi”);

(5) Mason City Plant, 700 25th Street NW, Mason City, IA 50401
(hereinafter “Mason City”);

(6) Evansville Plant, 537 Evansville Road, Fleetwood, PA 19522
(hereinafter “Evansville”);

(7) Redding Plant, 900 15390 Wonderland Boulevard, Redding, CA
96003 (hereinafter “Redding”);

(8) Lehigh Northeast Cement Company, 313 Lower Warren Street,
Glens Falls, NY 12801 (hereinafter “Glens Falls”);

(9) Mitchell Plant, 180 North Meridian Road, Mitchell, IN 47446
(hereinafter “Mitchell”);

(10) Lehigh White Cement Company, LLC, 200 Hokes Mill Road,
York, PA 17404 (hereinafter “York”); and

(11) Lehigh White Cement Company, LLC, 100 South Wickson Road,
Woodway, TX 76712 (hereinafter “Waco”).

t. “Kiln” 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; the Kilns listed in Subparagraphs 8.t(1) through 8.t(9) are referred to collectively as the “Lehigh Kilns,” and each individually as a “Lehigh Kiln”; and the Kilns listed in Subparagraphs 8.t(10) and 8.t(11) are referred to collectively as the “Lehigh White Kilns,” and each individually as a “Lehigh White Kiln”:

- (1) Union Bridge, Maryland: Union Bridge Kiln 1;
- (2) Cupertino, California: Cupertino Kiln 1;
- (3) Leeds, Alabama: Leeds Kiln 1;

- (4) Tehachapi, California: Tehachapi Kiln 1;
- (5) Mason City, Iowa: Mason City Kiln 1;
- (6) Fleetwood, Pennsylvania: Evansville Kiln 1, Evansville Kiln 2;
- (7) Redding, California: Redding Kiln 1;
- (8) Glens Falls, New York: Glens Falls Kiln 1;
- (9) Mitchell, Indiana: Mitchell Kiln 1, Mitchell Kiln 2, Mitchell Kiln 3;
- (10) York, Pennsylvania: York Kiln 1; and
- (11) Waco, Texas: Waco Kiln 1;

u. “Kiln Operation” shall mean any period when any raw materials are fed into the Kiln or any combustion is occurring in the Kiln or Calciner burners;

v. “Lime Injection” or “Lime Injection System” shall mean a pollution control system that injects lime or another reagent that has been demonstrated as effective in reducing SO₂ emissions into the gas stream for the purpose of reducing SO₂ emissions (including but not limited to, Hydrated Lime (Ca(OH)₂), Soda Ash - Sodium Carbonate (Na₂CO₃), Sodium Bicarbonate (NaHCO₃), and Trona – Trisodium hydrogendicarbonate dihydrate (Na₂CO₃·NaHCO₃·2H₂O));

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

x. “Mitchell New Kiln” shall mean a Kiln or Kilns that replace(s) Kilns 1, 2 and 3 at the Mitchell Facility, at which time Kilns 1, 2 and 3 will be Retired within a reasonable startup period for the New Kiln(s). The Mitchell New Kiln must be subject to both the New Source Performance Standards for Portland Cement Plants at 40 C.F.R. Part 60 Subpart F as a

new affected facility, and the National Emissions Standards for Hazardous Air Pollutants for the Portland Cement Manufacturing Industry, 40 C.F.R. Part 63, Subpart LLL, as a new kiln;

y. “NO_x” shall mean oxides of nitrogen, measured in accordance with the provisions of this Consent Decree;

z. “Non-attainment NSR” or “NNSR” 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;

aa. “Operating Day” shall mean any Day on which Kiln Operation has occurred;

bb. “Paragraph” shall mean a portion of this Decree identified by an Arabic numeral and “Subparagraph” shall mean a portion of this Decree identified by a lower case letter;

cc. “Parties” shall mean Lehigh, Lehigh White and the United States, the State of Indiana, the State of Iowa, the State of Maryland, the State of New York, the Pennsylvania Department of Environmental Protection, the Bay Area Air Quality Management District, and the Jefferson County Board of Health and their agencies and political subdivisions having jurisdiction over a Facility;

dd. “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;

ee. “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.

ff. “Section” shall mean a portion of this Decree identified by a Roman numeral;

gg. “Selective Non-Catalytic Reduction” or “SNCR” shall mean a pollution control system that injects ammonia, monomethylamine, cyanuric acid, and/or urea into the gas stream without the use of a catalyst for the purpose of reducing NO_x emissions;

hh. “SO₂” means the pollutant sulfur dioxide, measured in accordance with the provisions of this Consent Decree;

ii. “State Plaintiff,” “Affected State Plaintiff,” or “State” shall mean any of the following: the State of Indiana, the State of Iowa, the State of Maryland, the State of New York, the Pennsylvania Department of Environmental Protection, the Bay Area Air Quality Management District, and the Jefferson County Board of Health and their agencies and political subdivisions having jurisdiction over a Facility;

jj. “Temporary Cessation,” “Temporary Cessation of Kiln Operation” or “Temporarily Cease Kiln Operation,” except for planned and/or maintenance or repair outages at plants, shall mean the period when a Kiln is not in a state of Kiln Operation and the Defendant responsible for such Kiln has provided the required notice pursuant to Paragraph 37 of Section VIII (Temporary Cessation of Kiln Operation) of this Consent Decree;

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

ll. “Ton” or “Tons” shall mean short ton or short tons;

mm. “United States” shall mean the United States of America, acting on behalf of U.S. EPA;

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

oo. “Scrubber” shall mean a pollution control system that employs an absorber vessel and wet or dry scrubbing technology to achieve the reduction of sulfur dioxide emissions. This is distinct from Lime Injection;

pp. “Lehigh Affiliates” shall mean Lehigh Cement Company LLC, Lehigh Southwest Cement Company, and Lehigh Northeast Cement Company; and

qq. “Lehigh White Affiliate” shall mean Aalborg Cement Company, Inc., Cemex Inc., White Cement Company LLC, Cemex Construction Materials Florida, LLC, Vianini Pipe, Inc., CEMEX Construction Materials Atlantic, LLC, and Aalborg Portland US, Inc.

IV. CIVIL PENALTY

9. Within thirty (30) Days after the Effective Date of this Consent Decree, Lehigh shall pay to the United States as a civil penalty the sum of \$650,000 together with interest accruing from the Effective Date of the Consent Decree through the date of payment, at the rate specified in 28 U.S.C. § 1961 as of the Effective Date. Lehigh shall pay the civil penalty due under this Paragraph 9 by FedWire Electronic Funds Transfer (“EFT”) to the U.S. Department of Justice in accordance with written instructions to be provided to Lehigh following the Effective Date of the Consent Decree by the Financial Litigation Unit of the U.S. Attorney’s Office for the Eastern District of Pennsylvania, 615 Chestnut Street, Suite 1250, Philadelphia, PA 19106. At the time of payment, Lehigh 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. Lehigh Cement Company LLC, et al.* and shall reference the civil action number and DOJ case number 90-5-2-1-

08531/1, to the United States in accordance with Section XX 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

10. Within thirty (30) Days after the Effective Date of this Consent Decree, Lehigh shall pay civil penalties, together with interest accruing from the Effective Date of the Consent Decree through the date of payment at the rate identified in Paragraph 9, in the following amounts to the following State Plaintiffs in accordance with the payment instructions below:

TABLE 1

| State | Amount | Payment Instructions |
|--------------|---------------|---|
| Indiana | \$69,265 | Payment shall be by check made out to the “Environmental Management Special Fund” and shall be mailed to Indiana Department of Environmental Management Office of Legal Counsel, IGCN, Room N1307, 100 North Senate Avenue, Indianapolis, IN 46204-2273 |
| Iowa | \$69,400 | Check payable to “State of Iowa” and submitted to attorney David S. Steward, Iowa Attorney General’s Office, Environmental Law Division, Hoover State Office Building, 1305 E. Walnut Street, 2nd Floor, Des Moines, Iowa 50319 |
| Maryland | \$134,030 | Payment shall be made by check or money order to the “Maryland Department of the Environment/Clean Air Fund,” referencing the invoice number provided by the Department and shall be mailed to: Maryland Department of the Environment, P.O. Box 2037, Baltimore, MD 21203-2037 |
| New York | \$58,023 | The payment, which may be used to fund an air pollution prevention and/or monitoring project, shall be made by certified check payable to the “State of New York,” and delivered to Michael J. Myers, Senior Counsel, |

| | | |
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| | | Environmental Protection Bureau, New York State Attorney General, The Capitol, Albany, NY 12224 |
| Pennsylvania Department of Environmental Protection | \$113,631 | The payment shall be by a corporate check or the like made payable to the "Commonwealth of Pennsylvania - Clean Air Fund," and forwarded to Air Quality Program Manager, Pennsylvania Department of Environmental Protection, Air Quality Program, 909 Elmerton Avenue, Harrisburg, PA 17110-8200 |
| Jefferson County Board of Health | \$86,298 | Check made payable to the "Jefferson County Board of Health," and mailed to Jefferson County Department of Health Attn: Jonathan Stanton, P.E., 1400 Sixth Avenue South, Birmingham, Alabama 35233 |
| Bay Area Air Quality Management District | \$119,353 | Payment shall be by corporate or certified check made payable to "Bay Area Air Quality Management District" and mailed to: Brian C. Bunger, District Counsel 375 Beale Street, Suite 600, San Francisco, CA 94105-2001 |
| TOTAL | \$650,000 | |

11. Lehigh shall not deduct any penalties paid under this Section in calculating its federal or state or local income tax.

V. NO_x CONTROL TECHNOLOGY, EMISSION LIMITS AND MONITORING REQUIREMENTS

A. *NO_x Control Technology and Emission Limits*

12. Subject to Section VIII (Temporary Cessation of Kiln Operation), Lehigh and Lehigh White shall install and Commence Continuous Operation of each NO_x Control Technology and comply with the Emission Limits for the specific Kilns within their respective systems according to Table 2 below by no later than the date specified in Table 2 below. Each Defendant shall Continuously Operate each specified NO_x Control Technology as applicable to

each of its Kilns, at all times of Kiln Operation, by no later than the date specified in Table 2 below.

TABLE 2

| Kiln | NO_x Control Technology to be Continuously Operated | Deadline for Installation and Commencement of Continuous Operation of NO_x Control Technology and Compliance with 30-Day Rolling Average Emission Limit for NO_x | 30-Day Rolling Average Emission Limit (lbs NO_x/Ton of clinker) |
|-------------------------------------|--|---|--|
| Union Bridge Kiln 1 | SNCR | Effective Date + 6 months | 2.1 |
| Cupertino Kiln 1 | SNCR | Effective Date + 12 months | 2.0 |
| Leeds Kiln 1 | SNCR | Effective Date + 6 months | 2.5 |
| Tehachapi Kiln 1 | SNCR | Effective Date + 12 months | 1.5 |
| Mason City Kiln 1 | SNCR | Effective Date + 12 months | 1.5 |
| Evansville Kiln 1 | SNCR | Effective Date + 6 months | 3.0 |
| Evansville Kiln 2 | SNCR | Effective Date + 6 months | 3.0 |
| Redding Kiln 1 | Combustion Controls and/or SNCR | Effective Date + 24 months | 1.95 |
| Glens Falls Kiln 1 | SNCR | Effective Date + 6 months | 2.5 |
| Mitchell Kiln 1 (Mitchell Option B) | SNCR | Effective Date + 20 months | 3.0 |
| Mitchell Kiln 2 (Mitchell Option B) | SNCR | Effective Date + 24 months | 3.0 |
| Mitchell Kiln 3 (Mitchell Option B) | SNCR | Effective Date + 24 months | 3.0 |

| | | | |
|---|---------------------------------------|--|------|
| Mitchell New Kiln(s) (Mitchell Option A) | SNCR | To Be Determined in accordance with Paragraph 14 | 1.5 |
| York Kiln 1 | Combustion Controls and/or SNCR | Effective Date + 6 months | 3.88 |
| Waco Kiln 1 | SNCR | Effective Date + 6 months | 8.2 |

13. For each Kiln in Table 2, beginning on the Operating Day which is the 30th Operating Day after the date specified in Table 2, the responsible Defendant shall demonstrate compliance, and thereafter maintain compliance, with the 30-Day Rolling Average Emission Limit for NO_x specified in Table 2 for that Kiln.

14. ***Mitchell Compliance Election:*** Lehigh shall provide notice no later than 8 months after the Effective Date, as to whether it has elected Mitchell Option A or Mitchell Option B. Failure to provide notice by the deadline shall be deemed an election of Mitchell Option B.

- a. “Mitchell Option A” means that Mitchell Kiln 1, Mitchell Kiln 2 and Mitchell Kiln 3 shall be Retired not later than 54 months following the Effective Date or one hundred eighty (180) Days following the initial startup of a new Kiln or Kilns at the Mitchell plant, whichever is first. In no event will operation of Mitchell Kilns 1, 2, or 3 occur after the date 54 months following the Effective Date, unless SNCR has been installed and Continuously Operated and the Kiln is meeting the emission limits in Table 2, listed as Mitchell Option B.
- b. If Mitchell Option A is elected, no later than 3 years and 3 months following the Effective Date, Lehigh shall commence construction of a new Kiln at Mitchell within the meaning of Section 169 of the Act, 42 U.S.C. 7479, and 40 C.F.R. §

52.21(b)(8) and (9). If Lehigh fails to commence construction by that time, Lehigh shall be deemed to have elected Option B and be required to meet, and to have been meeting, the requirements for Option B listed in Table 2. Lehigh shall notify EPA and the State of Indiana within thirty (30) Days of commencing construction. “Mitchell Option B” means that Mitchell Kilns 1, 2, and 3 shall meet the requirements of Table 2 or shall be Retired (or in Temporary Cessation per Section VIII) prior to the applicable deadlines in Table 2.

B. NO_x Continuous Emission Monitoring Systems

15. At each of its respective Kilns identified in Paragraph 8.t, each Defendant shall install and make operational by no later than (a) 12 months after the Effective Date or (b) the Deadline indicated in Table 2, whichever is earlier, a NO_x continuous emissions monitoring system (“CEMS”) at each stack, or other outlet if no stack exists, which collects emissions from such Kiln in accordance with the requirements of 40 C.F.R. Part 60. In addition, the Mason City kiln coal mill stack NO_x CEMS shall be installed by Lehigh and made operational by no later than 12 months after the Effective Date, in accordance with 40 CFR Part 60.

16. For each of its respective Kilns identified in Paragraph 8.t, beginning on or before the date that a NO_x CEMS is required pursuant to Paragraph 15, each Defendant shall determine and record the daily clinker production rates by either one of the two following methods:

a. Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates of the amount of clinker produced in tons of mass per hour. The system of measuring hourly clinker production must be maintained within ± 5 percent accuracy; or

b. Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates of the amount of feed to the Kiln in tons of mass per hour. The system of measuring feed must be maintained within ± 5 percent accuracy.

If a Defendant chooses the methodology set forth in Paragraph 16.b to determine the daily clinker production rates at a Kiln, it shall calculate the hourly clinker production rate using a kiln-specific feed-to-clinker ratio based on reconciled clinker production determined for accounting purposes and recorded feed rates. This ratio should be updated no less frequently than once per month. If this ratio changes at clinker reconciliation, the new ratio must be used going forward, but shall not be applied retroactively to change clinker production rates previously estimated.

17. Except during CEMS breakdowns, repairs, calibration checks, zero span adjustments, and any stack repairs that require the removal and recalibration of the CEMS, the CEMS required pursuant to Paragraph 15 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 and Emission Limits), as applicable, of this Consent Decree.

18. Each NO_x CEMS required pursuant to Paragraph 15 shall monitor and record the applicable NO_x emission rate from each Kiln stack in units of parts per million (ppm), lbs of NO_x per hour, and 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.

19. For purposes of this Consent Decree, all emissions of NO_x from Kilns shall be measured by CEMS. During any time when the CEMS is inoperable or otherwise not measuring

emissions of NO_x from any Kiln, the Defendant responsible for such Kiln 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.

**VI. SO₂ CONTROL TECHNOLOGY, EMISSION LIMITS
AND MONITORING REQUIREMENTS**

A. SO₂ Control Technology and Emission Limits for All Kilns Except Cupertino Kiln 1

20. Subject to Section VIII (Temporary Cessation of Kiln Operation), Lehigh and Lehigh White shall install and Commence Continuous Operation of each SO₂ Control Technology and comply with the Emission Limits for the specific Kilns, except for Cupertino Kiln 1, within their respective systems according to Table 3 below by no later than the date specified in Table 3 below. Each Defendant shall Continuously Operate each SO₂ Control Technology as applicable to each of its Kilns, other than Cupertino Kiln 1, at all times of Kiln Operation by no later than the date specified in Table 3 below.

TABLE 3

| Kiln | SO₂ Control Technology to be Continuously Operated | Deadline for Installation and Commencement of Continuous Operation of SO₂ Control Technology and Compliance with 30-Day Rolling Average Emission Limit for SO₂ | 30-Day Rolling Average Emission Limit (lbs SO₂/Ton of clinker) |
|---------------------|--|---|--|
| Union Bridge Kiln 1 | Kiln inherent Scrubbing and/or Lime Injection | Effective Date + 30 Days | 0.4 |
| Leeds Kiln 1 | Kiln Inherent Scrubbing and/or Lime Injection | Effective Date + 30 Days | 0.4 |

| | | | |
|------------------------------|---|--|-----|
| Tehachapi Kiln 1 | Kiln inherent Scrubbing and/or Lime Injection | Effective Date + 24 months | 0.4 |
| Mason City Kiln 1 | Wet Scrubber | Effective Date + 30 Days | 0.8 |
| Evansville Kiln 1 | Lime Injection | Effective Date + 90 Days | 0.6 |
| Evansville Kiln 2 | Lime Injection | Effective Date + 90 Days | 0.6 |
| Redding Kiln 1 | Kiln inherent scrubbing | Effective Date + 30 Days | 0.4 |
| Glens Falls Kiln 1 | Kiln inherent scrubbing and/or Lime Injection | Effective Date + 6 months | 0.4 |
| Mitchell Kiln 1 (Option B) | Lime Injection | Effective Date + 20 months | 2.5 |
| Mitchell Kiln 2 (Option B) | Lime Injection | Effective Date + 24 months | 2.5 |
| Mitchell Kiln 3 (Option B) | Lime Injection | Effective Date + 24 months | 2.5 |
| Mitchell New Kiln (Option A) | Kiln inherent scrubbing and/or Lime Injection | Deadline to be determined per Paragraph 22 | 0.4 |
| York Kiln 1 | Kiln inherent scrubbing | Effective Date + 30 Days | 2.8 |
| Waco Kiln 1 | Lime Injection | Effective Date + 12 months | 7.5 |

21. For each Kiln in Table 3, beginning on the Operating Day which is the 30th Operating Day after the deadline specified in Table 3, the responsible Defendant shall demonstrate compliance and thereafter maintain compliance with the 30-Day Rolling Average Emission Limit for SO₂ specified in Table 3 at that Kiln.

22. ***Mitchell Compliance Election:*** Lehigh shall provide notice no later than 8 months after the Effective Date, as to whether it has elected Mitchell Option A or Mitchell Option B. Failure to provide notice by the deadline shall be deemed an election of Mitchell Option B.

- a. “Mitchell Option A” means that Mitchell Kiln 1, Mitchell Kiln 2 and Mitchell Kiln 3 shall be Retired not later than 54 months following the Effective Date or one hundred eighty (180) Days following the initial startup of a new Kiln or Kilns at the Mitchell plant, whichever is first. In no event will operation of Mitchell Kilns 1, 2, or 3 occur after the date 54 months following the Effective Date, unless a Lime Injection System has been installed and Continuously Operated and the Kiln is meeting the emission limits in Table 3, listed as Mitchell Option B.
- b. If Mitchell Option A is elected, no later than 3 years and 3 months following the Effective Date, Lehigh shall commence construction of a new Kiln at Mitchell within the meaning of Section 169 of the Act, 42 U.S.C. 7479, and 40 C.F.R. § 52.21(b)(8) and (9). If Lehigh fails to commence construction by that time, Lehigh shall be deemed to have elected Option B and be required to meet, and to have been meeting, the requirements for Option B listed in Table 3. Lehigh shall notify EPA and the State of Indiana within thirty (30) Days of commencing construction. “Mitchell Option B” means that Mitchell Kilns 1, 2, and 3 shall meet the requirements of Table 3 or shall be Retired (or in Temporary Cessation per Section VIII) prior to the applicable deadlines in Table 3.

B. SO₂ Control Technology and Emission Limit for Cupertino Kiln 1

23. Lehigh shall comply with all terms and conditions set forth in Appendix C (Test-and-Set Protocol for SO₂ Emission Limit For the Cupertino Kiln) to establish a 30-Day Rolling Average Emission Limit for SO₂ applicable to the Cupertino Kiln (also referenced elsewhere in this Consent Decree as Cupertino Kiln 1). Upon the commencement of the Demonstration Period, Lehigh shall Continuously Operate the Lime Injection System for the Cupertino Kiln at all times of Kiln Operation.

24. Within thirty (30) Operating Days after approval, conditional approval, or partial approval by U.S. EPA pursuant to Section XI (Review and Approval of Submittals) of any final 30-Day Rolling Average Emission Limit for SO₂ for the Cupertino Kiln established pursuant to Section V of Appendix C, Lehigh shall achieve and maintain continuous compliance with that 30-Day Rolling Average Emission Limit, including during periods of Startup, Shutdown, and Malfunction.

25. Until such time as a final 30-Day Rolling Average Emission Limit for SO₂ becomes effective for the Cupertino Kiln, pursuant to Paragraph 24 and Section V of Appendix C, Lehigh shall meet the following limits:

- a. Upon the commencement of the Demonstration Period, Lehigh shall meet a Demonstration Period 30-Day Rolling Average Emission Limit for SO₂ for the Cupertino Kiln of 2.1 lbs SO₂/Ton of clinker.
- b. Upon submittal to EPA as part of a Demonstration Report of a proposed 30-Day Rolling Average Emission Limit for SO₂ for the Cupertino Kiln pursuant to Paragraph V.1 of Appendix C, Lehigh shall meet the proposed limit for that Kiln.

C. SO₂ Continuous Emission Monitoring Systems

26. At each of its respective Kilns identified in Paragraph 8.t of this Decree, each Defendant shall install and make operational by no later than (a) 12 months after the Effective Date; (b) the Deadline indicated in Table 3; or (c) for the Cupertino Kiln, 3 months after the Effective Date, whichever is earlier for each Kiln, an SO₂ CEMS at each stack, or other outlet if no stack exists, which collects emissions from such Kiln in accordance with the requirements of 40 C.F.R. Part 60. In addition, the Mason City kiln coal mill stack SO₂ CEMS shall be installed by Lehigh and made operational by no later than 12 months after the Effective Date, in accordance with 40 CFR Part 60.

27. Except during CEMS breakdowns, repairs, calibration checks, zero span adjustments, and any stack repairs that require the removal and recalibration of the CEMS, the CEMS required pursuant to Paragraph 26 shall be operated at all times during Kiln Operation. Each such CEMS shall be used at each Kiln to demonstrate compliance with the SO₂ Emission Limits established in Sections VI.A and B (SO₂ Control Technology and Emission Limits) of this Consent Decree.

28. Each SO₂ CEMS required pursuant to Paragraph 26 shall monitor and record the applicable SO₂ emission rate from each Kiln stack in units of ppm, lbs of SO₂ per hour, and lbs of SO₂ 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.

29. For purposes of this Consent Decree, all emissions of SO₂ from each Kiln shall be measured by CEMS.

30. During any time when the CEMS is inoperable or otherwise not measuring emissions of SO₂ from any Kiln, the Defendant responsible for such Kiln 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.

VII. OTHER INJUNCTIVE RELIEF

31. Lehigh shall implement the Environmental Mitigation Projects (“Project” or “Projects”) described in Appendix B (Environmental Mitigation Projects) to this Consent Decree.

32. Lehigh shall maintain, and, within thirty (30) Days upon U.S. EPA’s request, provide to U.S. EPA all documents that substantiate work completed on the Projects in accordance with Section XX (Notices).

33. Lehigh certifies that Lehigh is not otherwise required by law to perform any of the Projects, that Lehigh is unaware of any other person who is required by law to perform any of the Projects, and that Lehigh will not use any of the Projects, or portion thereof, to satisfy any obligations that it may have under other applicable requirements of law. Lehigh certifies that it has not, and will not, deduct any costs in implementing Section VII (Other Injunctive Relief), in calculating its federal or state income taxes.

34. Beginning 6 months after the Effective Date of this Consent Decree, and continuing until completion of each Project, Lehigh shall provide U.S. EPA with semi-annual or annual updates (as applicable) concerning the progress of the Project in the semi-annual or annual reports required (as applicable) in Section XII (Reporting Requirements) of this Consent Decree.

35. Within sixty (60) Days following the completion of each Project required under this Consent Decree, Lehigh shall submit to U.S. EPA a report that documents the date that the Project was completed, Lehigh’s results from implementing the Project, including the emission

reductions or other environmental benefits achieved (including the emission reductions achieved for NO_x and SO₂), and the money expended by Lehigh in implementing the Project.

36. Lehigh shall state in any public statement, oral or written, in print, film, or other media, made by Lehigh making reference to the Projects under this Decree, from the date of its execution of this Decree, that the actions and expenditures were required as part of a negotiated environmental consent decree to resolve claims that Lehigh is alleged to have violated the Clean Air Act.

VIII. TEMPORARY CESSATION OF KILN OPERATION

37. If a Defendant has Temporarily Ceased Kiln Operation of any Kiln on the date by which such Kiln is required to install and/or Continuously Operate any Control Technology at that Kiln under Section V (NO_x Control Technology, Emission Limits and Monitoring Requirements) or Section VI (SO₂ Control Technology, Emission Limits and Monitoring Requirements), the Defendant responsible for such Kiln shall provide written notice within ten (10) Days after such Temporary Cessation began, specifying the date on which such period of Temporary Cessation began. The applicable Defendant shall provide such written notice to EPA and the Affected State Plaintiff pursuant to Section XX (Notices).

38. If a Defendant has provided the written notice as required in Paragraph 37, above, that Defendant shall not be required to install and Continuously Operate the Control Technology at that Kiln by the dates required in Section V (NO_x Control Technology, Emission Limits and Monitoring Requirements) and Section VI (SO₂ Control Technology, Emission Limits and Monitoring Requirements) of this Consent Decree with respect to that Kiln. However, that Defendant shall not recommence Kiln Operation after the date required in Section V (NO_x Control Technology, Emission Limits and Monitoring Requirements) and Section VI (SO₂

Control Technology, Emission Limits and Monitoring Requirements) of this Consent Decree with respect to that Kiln unless that Defendant has: (1) installed and Commenced Continuous Operation of the Control Technology required by this Consent Decree for that Kiln; and (2) commenced compliance with all requirements for that Kiln contained in Section V (NO_x Control Technology, Emission Limits and Monitoring Requirements) and Section VI (SO₂ Control Technology, Emission Limits and Monitoring Requirements). In addition, Defendant shall provide notice to U.S. EPA within thirty (30) Days after recommencing Kiln Operation. If that Defendant recommences Kiln Operation without installing and Commencing Continuous Operation of the Control Technology required under this Decree and/or does not demonstrate compliance with all requirements for that Kiln contained in Section V (NO_x Control Technology, Emission Limits and Monitoring Requirements) and Section VI (SO₂ Control Technology, Emission Limits and Monitoring Requirements), that Defendant shall be liable for stipulated penalties pursuant to Section XIII (Stipulated Penalties).

39. Notwithstanding Paragraphs 37 and 38, above, if a Defendant Temporarily Ceases Kiln Operation for 24 consecutive months subsequent to the Effective Date of this Consent Decree, then prior to recommencing Kiln Operation at any Kiln, the Defendant responsible for such Kiln 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 Non-attainment NSR provisions of the Act, 42 U.S.C. §§ 7501-7515; or (2) the federally-approved and enforceable SIPs that incorporate and/or implement the federal PSD and/or Non-attainment NSR requirements, as applicable.

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

40. Prohibition. Each Defendant shall neither generate nor use any CD Emissions Reductions: as netting reductions; as emissions offsets; or to apply for, obtain, trade, or sell any emission reduction credits. Baseline actual emissions for each unit during any 24-month period selected by a Defendant shall be adjusted downward to exclude any portion of the baseline emissions that would have been eliminated as CD Emissions Reductions had said Defendant been complying with this Consent Decree during that 24-month period. Any plant-wide applicability limits (“PALs”) or PAL-like limits that apply to emissions units addressed by this Consent Decree must be adjusted downward to exclude any portion of the baseline emissions used in establishing such limit(s) that would have been eliminated as CD Emissions Reductions had the Defendant responsible for such units been complying with this Consent Decree during such baseline period.

41. Outside the Scope of the Prohibition. Nothing in this Section IX is intended to prohibit a Defendant from seeking to:

a. Use or generate emission reductions from emissions units that are covered by this Consent Decree to the extent that the proposed emission reductions represent the difference between CD Emissions Reductions and more stringent control requirements that the Defendant may elect to accept for those emissions units in a permitting process;

b. Use or generate emission reductions from emissions units that are not subject to an emission limitation or control requirement pursuant to this Consent Decree; or

c. Use CD Emissions Reductions for compliance with any rules or regulations designed to address regional haze or the non-attainment status of any area (excluding

PSD and non-attainment NSR rules, but including, for example, Reasonably Available Control Technology (RACT) rules) that apply to the Facility; provided, however, that the Defendant shall not be allowed to trade or sell any CD Emissions Reductions.

X. PERMITS

42. Where any compliance obligation under this Consent Decree requires a Defendant to obtain a federal, State, or local permit or approval, that Defendant 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. The inability of a Defendant to obtain a permit in adequate time to allow compliance with the deadlines stated in this Consent Decree shall be considered a Force Majeure event if the Defendant demonstrates that it exercised best efforts to timely fulfill its permitting obligations.

43. In addition to having first obtained any required preconstruction permits or other approvals pursuant to Paragraph 42, within 12 months after the commencement of Continuous Operation of each Control Technology required to be installed, upgraded, or operated on a Kiln under this Consent Decree or, if no Control Technology is required, within 12 months after the Effective Date of this Consent Decree, the Defendant responsible for such Kiln shall apply to the Affected State to include the requirements and limitations enumerated in this Consent Decree as non-expiring obligations in a permit or approval (other than a Title V permit) which is federally enforceable and is issued under authority independent of the Affected State's authority to issue Title V permits. The responsible Defendant shall seek the permit or approval, or the modification of an existing permit or approval, to require compliance with the following:

- a. all applicable 30-Day Rolling Average Emission Limits;

- b. all Continuous Operation or other operating requirements;
- c. all monitoring requirements of this Consent Decree, including those in Sections V (NO_x Control Technology, Emission Limits and Monitoring Requirements) and VI (SO₂ Control Technology, Emission Limits and Monitoring Requirements) of this Decree and relevant definitions from Section III (Definitions), such as the definition of 30-Day Rolling Average Emission Limit;
- d. all requirements included in Section IX (Prohibition on Netting Credits or Offsets from Required Controls); and
- e. all compliance methods imposed by this Consent Decree.

The provisions of Section XV (Detached Plume Event) and Appendix A (Addressing Detached Plume Events) of the Consent Decree apply only for purposes of the Consent Decree.

Notwithstanding the above, nothing in this Consent Decree is intended to prevent a Defendant from applying to the relevant permitting authority in an Affected State, or to prevent such permitting authority in an Affected State in its discretion and with independent authority, and not in contravention of state or federal law, from issuing a permit containing a provision that addresses occurrences of detached plumes. Following submission of the application for the permit or approval, the applicable Defendant 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. This Consent Decree shall not terminate for a particular Facility before all of the requirements in Subparagraphs (a) through (e) above and all other relevant limits and standards imposed by this Consent Decree (or requirements, limits or standards more stringent than those imposed by this Consent Decree) are incorporated as non-expiring obligations into a federally-enforceable non-Title V air permit, as described in this

Paragraph, and the applicable Defendant has submitted a complete application for a modification to its Title V operating permit for the Facility containing such relevant limits and standards, as required by Paragraph 44, below.

44. Upon issuance of any permit or approval required under Paragraph 42 or 43, the applicable Defendant shall promptly file any applications necessary to incorporate the requirements of that permit into the Title V operating permit of the appropriate Facility. The applicable Defendant shall not challenge the inclusion in any such permit of the Emission Limits expressly prescribed in this Consent Decree, but nothing in this Consent Decree is intended nor shall it be construed to require the establishment of Emission Limits other than those Emission Limits expressly prescribed in this Consent Decree nor to preclude the applicable Defendant from challenging any more stringent Emission Limits should they be proposed for reasons independent of this Consent Decree.

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

46. For each Kiln, in accordance with Section XX (Notices), the Defendant responsible for such Kiln 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 U.S. EPA participation in any public comment opportunity.

47. In lieu of incorporating the terms of the Consent Decree directly into a federally-enforceable air permit issued in accordance with Paragraphs 42 and 43, a Defendant may request an Affected State to submit or an Affected State may determine to submit the portions of the

Consent Decree specified in Paragraph 42 and 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, including but not limited to 42 U.S.C. § 7410(k). Where a Facility is located in an Affected State that does not include the terms of the Consent Decree as non-expiring obligations in a non-Title V federally enforceable permit, in accordance with Paragraphs 42 and 43, the Defendant responsible for such Facility must request an Affected State to submit the portions of the Consent Decree specified in Paragraph 42 and 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, including but not limited to 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. Each Defendant agrees 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.

48. 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 XXIV (Termination) of this Consent Decree.

XI. REVIEW AND APPROVAL OF SUBMITTALS

49. After review of any plan, report, or other document that is required to be submitted for approval pursuant to this Consent Decree, U.S. EPA, after consultation with the Affected State Plaintiff, 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.

50. If the submission is approved pursuant to Paragraph 49, the Defendant making the submission 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 49.b or 49.c, the Defendant making the submission shall, upon written direction of U.S. EPA, after consultation with the Affected State Plaintiff, take all actions required by the approved plan, report, or other item that U.S. EPA, after consultation with the Affected State Plaintiff, determines are technically severable from any disapproved portions, subject to the Defendant's right to dispute only the specified conditions or the disapproved portions, under Section XVI of this Decree (Dispute Resolution).

51. If the submission is disapproved in whole or in part pursuant to Paragraph 49.c or 49.d, the Defendant making the submission shall, within forty-five (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 Defendant making the resubmission shall proceed in accordance with the preceding Paragraph.

52. Any stipulated penalties applicable to an original submission that is disapproved in whole or in part pursuant to Paragraph 49.c or 49.d as provided in Section XIII (Stipulated Penalties) of this Decree, shall continue to accrue during the period specified in Paragraph 62, 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 the submitting Defendant's obligations under this Decree, the stipulated penalties applicable to the original submission shall be due and payable notwithstanding any subsequent resubmission.

53. 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 Plaintiff may again require the Defendant making the resubmission to correct any deficiencies in accordance with the preceding Paragraphs, or may themselves correct any deficiencies and seek stipulated penalties, subject to that Defendant's right to invoke Dispute Resolution under Section XVI of this Consent Decree.

XII. REPORTING REQUIREMENTS

54. Each Defendant shall submit the following reports: Within thirty (30) Days after the end of each half calendar year (*i.e.*, June 30, December 31) after the Effective Date, until termination of this Decree pursuant to Section XXIV (Termination), each Defendant shall submit a semi-annual report to U.S. EPA and the Affected State Plaintiffs for the immediately preceding half calendar year period that shall, with respect to the Kilns for which that Defendant is responsible:

a. Identify any and all dates on which the submitting Defendant has installed, or describe the progress of installation of, each Control Technology required for each Kiln under Section V (NO_x Control Technology, Emission Limits and Monitoring Requirements) and

Section VI (SO₂ Control Technology, Emission 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 submitting Defendant has 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.C (SO₂ Continuous Emission Monitoring Systems) and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions;

c. Provide, in electronic format and able to be manipulated with Microsoft Excel, all CEMS data collected for each Kiln, reduced to 1-hour averages, in accordance with 40 C.F.R. § 60.13(h)(2), including an explanation of any periods of CEMs downtime together with any missing data for which missing data substitution procedures were applied, under Section V.B (NO_x Continuous Emission Monitoring Systems) and Section VI.C (SO₂ Continuous Emission Monitoring Systems);

d. Demonstrate compliance with all applicable 30-Day Rolling Average Emission Limits of this Consent Decree, including but not limited to those in Section V (NO_x Control Technology, Emission Limits and Monitoring Requirements) and Section VI (SO₂ Control Technology, Emission Limits and Monitoring Requirements) of this Consent Decree;

e. Provide a complete description and status of all actions that Defendant has undertaken to comply with each of the Appendices of this Consent Decree;

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

g. 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 of the submitting Defendant's noncompliance 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.

55. If a Defendant violates, or has reason to believe that it may violate, any requirement of this Consent Decree, that Defendant shall notify the United States and the Affected State Plaintiff of such violation and its likely duration, in writing, within ten (10) Business Days of the Day that Defendant first becomes 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 and to mitigate any adverse effect of such violation. That Defendant shall investigate the cause of the violation and shall then submit an amendment to the report required under Paragraph 54, including a full explanation of the cause of the violation, within thirty (30) Days of the Day that Defendant becomes aware of the cause of the violation. Nothing in this Paragraph or the following Paragraph relieves either Defendant of its obligation to provide the notice required by Section XIV of this Consent Decree (Force Majeure) if a Defendant contends a Force Majeure event occurred or by Section XV of this Consent Decree (Detached Plume Event) if a Defendant contends a Detached Plume Event occurred.

56. Whenever any violation of this Consent Decree, or of any applicable permits required under this Consent Decree, or any other event affecting a Defendant's performance under this Decree, or the performance of any Facility for which that Defendant is responsible, may pose an immediate threat to the public health or welfare or the environment, that Defendant

shall notify U.S. EPA and the Affected State Plaintiff, orally or by electronic or facsimile transmission as soon as possible, but no later than twenty-four (24) hours after that Defendant 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.

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

58. Each report submitted by a Defendant 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.

59. The reporting requirements of this Consent Decree do not relieve Defendants 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.

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

XIII. STIPULATED PENALTIES

61. Each Defendant shall be liable for stipulated penalties to the United States and State Plaintiff(s) for violations of this Consent Decree as specified in Table 4 below, unless excused under Section XIV (Force Majeure) or Section XV (Detached Plume Event); provided, however, Lehigh shall not be liable for violations by Lehigh White and Lehigh White shall not be liable for violations by Lehigh. 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. Each Defendant reserves the right to contest whether there has been a violation in accordance with Section XVI (Dispute Resolution). Each subsequent Day of violation after a violation of a 30-Day Rolling Average Emission Limit is subject to the corresponding penalty per Day specified in Table 4, below. 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, a Defendant shall not pay a daily stipulated penalty for any Day of 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. Stipulated penalties for consecutive periods of violation of an Emission Limit shall be calculated based upon the violation of the Emission Limit for the same pollutant from the same Kiln.

TABLE 4

| Consent Decree Violation | Stipulated Penalty |
|--|--|
| a) Failure by Lehigh to pay the civil penalty as specified in Section IV (Civil Penalty) of this Consent Decree. | \$7,500 for each Day. |
| b) 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. |
| c) 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. |
| d) 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 the violation is equal to or greater than 10% in excess of the Limit. |
| e) Failure to install or Commence Continuous Operation or Continuously Operate Control Technology at a Kiln required by the deadlines established in Section V and Section VI of this Consent Decree. | \$5,000 for each Day during the first 20 Days, \$10,000 for each Day thereafter for the next 40 Days, and \$32,500 for each Day after 60 Days. |
| f) 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 VIII of this Consent Decree. | \$100,000 for the first Day upon re-commencing Kiln Operation and \$32,500 for each Day thereafter. |
| g) 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. |

| | |
|---|--|
| h) Failure to install or operate a CEMS or other monitoring device in conformance with the requirements of Section V.B (NO _x Continuous Emission Monitoring Systems) and/or Section VI.C (SO ₂ Continuous Emission Monitoring Systems). | \$1,000 for each Day for each such failure. |
| i) 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. |
| j) Failure by Lehigh to permanently Retire Mitchell Kiln 1, 2, or 3 as required by Paragraph 14.a or Paragraph 22.a of this Consent Decree, if applicable. | \$25,000 for each Day a Kiln Operates past any applicable deadline. |
| k) Failure by Lehigh to commence construction of Mitchell New Kiln in compliance with Paragraph 14.a or 22.a and Kiln Operation of Mitchell Kiln 1, 2, or 3 without complying with Paragraph 14.b or 22.b, as applicable. | \$25,000 for each Operating Day at a Kiln past this deadline. |
| l) Any other violation of this Consent Decree. | \$1,000 for each Day for each violation. |

62. Subject to the provisions of Paragraph 61, 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 State Plaintiff(s), or all of the foregoing, may seek stipulated penalties under this Section. Where both the United States and the State Plaintiff(s) seek stipulated penalties for the same violation of this Consent Decree, the responsible Defendant shall pay two thirds (2/3) of the amount in demand to the United States and one third (1/3) to the State Plaintiff(s).

63. The responsible Defendant shall pay any stipulated penalty within thirty (30) Days of receiving the United States' and/or the State Plaintiff's(s') written demand.

64. The United States may, in the unreviewable exercise of its discretion, reduce or waive stipulated penalties otherwise due the United States under this Consent Decree. A State Plaintiff may, in its unreviewable exercise of its discretion, reduce or waive stipulated penalties otherwise due the State Plaintiff under this Consent Decree.

65. 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 Plaintiff that is not appealed to the Court, the responsible Defendant shall pay accrued penalties determined to be owing, together with interest accruing from the 31st Day after the written demand in Paragraph 63, within thirty (30) Days of the effective date of the agreement or the receipt of U.S. EPA's or the State Plaintiff's decision or order.

b. If the dispute is appealed to the Court and the United States or a State Plaintiff is the prevailing party, in whole or in part, as may be determined by the Court, the responsible Defendant 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 63, within sixty (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 responsible Defendant shall pay all accrued penalties determined to be owing, together with interest accruing

from the 31st Day after the written demand in Paragraph 63, within fifteen (15) Days of receiving the final appellate court decision.

66. The responsible Defendant shall pay stipulated penalties owing to the United States and any State Plaintiff in the manner set forth and with the confirmation notices to the persons specified in Paragraphs 9 and 10, 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 responsible Defendant shall pay stipulated penalties owing to a State Plaintiff in accordance with the instructions provided below:

| State | Payment Instructions |
|--|---|
| Indiana | Payment shall be by check made out to the “Environmental Management Special Fund” and shall be mailed to: Indiana Department of Environmental Management, Office of Legal Counsel, IGCN, Room N1307, 100 North Senate Avenue, Indianapolis, IN 46204-2273 |
| Iowa | Check payable to “State of Iowa” and submitted to attorney David S. Steward, Iowa Attorney General’s Office, Environmental Law Division, Hoover State Office Building, 1305 E. Walnut Street, 2nd Floor, Des Moines, Iowa 50319 |
| Maryland | Payment shall be made by check or money order to the “Maryland Department of the Environment/Clean Air Fund,” referencing the invoice number provided by the Department and shall be mailed to: Maryland Department of the Environment, P.O. Box 2037, Baltimore, MD 21230-2037 |
| New York | The payment shall be made by certified check payable to the “State of New York,” and delivered to Michael J. Myers, Senior Counsel, Environmental Protection Bureau, New York State Attorney General, The Capitol, Albany, NY 12224 |
| Pennsylvania Department of Environmental Protection | The payment shall be by a corporate check or the like made payable to the “Commonwealth of Pennsylvania - Clean Air Fund,” and forwarded to Air Quality Program Manager, Pennsylvania Department of Environmental Protection, Air Quality Program, 909 Elmerton Avenue, Harrisburg, PA 17110-8200 |

| | |
|--|---|
| Jefferson County Board of Health | Check made payable to the “Jefferson County Board of Health,” and mailed to: Jefferson County Department of Health, Attn: Jonathan Stanton, P.E., 1400 Sixth Avenue South, Birmingham, Alabama 35233 |
| Bay Area Air Quality Management District | Payment shall be by corporate or certified check made payable to “Bay Area Air Quality Management District” and mailed to: Brian C. Bunger, District Counsel, 375 Beale Street, Suite 600, San Francisco, CA 94105-2001 |

67. No Defendant shall deduct stipulated penalties paid under this Section in calculating its federal, state, or local income tax.

68. If the responsible Defendant fails to pay stipulated penalties according to the terms of this Consent Decree, that Defendant 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 State Plaintiff from seeking any remedy otherwise provided by law for a Defendant’s failure to pay any stipulated penalties.

69. Subject to the provisions of Section XVIII 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 a State Plaintiff for a Defendant’s violation of this Consent Decree or applicable law, subject to the limitations of liability stated in Paragraphs 3 and 61 above. Where a violation of this Consent Decree is also a violation of any applicable statute or regulation, the responsible Defendant 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 93 and 94.

XIV. FORCE MAJEURE

70. “Force Majeure” (for purposes of this Consent Decree) is defined as any event arising from causes beyond the control of a Defendant, of any entity controlled by that Defendant or of that Defendant’s contractors that causes a delay or impediment to performance in complying with any obligation under this Consent Decree despite that Defendant’s best efforts to fulfill the obligation. The requirement that a Defendant 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 and the effects of such event to the greatest extent possible. Force Majeure does not include a Defendant’s financial inability to perform any obligation under this Consent Decree. Force majeure may also include a Defendant’s inability after demonstrating compliance with the requirements of Paragraph 42 to obtain a permit or approval such that there is adequate time to install, commence operation, and shake down improvements necessary to satisfy a compliance obligation under this Consent Decree.

71. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree that a Defendant claims was caused by a force majeure event, that Defendant shall provide notice orally or by electronic or facsimile transmission to the representatives of U.S. EPA and the Affected State Plaintiff(s) designated to receive notice pursuant to Section XX (Notices) within two (2) Business Days of when that Defendant first knew that the event might cause a delay. Within fifteen (15) Days thereafter, that Defendant shall provide in writing to U.S. EPA and the Affected State Plaintiff(s) an explanation and description of 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; the Defendant's rationale for attributing such delay to a force majeure event if it intends to assert such a claim; and a statement as to whether, in the opinion of that Defendant, such event may cause or contribute to an endangerment to public health, welfare or the environment. The Defendant making notice shall include with any notice all available documentation supporting the claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude that Defendant from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failure. Each Defendant shall be deemed to know of any circumstance of which that Defendant, any entity controlled by that Defendant, or that Defendant's contractors knew or should have known.

72. If U.S. EPA, after a reasonable opportunity for review and comment by the Affected State Plaintiff(s), agrees that the delay or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Consent Decree that are affected by the force majeure event will be extended by U.S. EPA, after a reasonable opportunity for review and comment by the Affected State Plaintiff(s), for such time as is necessary to complete those obligations. 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. U.S. EPA will notify the applicable Defendant in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

73. If U.S. EPA, after a reasonable period for review and comment by the Affected State Plaintiff(s), does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, U.S. EPA will notify the applicable Defendant in writing of its decision.

74. If a Defendant elects to invoke the dispute resolution procedures set forth in Section XVI (Dispute Resolution), it shall do so no later than fifteen (15) Days after receipt of U.S. EPA's notice. In any such proceeding, the Defendant claiming a force majeure event shall have the burden of demonstrating by a preponderance of the evidence 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 said Defendant complied with the requirements of Paragraphs 70 and 71, above. If said Defendant carries this burden, the delay at issue shall be deemed not to be a violation by that Defendant of the affected obligation of this Consent Decree identified to U.S. EPA and the Court.

XV. DETACHED PLUME EVENT

75. The Parties recognize that a Detached Plume Event may occur while a Defendant is operating pollution controls so as to comply with the NO_x limits prescribed in Section V (NO_x Control Technology, Emission Limits and Monitoring Requirements) of this Consent Decree, and that the Detached Plume Event may cause a disruption in that Defendant's ability to meet these limits. In order to qualify for a Detached Plume Event under this Section XV (Detached Plume Event), (1) the Detached Plume occurrence must qualify as a "Detached Plume Event" within the meaning of Appendix A (Addressing Detached Plume Events); and (2) the Defendant must comply with all requirements of this Section XV (Detached Plume Event) and Appendix A. If a Detached Plume Event occurs or has occurred that a Defendant claims has caused a disruption in its ability to meet the NO_x emissions limits set forth in Section V (NO_x Control Technology, Emission Limits and Monitoring Requirements), that Defendant shall provide notice orally or by electronic or facsimile transmission to the representatives of U.S. EPA and

the Affected State Plaintiff(s) designated to receive notice pursuant to Section XX (Notices) within three (3) Business Days of when the Defendant first knew that the Detached Plume Event might cause a disruption. Within thirty (30) Days thereafter, that Defendant shall provide in writing to U.S. EPA and the Affected State Plaintiff(s) documentation of the event, its duration, atmospheric conditions during the event, demonstration of Defendant's adherence to the Site-Specific Detached Plume Event Protocol required by Appendix A, and any other documentation showing that the disruption was attributable to a Detached Plume Event. That Defendant shall demonstrate its compliance to date with the requirements of Appendix A (Addressing Detached Plume Events). That Defendant shall include a statement as to whether, in its opinion, the Detached Plume Event caused or contributed to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall preclude a Defendant from asserting any claim of Detached Plume Event for the disruption. Each Defendant shall be deemed to know of any circumstance of which that Defendant, any entity controlled by that Defendant, or that Defendant's contractors knew or should have known.

76. If U.S. EPA, after a reasonable opportunity for review and comment by the Affected State Plaintiff(s), disagrees that a disruption in meeting the NO_x emissions limits set forth in Section V (NO_x Control Technology, Emission Limits and Monitoring Requirements) caused by a Detached Plume Event has occurred, or disagrees with the claimed duration of the disruption caused by a Detached Plume Event, U.S. EPA will notify the Defendant that provided notice pursuant to Paragraph 75 in writing that (1) U.S. EPA disagrees that such a disruption caused by a Detached Plume Event has occurred, or (2) U.S. EPA disagrees with the claimed duration of the disruption caused by a Detached Plume Event, in which case U.S. EPA will provide that Defendant with the approved duration of the disruption in that Defendant's

performance obligation to meet the emissions limits set forth in Section V (NO_x Control Technology, Emission Limits and Monitoring Requirements). For purposes of reporting under Section XII of this Consent Decree (Reporting Requirements), a Defendant may presume a claimed Detached Plume Event has occurred until otherwise notified by U.S. EPA.

77. If the Defendant that provided notice pursuant to Paragraph 75 elects to invoke the dispute resolution procedures set forth in Section XVI (Dispute Resolution), it shall do so no later than fifteen (15) Days after receipt of U.S. EPA's notice. In any such proceeding, such Defendant shall have the burden of demonstrating by a preponderance of the evidence that the disruption has been caused by the Detached Plume Event, that the duration of the disruption was warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the disruption, and that such Defendant fully complied with the requirements of Paragraphs 70, 71 and 75 and Appendix A (Addressing Detached Plume Events). If such Defendant carries this burden, or if there is no dispute as to there having been a Detached Plume Event or its duration, the disruption at issue (1) shall be deemed not to be a violation by such Defendant of its obligation under the Consent Decree to meet the NO_x emissions limits prescribed in Section V (NO_x Control Technology, Emission Limits and Monitoring Requirements) for the Detached Plume Event identified to U.S. EPA and the Court for the duration approved by U.S. EPA, or, in the case of a dispute resolved by the Court, approved by the Court; and (2) for purposes of this Consent Decree only, the NO_x emission rate for the duration of the Detached Plume Event shall not be included in such Defendant's 30-Day Rolling Average Emission Rate for NO_x.

XVI. DISPUTE RESOLUTION

78. 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. A Defendant's failure to seek resolution of a dispute under this Section shall preclude that Defendant from raising any such issue as a defense to an action by the United States or Affected State Plaintiff(s) to enforce any obligation of that Defendant arising under this Decree.

79. 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 a Defendant sends the United States and Affected State Plaintiff(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 twenty (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, after consultation with the Affect State(s), shall be considered binding unless, within ten (10) Days after the conclusion of the informal negotiation period, the Defendant sending the Notice of Dispute invokes formal dispute resolution procedures as set forth below.

80. Formal Dispute Resolution. A Defendant shall invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving on the United States and Affected State Plaintiff(s) a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting the Defendant's position and any supporting documentation relied upon by that Defendant.

81. The United States, after consultation with the Affected State Plaintiff(s), shall serve its Statement of Position within forty-five (45) Days of receipt of a Defendant's Statement of Position. The United States' Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by the United States. The United States' Statement of Position shall be binding on the Defendant that served the Statement of Position, unless that Defendant files a motion for judicial review of the dispute in accordance with the following Paragraph.

82. A Defendant may seek judicial review of the dispute by filing with the Court and serving on the United States and Affected State Plaintiff(s), in accordance with Section XX of this Consent Decree (Notices), a motion requesting judicial resolution of the dispute. The motion must be filed within ten (10) Days of receipt of the United States' Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of the Defendant's 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.

83. The United States, after consultation with the Affected State Plaintiff(s), shall respond to the Defendant's motion within the time period allowed by the Local Rules of this Court. The Defendant may file a reply memorandum, to the extent permitted by the Local Rules.

84. Standard of Review.

a. Disputes Concerning Matters Accorded Record Review. Except as otherwise provided in this Consent Decree, in any dispute brought under Paragraph 80 pertaining to the adequacy or appropriateness of plans, procedures to implement plans, schedules or any other items requiring approval by EPA under this Consent Decree; the adequacy of the

performance of work undertaken pursuant to this Consent Decree; and all other disputes that are accorded review on the administrative record under applicable principles of administrative law, the Defendant shall have the burden of demonstrating, based on the administrative record, that the position of the United States is arbitrary and capricious or otherwise not in accordance with law.

b. Other Disputes. Except as otherwise provided in this Consent Decree, in any other dispute brought under Paragraph 80, the Defendant shall bear the burden of demonstrating that its position complies with this Consent Decree, and Defendant is entitled to relief under applicable principles of law.

85. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation 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 as provided in Paragraph 65. If the Defendant that initiated dispute resolution does not prevail on the disputed issue, stipulated penalties shall be assessed and paid by that Defendant as provided in Section XIII (Stipulated Penalties).

XVII. INFORMATION COLLECTION AND RETENTION

86. The United States and each Affected State Plaintiff 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 and in accordance with all legally applicable safety requirements to:

- a. monitor the progress of activities required under this Consent Decree;
- b. verify any data or information submitted to the United States or Affected State Plaintiff(s) in accordance with the terms of this Consent Decree;
- c. conduct performance testing;
- d. obtain documentary evidence, including photographs and similar data; and
- e. assess a Defendant's compliance with this Consent Decree.

87. Upon request, each Defendant shall provide to U.S. EPA and the Affected State Plaintiff and their authorized representatives copies of analytical data from Kiln performance testing performed at that Defendant's Kilns. Upon request, U.S. EPA and the Affected State Plaintiff shall provide a Defendant copies of analytical data from Kiln performance testing performed by U.S. EPA or the Affected State Plaintiff at said Defendant's Kilns.

88. Until five years after the termination of this Consent Decree, each Defendant shall retain, and shall instruct its contractors and agents to preserve, all non-identical copies of all documents, records, or other information (including documents, records, or other information in electronic form) in its or its contractors' or agents' possession or control, or that come into its or its contractors' or agents' possession or control, and that relate in any manner to that Defendant's performance of its 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 Plaintiff(s), each Defendant shall provide copies of any documents, records, or other information required to be maintained by it under this Paragraph.

89. At the conclusion of the information-retention period provided in the preceding Paragraph, each Defendant shall notify the United States and the Affected State Plaintiff(s) at

least ninety (90) Days prior to the destruction of any documents, records, or other information subject to the requirements of the preceding Paragraph and, upon request by the United States or Affected State Plaintiff(s), such Defendant shall deliver any such documents, records, or other information to U.S. EPA or Affected State Plaintiff(s). A Defendant may assert that certain documents, records, or other information is privileged under the attorney-client privilege or any other privilege recognized by federal law. If a Defendant asserts such a privilege, it 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 that Defendant. 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.

90. Each Defendant may also 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 applicable state law. As to any information that a Defendant seeks to protect as CBI, that Defendant shall follow the procedures set forth in 40 C.F.R. Part 2 and applicable state law.

91. 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 Affected State Plaintiff(s) pursuant to applicable federal or state laws, regulations, or permits, nor does it limit or affect any duty or obligation of either Defendant to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

XVIII. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

92. Resolution of Liability, NO_x and SO₂. With respect to the emissions of NO_x and SO₂ from the Facilities identified in Paragraph 8.s, entry of this Consent Decree shall resolve all civil liability of Lehigh and of Lehigh White to the United States and the Affected State Plaintiffs for any violations of the following requirements resulting from or arising out of a construction, reconstruction 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; and

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 upon Lehigh’s or Lehigh White’s 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 those portions of the Facilities identified in Paragraph 8.s that: (a) are affected facilities under 40 C.F.R. Part 60, Subparts F, Y or OOO, and/or affected sources under 40 C.F.R. Part 63, Subpart LLL, and (b) where that construction or modification commenced prior to the Date of Lodging; and

c. The New Source Performance Standards Provisions of the Clean Air Act, 42 U.S.C. § 7411; and the regulations codified at 40 C.F.R. Part 60, Subparts F, Y or OOO; 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.

93. Notwithstanding the resolution of liability in Paragraph 92, nothing in this Consent Decree precludes the United States and/or the Affected State Plaintiff(s) from seeking from a Defendant injunctive relief, penalties, or other appropriate relief for violations by that Defendant of the regulatory requirements identified in Paragraph 92 resulting from (1) construction or modification that commenced prior to the Date of Lodging of the Consent Decree, if the resulting violations do not arise from the conduct specifically resolved by Paragraph 92 or do not relate to NO_x or SO₂; or (2) any construction, reconstruction or modification that commences after the Date of Lodging of the Consent Decree.

94. The United States and the Affected State Plaintiffs 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 State Plaintiffs 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 92. The

United States and the Affected State Plaintiffs 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 Facilities, whether related to the violations addressed in this Consent Decree or otherwise.

95. In any subsequent administrative or judicial proceeding initiated by the United States or the Affected State Plaintiffs for injunctive relief, civil penalties, other appropriate relief relating to the Facilities or a Defendant's violations, that Defendant 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 Plaintiff 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 92 of this Decree.

96. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. Each Defendant is responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits; and a Defendant's 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 State Plaintiffs do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that a Defendant's compliance with any aspect of this Consent Decree will result in compliance with provisions of the Act, 42 U.S.C. § 7401 *et seq.*, or with any other provisions of federal, State, or local laws, regulations, or permits.

97. This Consent Decree does not limit or affect the rights of either Defendant or of the United States or the Affected State Plaintiffs 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 either Defendant, except as otherwise provided by law.

98. 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.

XIX. COSTS

99. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States and the Affected State Plaintiff(s) 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 a Defendant.

XX. NOTICES

100. Unless otherwise specified in this Decree, 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:

Division Director, Air Enforcement Division
Office of Civil Enforcement
U.S. Environmental Protection Agency
MC 2242A
1200 Pennsylvania Ave. NW
Washington, D.C. 20460

And

For all submissions referring to the Glens Falls Facility:

Chief
Air Compliance Branch
U. S. Environmental Protection Agency, Region 2
290 Broadway
New York, New York 10007-1866

And

Branch Chief
U. S. Environmental Protection Agency, Region 2
Office of Regional Counsel, Air Branch
290 Broadway, 16th Floor
New York, New York 10007

For all submissions referring to the Evansville, Union Bridge, and York Facilities:

Acting Section Chief
Air Section
Mail Code 3ED21
Enforcement and Compliance Assurance Division
U.S. EPA Region 3
1650 Arch Street
Philadelphia, PA 19103

For all submissions referring to the Leeds Facility:

Division Director
Enforcement and Compliance Assurance Division
U.S. EPA, Region 4
61 Forsyth Street
Atlanta, Georgia 30303

Todd Groendyke
Air Section 2
Enforcement and Compliance Assurance Division
U.S. EPA, Region 4
61 Forsyth Street
Atlanta, Georgia 30303

For all submissions referring to the Mitchell Facility:

Attn: Compliance Tracker
Air Enforcement and Compliance Assurance Branch (AE-18J)
U.S. EPA, Region 5
77 W. Jackson Boulevard
Chicago, IL 60604

For all submissions referring to the Waco Facility:

Chief
Air Enforcement Branch

Enforcement and Compliance Assurance Division
U.S. Environmental Protection Agency, Region 6
1201 Elm Street, Suite 500 (ECDA)
Dallas, Texas 75270

For all submissions referring to the Mason City Facility:

Director
Air and Waste Management Division
U.S. EPA Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219

For all submissions referring to the Cupertino, Redding, and Tehachapi Facilities:

Chief, Air Enforcement Office
Enforcement and Compliance Assurance Division
U.S. Environmental Protection Agency
Region 9
75 Hawthorne Street (ENF-2-1)
San Francisco, CA 94105

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. 90-5-2-1-08531/1

To the State of Indiana:

Office of the Indiana Attorney General
Environmental Litigation Division
Indiana Government Center South – Fifth Floor
302 West Washington Street
Indianapolis, IN 46204

And

Chief, Air Compliance and Enforcement Branch
Indiana Department of Environmental Management
MC 61-53, IGCN 1003
100 North Senate Avenue
Indianapolis, IN 46204-2251

And

Office of Legal Counsel
Indiana Department of Environmental Management
IGCN, Room 1307
100 North Senate Avenue
Indianapolis, IN 46204

To the State of Iowa:

Compliance and Monitoring Supervisor
Iowa Department of Natural Resources
Air Quality Bureau
502 E. 9th Street
Des Moines, Iowa 50319

And

David S. Steward
Assistant Attorney General
Iowa Department of Justice
Hoover State Office Bldg.
1305 E. Walnut St., 2nd Floor
Des Moines, IA 50319

To the State of Maryland:

Manager
Air Quality Compliance Program
Maryland Department of the Environment
1800 Washington Blvd., Suite 715
Baltimore, Maryland 21230-1720

And

Roberta R. James
Assistant Attorney General
Office of the Attorney General
Maryland Department of the Environment
1800 Washington Blvd., Suite 6048
Baltimore, MD 21230

To the State of New York:

New York State Department of Environmental Conservation
Region 5 – Ray Brook
1115 NYS Route 86, P.O. Box 296
Ray Brook, New York 12977-0296
Attn: Michelle Crew, Esq.

And

New York State Department of Environmental Conservation
Region 5 – Ray Brook
1115 NYS Route 86, P.O. Box 296
Ray Brook, New York 12977-0296
Attn: James Coutant P.E.

And

Michael J. Myers
Senior Counsel
Environmental Protection Bureau
New York State Attorney General
The Capitol
Albany, NY 12224

To the Pennsylvania Department of Environmental Protection:

Air Quality Program Manager
Pennsylvania Department of Environmental Protection
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110

And

Office of Chief Counsel
Pennsylvania Department of Environmental Protection
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110

To the Jefferson County Board of Health:

Jonathan Stanton, P.E.
Director, Environmental Health Services
Jefferson County Department of Health

1400 Sixth Avenue South
Birmingham, Alabama 35233

And

Wade C. Merritt
Spain & Gillon, LLC
505 20th Street North
Suite 1200
Birmingham, AL 35203

To the Bay Area Air Quality Management District:

Brian C. Bunger, District Counsel
375 Beale Street, Suite 600
San Francisco, CA 94105-2001

To Lehigh:

Vice President, Environmental, Safety and Health
Lehigh Hanson, Inc.
300 East John Carpenter Freeway
Suite 1645
Irving, Texas 75062

And

General Counsel
Lehigh Hanson, Inc.
300 East John Carpenter Freeway, Suite 1645
Irving, Texas 75062

To Lehigh White:

Chief Executive Officer
Lehigh White Cement Company, LLC
1601 Forum Place, Suite 1110
West Palm Beach, FL 33401

And

Todd Silliman
Dentons US LLP
303 Peachtree Street NE, Suite 5300
Atlanta, GA 30308

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

102. 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.

103. Upon future written agreement of the sending and receiving Parties, notifications, communications, or submissions required under this Consent Decree may be submitted electronically in lieu of by mail or commercial delivery service. The Parties will determine the procedures for electronic submittal at that time.

XXI. EFFECTIVE DATE

104. 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, as recorded on the Court's docket.

XXII. RETENTION OF JURISDICTION

105. 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 Section XVI (Dispute Resolution) and Section XXIII (Modification), or effectuating or enforcing compliance with the terms of this Decree.

XXIII. MODIFICATION

106. The terms of this Consent Decree, including the Appendices, may be modified only by a subsequent written agreement signed by any Affected State Plaintiff(s), the United States, and any Defendant that would be affected by the proposed modification. Where the

modification constitutes a material change to this Decree, it shall be effective only upon approval by the Court.

107. Any disputes concerning modification of this Decree shall be resolved pursuant to Section XVI of this Decree (Dispute Resolution), provided, however, that, instead of the burden of proof provided by Paragraph 84, 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).

XXIV. TERMINATION

108. Termination as to an Individual Facility. After a Defendant has complied with the requirements of Section IV (Civil Penalty), and continuously complied with Section V (NO_x Control Technology, Emission Limits and Monitoring Requirements) and Section VI (SO₂ Control Technology, Emission Limits and Monitoring Requirements) of this Decree for a period of two years; has either submitted a permit application for and is in receipt of one or more non-Title V permits that are federally enforceable and contain the necessary Consent Decree terms as non-expiring obligations, as required by Paragraph 43, or the necessary terms of this Consent Decree both have been submitted by the Affected State Plaintiff to the U.S. EPA for approval pursuant to the authority of the State's SIP and been approved by the U.S. EPA for incorporation into the SIP, as specified in Paragraph 47; has submitted an application for a modification to its Title V permit, as required by Paragraph 44, relating to the Facility for which said Defendant seeks termination; has paid any stipulated penalties that are due and owing by that Defendant under Section XIII (Stipulated Penalties); and has Continuously Operated any Control Technology as required by this Consent Decree for the Kiln for a period of two years at an individual Facility, that Defendant may serve upon the United States and the Affected State

Plaintiff a Request for Termination, stating that said Defendant has satisfied those requirements, together with all necessary supporting documentation. If the United States and the Affected State Plaintiff 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.

109. Complete Termination.

a. After Lehigh has complied with the requirements of Section IV (Civil Penalty), and continuously complied with Section V (NO_x Control Technology, Emission Limits and Monitoring Requirements), Section VI (SO₂ Control Technology, Emission Limits and Monitoring Requirements), and Section VII (Other Injunctive Relief) of this Decree; has either submitted a permit application for and is in receipt of one or more non-Title V permits that are federally enforceable and contain the necessary Consent Decree terms as non-expiring obligations, as required by Paragraph 43, or the necessary terms of this Consent Decree both have been submitted by the Affected State Plaintiff to the U.S. EPA for approval under the State's SIP and been approved by the U.S. EPA for incorporation into the SIP, as specified in Paragraph 47, for all of the Lehigh Facilities identified in Paragraph 8.s; has submitted an application for a modification to the Title V permit, as required by Paragraph 44, relating to all of the Lehigh Facilities identified in Paragraph 8.s; has paid any stipulated penalties that are due and owing by Lehigh under Section XIII (Stipulated Penalties); has maintained Continuous Operation of all Control Technology as required by this Consent Decree for a period of two years at all of the Lehigh Facilities; and has complied with all other requirements of this Consent Decree, Lehigh may serve upon the United States and the Affected State Plaintiffs a Request for Termination, stating that Lehigh has satisfied those requirements, together with all necessary

supporting documentation. If the United States and the Affected State Plaintiff(s) agree that the Decree may be terminated as to Lehigh, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Decree as to Lehigh.

b. After Lehigh White has continuously complied with Section V (NO_x Control Technology, Emission Limits and Monitoring Requirements) and Section VI (SO₂ Control Technology, Emission Limits and Monitoring Requirements) of this Decree; has either submitted a permit application for and is in receipt of one or more non-Title V permits that are federally enforceable and contain the necessary Consent Decree terms as non-expiring obligations, as required by Paragraph 43, or the necessary terms of this Consent Decree both have been submitted by the Affected State to the U.S. EPA for approval under the State's SIP and been approved by the U.S. EPA for incorporation into the SIP, as specified in Paragraph 47, for all of the Lehigh White Facilities identified in Paragraph 8.s; has submitted an application for a modification to the Title V permit, as required by Paragraph 44, relating to all of the Lehigh White Facilities identified in Paragraph 8.s; has paid any stipulated penalties that are due and owing by Lehigh White under Section XIII (Stipulated Penalties); has maintained Continuous Operation of all Control Technology as required by this Consent Decree for a period of two years at all of the Lehigh White Facilities; and has complied with all other requirements of this Consent Decree, Lehigh White may serve upon the United States and the Affected States a Request for Termination, stating that Lehigh White has satisfied those requirements, together with all necessary supporting documentation. If the United States and the Affected State Plaintiff(s) agree that the Decree may be terminated as to Lehigh White, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Decree as to Lehigh White.

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

XXV. PUBLIC PARTICIPATION

111. This Consent Decree shall be lodged with the Court for a period of not less than thirty (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. Each Defendant consents to entry of this Consent Decree without further notice and agrees 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 that Defendant in writing that it no longer supports entry of the Consent Decree.

XXVI. SIGNATORIES/SERVICE

112. The Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice or his designee and each undersigned representative of each Defendant 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.

113. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis. Each Defendant agrees to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree with regard to such Defendant 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. Each Defendant shall identify, on its 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 that Defendant with respect to all matters arising under or relating to this Consent Decree. All Parties agree that each Defendant need not file an answer or otherwise respond to the Complaint in this action unless or until the Court expressly declines to enter this Consent Decree.

XXVII. INTEGRATION

114. This Consent Decree constitutes the final, complete, and exclusive agreement and understanding between the Plaintiffs on the one hand, and the Defendants on the other, 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.

XXVIII. FINAL JUDGMENT

115. 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 Indiana;

the State of Iowa; the State of Maryland; the State of New York; the Pennsylvania Department of Environmental Protection; Jefferson County Board of Health; the Bay Area Air Management District; Lehigh White; and Lehigh. 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.

XXIX. 26 U.S.C. § 162(f)(2)(A)(ii) IDENTIFICATION

116. For purposes of the identification requirement of Section 162(f)(2)(A)(ii) of the Internal Revenue Code, 26 U.S.C. § 162(f)(2)(A)(ii), performance of Section II (Applicability), Paragraph 6; Section V (NO_x Control Technology, Emission Limits, and Monitoring Requirements), Paragraphs 12-19; Section VI (SO₂ Control Technology, Emission Limits, and Monitoring Requirements); Paragraphs 20-30 and related Appendix C; Section VIII (Temporary Cessation of Kiln Operation), Paragraphs 37-39; Section X (Permits), Paragraphs 42-44 and 46-47; Section XI (Review and Approval of Submittals), Paragraphs 49- 50; Section XII (Reporting Requirements), Paragraphs 54-55 (except with respect to Appendix B); and Section XVII (Information Collection and Retention), Paragraphs 86-89, is restitution or required to come into compliance with law.

XXX. APPENDICES

117. The following Appendices are attached to and incorporated as part of this Consent Decree:

“Appendix A” is “Addressing Detached Plume Events.”

“Appendix B” is “Environmental Mitigation Projects.”

“Appendix C” is “Test-and-Set Protocol for SO₂ Emission Limit for the Cupertino Kiln.”

118. All terms in the Appendices shall be construed in a manner consistent with this Decree.

Dated and entered this _____ Day of _____, _____.

UNITED STATES DISTRICT COURT JUDGE
EASTERN DISTRICT OF PENNSYLVANIA

Signature Page to the Consent Decree in *United States, et al v. Lehigh Cement Company LLC and Lehigh White Cement Company, LLC*

FOR PLAINTIFF UNITED STATES OF AMERICA:

JEFFREY BOSSERT CLARK
Assistant Attorney General
Environment and Natural Resources Division
United State Department of Justice

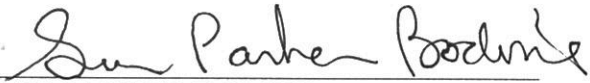


CATHERINE BANERJEE ROJKO
Senior Counsel
ANDREW W. INGERSOLL
Trial Attorney
Environmental Enforcement Section
Environment and Natural Resources Division
United States Department of Justice
P.O. Box 7611
Washington, D.C. 20044-7611
Telephone: (202) 514-5315
Facsimile: (202) 616-6584
Email: cathy.rojko@usdoj.gov

Date: 12/2/19

Signature Page to the Consent Decree in *United States, et al v. Lehigh Cement Company LLC and Lehigh White Cement Company, LLC*

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:



SUSAN PARKER BODINE

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

Date: 7/25/19



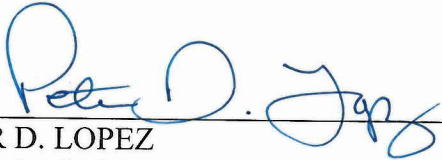
PHILLIP A. BROOKS

Director, Air Enforcement Division
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency

Date: 7/1/2019

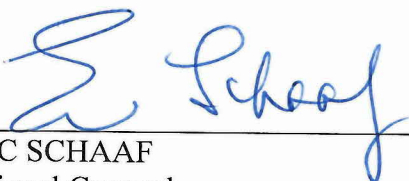
Signature Page to the Consent Decree in *United States, et al v. Lehigh Cement Company LLC and Lehigh White Cement Company, LLC*

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 2:



PETER D. LOPEZ
Regional Administrator
U.S. Environmental Agency, Region 2

Date: 7/19/19



ERIC SCHAAF
Regional Counsel
Office of Regional Counsel
U.S. Environmental Protection Agency
Region 2
290 Broadway
New York, NY 10007

Date: 7/19/19

Signature Page to the Consent Decree in *United States, et al v. Lehigh Cement Company LLC and Lehigh White Cement Company, LLC*

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 3:



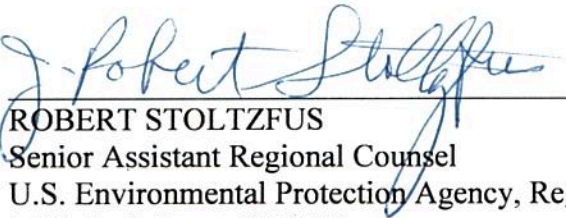
COSMO SERVIDIO
Regional Administrator
U.S. Environmental Agency, Region 3

Date: 7-8-2019



CECIL RODRIGUES
Acting Regional Counsel
U.S. Environmental Agency, Region 3

Date: 6/28/2019



ROBERT STOLTZFUS
Senior Assistant Regional Counsel
U.S. Environmental Protection Agency, Region 3
1650 Arch Street (3RC50)
Philadelphia, PA 19103

Date: 6/24/19

Signature Page to the Consent Decree in *United States, et al v. Lehigh Cement Company LLC and Lehigh White Cement Company, LLC*

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 4:



MARY S. WALKER
Regional Administrator
U.S. Environmental Protection Agency
Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303

Date: 7/18/2019

Signature Page to the Consent Decree in *United States, et al v. Lehigh Cement Company LLC and Lehigh White Cement Company, LLC*

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 5:



Date: 7/18/2019

T. LEVERETT NELSON
Regional Counsel
United States Environmental Protection Agency, Region 5

Signature Page to the Consent Decree in *United States, et al v. Lehigh Cement Company LLC and Lehigh White Cement Company, LLC*

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 6:



CHERYL T. SEAGER

Director

Enforcement and Compliance Assurance Division

U.S. Environmental Protection Agency, Region 6

1445 Ross Avenue

Dallas, TX 75202

Date: 6-5-2019

Signature Page to the Consent Decree in *United States, et al v. Lehigh Cement Company LLC and Lehigh White Cement Company, LLC*

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 9:



Acting
MICHAEL STOKER *Deborah Jordan*
Regional Administrator
United States Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, California 94105

Date: 6/26/2019



SYLVIA QUAST
Regional Counsel
United States Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, California 94105

Date: 6/26/19

Signature Page to the Consent Decree in *United States, et al v. Lehigh Cement Company LLC and Lehigh White Cement Company, LLC*

FOR THE STATE OF INDIANA:




BRUNO L. PIGOTT
Commissioner
Indiana Department of Environmental Management

Date: 6/27/19

As to form and legality:

CURTIS T. HILL
Indiana Attorney General



PATRICIA ORLOFF ERDMANN
Chief Counsel for Litigation
Office of the Attorney General
Indiana Government Center South, 5th Floor
302 West Washington Street
Indianapolis, Indiana 46204

Date: June 27, 2019

Signature Page to the Consent Decree in *United States, et al v. Lehigh Cement Company LLC and Lehigh White Cement Company, LLC*

FOR THE STATE OF IOWA:

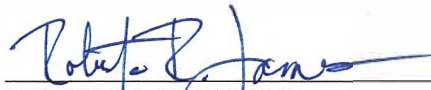


Date: July 9, 2019

DAVID S. STEWARD
Assistant Attorney General
Environmental Law Division
Hoover State Office Building
1305 E. Walnut St., 2nd Floor
Des Moines, IA 50319
Phone: (515) 281-7242
E-mail: david.steward@ag.iowa.gov

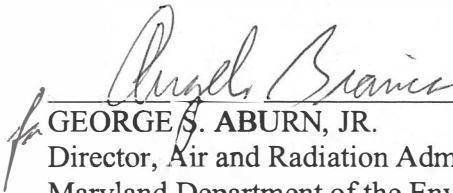
Signature Page to the Consent Decree in *United States, et al v. Lehigh Cement Company LLC and Lehigh White Cement Company, LLC*

FOR THE STATE OF MARYLAND:



ROBERTA R. JAMES
Assistant Attorney General
Office of the Attorney General
Maryland Department of the Environment
1800 Washington Blvd., Suite 6048
Baltimore, MD 21230
Ph. (410) 537-3748
Fax (410) 537-3943
roberta.james@maryland.gov

Date: 6/24/19

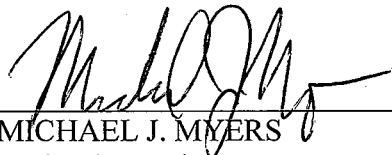


GEORGE S. ABURN, JR.
Director, Air and Radiation Administration
Maryland Department of the Environment
1800 Washington Blvd.
Baltimore, MD 21230-1720
Ph. (410) 537-3255
george.aburn@maryland.gov

Date: 24 June 2019

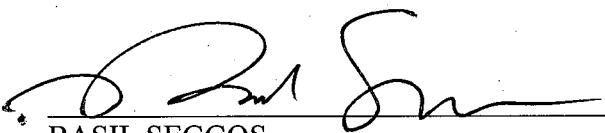
Signature Page to the Consent Decree in *United States, et al v. Lehigh Cement Company LLC and Lehigh White Cement Company, LLC*

FOR THE STATE OF NEW YORK:



MICHAEL J. MYERS
Senior Counsel
Environmental Protection Bureau
New York State Attorney General
The Capitol
Albany, NY 12224
(518) 776-2382
michael.myers@ag.ny.gov

Date: 7/12/19



BASIL SEGGOS
Commissioner
New York State Department of Environmental Conservation

Date: 7/10/19

Signature Page to the Consent Decree in *United States, et al v. Lehigh Cement Company LLC and Lehigh White Cement Company, LLC*

FOR THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION:

William R. Weaver III

Date: 6/26/19

WILLIAM R. WEAVER III
Air Quality Program Manager
Pennsylvania Department of Environmental Protection
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110


Alicia R. Duke

Date: 6/26/19

ALICIA R. DUKE
Assistant Counsel
Pennsylvania Department of Environmental Protection
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110
Phone: (717) 787-8790

Signature Page to the Consent Decree in *United States, et al v. Lehigh Cement Company LLC and Lehigh White Cement Company, LLC*

FOR THE JEFFERSON COUNTY BOARD OF HEALTH:

Handwritten signature in blue ink, appearing to read "ME Wilson MD".

Date: 7-24-2019

MARK E. WILSON, M.D.
Health Officer
Jefferson County Department of Health
1400 Sixth Avenue South
Birmingham, Alabama 35233

Signature Page to the Consent Decree in *United States, et al v. Lehigh Cement Company LLC and Lehigh White Cement Company, LLC*

FOR THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT:



JACK P. BROADBENT

EXECUTIVE OFFICER/APCO
BAY AREA AIR QUALITY
MANAGEMENT DISTRICT
375 Beale Street, Suite 600
San Francisco, CA 94105-2001

Date: 9/21/18

APPROVED AS TO FORM BY:

BAY AREA AIR QUALITY
MANAGEMENT
DISTRICT

375 Beale Street, Suite 600
San Francisco, CA 94105-2001




BRIAN C. BUNGER
District Counsel

Date: 9/21/2018

Signature Page to the Consent Decree in *United States, et al v. Lehigh Cement Company LLC and Lehigh White Cement Company, LLC*

FOR DEFENDANT LEHIGH CEMENT COMPANY LLC:



JON MORRISH
President

Date: 05/15/19

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FOR DEFENDANT LEHIGH WHITE CEMENT COMPANY, LLC:



GERHARD A. MILLA
President and CEO

Date: 5/30/2019

Appendix A to Consent Decree
Addressing Detached Plume Events

- 1) What is a Detached Plume?
 - a) “Detached Plume” shall mean a persistent, non-water vapor, visible plume that forms at a distinct distance from the stack outlet.
- 2) What is a Detached Plume Event?
 - a) “Detached Plume Event” or “Event” shall mean the observation of a Detached Plume from a kiln stack within the Defendant’s system that the Defendant subsequently acts upon by implementing the applicable Site-Specific Detached Plume Event Protocol.
 - b) A Detached Plume Event requires the following elements:
 - i) Observation of a Detached Plume; and
 - ii) Implementation of the applicable Site-Specific Detached Plume Event Protocol.
 - c) In order to qualify as a Detached Plume Event within the meaning of this Appendix, (1) a Kiln must have a Site-Specific Detached Plume Event Protocol that has been submitted and not disapproved pursuant to Section XI of the Consent Decree and this Appendix (unless a state-approved detached plume protocol is already in place); and (2) the Defendant must have complied with the requirements of Section XV (Detached Plume Event) of the Consent Decree and this Appendix in responding to the Detached Plume.
- 3) Submission and Approval of Site-Specific Detached Plume Event Protocol
 - a) Unless a state-approved detached plume protocol is already in place, each Facility shall submit to EPA and the Affected State Plaintiff, for approval, pursuant to Section XV of the Consent Decree, a Site-Specific Detached Plume Event Protocol that will include all steps to mitigate the Detached Plume prior to reduction of the Ammonia Injection Rate, the procedure to reduce the Ammonia Injection Rate, the procedure to return the Ammonia Injection Rate to the original Ammonia Injection Rate, and the procedure to return all other affected parameters to their original settings after the Detached Plume Event.
 - b) Where a Detached Plume occurs after the Protocol is submitted but before approval or disapproval, the Defendant shall implement the Protocol as submitted.
- 4) Requirements of Site-Specific Detached Plume Event Protocols
 - a) Each Site-Specific Detached Plume Event Protocol shall include the following:

- i) A detailed list of the steps to be taken to identify and confirm the existence of the Detached Plume (such as visual observation, use of video cameras, and/or other means);
 - ii) A description of steps to be taken to address the Detached Plume prior to reduction of the Ammonia Injection Rate. Such steps should be appropriate to the specific Kiln and should include reducing SO₂ emissions from each Kiln using SO₂ control devices and methods available at the Kiln at the time of the Detached Plume (lime injection if applicable, modifications to back end O₂, *etc.*);
 - iii) A description of the specific steps in the Ammonia Injection Rate reduction procedure (*e.g.*, follow a procedure to quickly reduce ammonia injection, in order to determine whether the Detached Plume is caused by the ammonia injected into the Kiln);
 - iv) A description of specific steps to be taken to reintroduce ammonia to return the Ammonia Injection Rate to the pre-Event injection rate as quickly as possible once the Detached Plume is no longer visible, or once it is observed that reduced ammonia injection has not reduced the Detached Plume (*e.g.*, increase ammonia injection by 10% of steady state rate, wait fifteen (15) minutes and check for presence of detached plume. If not seen, increase ammonia injection by another 10%, *etc.*);
 - v) A description of specific steps to return all operating parameters to pre-Event status as quickly as possible once the Detached Plume is no longer visible;
 - vi) A description of how the Defendant will verify that all the specified steps for a particular Kiln have been taken (such as provision of operating records, confirmation by the person in charge of the Facility during the Detached Plume Event, *etc.*);
 - vii) A requirement that the Defendant notify the Plant Manager and Environmental Manager, as well as EPA and the Affected State, and when it will do so; and
 - viii) A proposed alternate NO_x emission limit (in lbs/hr, ppm or lbs/ton) to be met during the Detached Plume Event.
- 5) Root Cause Analysis:
- a) Promptly after each Detached Plume Event, the Defendant must undertake a “Root Cause Analysis” for the Event. The Defendant will review the events prior to, during and after the Event, and identify the most likely cause of the Event.
 - b) The Root Cause Analysis will include:
 - i) The date of the Event;
 - ii) The duration of the Event;
 - iii) The calculated amount of excess NO_x emissions; and

- iv) A summary of all actions taken during and after the Event to mitigate the Detached Plume Event, and comply with this Appendix and the applicable NO_x emission limit in Paragraph 12.
 - c) The Root Cause Analysis shall also analyze whether there are steps that can be taken to prevent an Event from occurring in the future due to the root cause(s) identified for this Event in the Root Cause Analysis. The Root Cause Analysis shall:
 - i) Identify all steps that can be taken to prevent an Event from occurring in the future;
 - ii) Identify which of these steps the Defendant contends are reasonable (weighing the predicted effectiveness of the measure at preventing recurrence versus its cost and difficulty of implementation) to implement and explain why;
 - iii) Propose a schedule for completion of each step that is recommended by the Defendant;
 - iv) Identify the reason(s) why the Defendant recommends any step not be undertaken at the Kiln; and
 - v) In the case of changes the Defendant recommends to operating procedures, propose a schedule to implement the new operating procedure into the standard operating procedures of the Kiln.
 - d) The Root Cause Analysis will be submitted to EPA and the applicable State agency within forty-five (45) Days of the conclusion of the Detached Plume Event.
 - e) Within one hundred twenty (120) Days of EPA's approval, after consultation with the applicable State, of the Root Cause Analysis, the Defendant shall complete implementation or construction of all steps recommended in the Root Cause Analysis Report, unless a longer schedule has been approved by EPA, after consultation with the applicable State.
 - f) If EPA has approved changes recommended by the Defendant under 5(c) above, the Defendant shall, within one hundred twenty (120) Days of EPA's approval of the Root Cause Analysis, resubmit the amended Site-Specific Detached Plume Event Protocol incorporating the changes approved by EPA, including any new operating procedures.
- 6) Multiple Events at one Kiln
- a) If more than seven (7) Detached Plume Events occur at any Kiln in a Calendar Year, the Defendant responsible for that Kiln must propose steps to reduce the occurrence of Detached Plume Events at the Facility. This must be submitted to U.S. EPA and the applicable State for approval. Examples of actions that will be proposed are: installation of a Lime Injection System or other Control Device at the Kiln, enhancement of the existing Lime Injection System or Control Device to reduce sulfur oxides and their associated salts, or other similar measures.

- 7) The Defendant's proposal must be submitted to U.S. EPA and the applicable State within thirty (30) Days of the conclusion of the 7th Detached Plume Event. It shall include the following concerning the proposed steps: design of system, schedule and procedures for installation or enhancement of system, as applicable, and standard operating procedures for the system. This plan will be subject to approval pursuant to Section XI (Review and Approval of Submittals) of the Consent Decree.

**Appendix B to Consent Decree:
Environmental Mitigation Projects**

In compliance with and in addition to the requirements in Section VII of this Consent Decree (Other Injunctive Relief), Lehigh shall comply with the requirements of this Appendix B to ensure that the benefits for the federally directed Environmental Mitigation Projects below are achieved.

Clean Diesel Replacement Projects

1. Lehigh shall implement the following project to replace the identified in-service diesel engines by replacing the diesel machines designated in subparagraph b. (off-highway haul truck or wheel loader) with diesel machines that have emission control equipment further described in this Paragraph 1 of this Appendix B, designed to reduce approximately 25 tons per year of emissions of NOx, particulates and/or ozone precursors (each such replacement is referred to herein as a “Project”):
 - a. Lehigh shall replace diesel machines containing either Tier 1 or Tier 2 engines located at its Facilities and designated in Subparagraph b. with diesel machines containing Tier 4 engines, as defined by the standards under 40 C.F.R. Part 89, by one (1) year after the Effective Date. However, if within thirty (30) Days of the Effective Date of this Consent Decree, Lehigh identifies comparable engines to be replaced, and obtains EPA’s approval thereof, Lehigh may substitute such comparable engines. Nothing shall prevent Lehigh from reselling or salvaging parts of replaced diesel machines, provided that the replaced diesel engines are permanently taken out of service.
 - b. The engines selected for replacement are the following:

| | |
|-----------------------|------------------|
| Location | Union Bridge, MD |
| Make | Caterpillar |
| Year | 2002 |
| Type | Wheel loader |
| Model | 992G |
| Engine Horsepower | 800 hp |
| Estimated Engine Cost | \$325,000 |

| | |
|-----------------------|----------------|
| Location | Mason City, IA |
| Make | Caterpillar |
| Year | 1996 |
| Type | Haul Truck |
| Model | 777C |
| Engine Horsepower | 870 hp |
| Estimated Engine Cost | \$325,000 |

- c. Upon submittal, Lehigh shall comply with the schedule for the engine replacements, as described in Appendix B.1.a.
2. Lehigh shall provide a mechanism by which each replaced engine in Paragraph 1 of this Appendix B above is properly disposed of, which must include destruction of the engine block. Lehigh may retain the remainder of the diesel machine to be either used as spare parts or sold as spare parts to a third party.
3. For any third party with whom Lehigh might contract to assist Lehigh in implementing the engine replacement project, Lehigh shall establish minimum standards that include prior experience in performing replacements.
4. Nothing in this Consent Decree shall be interpreted to prohibit Lehigh from completing any of the Projects ahead of schedule.
5. In accordance with the requirements of Paragraph 35 of the Consent Decree, within sixty (60) Days following the completion of each Project, Lehigh shall submit to U.S. EPA for approval a report that documents:
 - a. The date the engine replacement was completed;
 - b. The results of implementation of the engine replacement, including the estimated emission reductions or other environmental benefits achieved; and
 - c. The cost incurred by Lehigh in implementing the engine replacement.

Appendix C to Consent Decree

Test-and-Set Protocol For SO₂ Emission Limit For The Cupertino Kiln

I. Scope and Applicability

1. Lehigh shall comply with the requirements contained in this Appendix C regarding installation and optimization of the Lime Injection System and in establishing the 30-Day Rolling Average Emission Limit for SO₂ for Cupertino Kiln 1.

II. Cupertino Kiln 1 Lime Injection System Design and Optimization Protocol and Period

1. Within 2 months of the Effective Date, Lehigh shall submit to EPA for approval pursuant to Section XI (Review and Approval of Submittals) of the Consent Decree a Cupertino Kiln Lime Injection System Design and Optimization Protocol (“Design and Optimization Protocol”) that describes how the Lime Injection System for the Cupertino Kiln will be designed, installed or modified, configured, and tested to determine the configuration and operation resulting in the minimization of emissions of SO₂ to the greatest extent practicable without violating any local, state and/or federal limits for other pollutants.
2. The Design and Optimization Protocol shall describe the physical configurations of the Lime Injection System to be tested, other aspects of Kiln operation necessary to enhance performance of the Lime Injection System that will be modified for testing, and procedures to be used during the optimization period (“Optimization Period”), and shall include, at a minimum, the following:
 - a. A system design to deliver the reagent to the exhaust gases at a maximum rate of at least a molar ratio of 8 mols of reagent to 1 mol of SO₂ (8:1 molar ratio) based upon an estimate of the uncontrolled SO₂ outlet concentration (without reagent injection).
 - b. Identification of design enhancements and/or modifications to be made to the Lime Injection System to ensure maximum emission reduction effectiveness, along with a schedule for implementation of such enhancements and/or modifications.
 - c. Date of commencement and length of the Optimization Period, which shall begin, at a minimum, within fourteen (14) Days after completion of the enhancements and/or modifications to the Lime Injection System, along with a description of the optimization steps to be used and the length of time for each step.

- d. The type of hydrated lime or other reagent selected, and the reasons for the selection.
 - e. The locations selected to be tested for injection and other design parameters of the injection system. The design and location of injection to be tested shall be based upon maximum emission reduction effectiveness, good engineering judgment, vendor standards, available data, and Kiln operability.
 - f. The nature, location and operation of water sprayers to be tested to optimize the moisture level and temperature necessary for optimal SO₂ reduction through use of the Lime Injection System.
3. Lime Injection System Optimization Period:
- a. Lehigh shall install or modify and shall commence optimization of the Lime Injection System in accordance with the approved Design and Optimization Protocol schedule established pursuant to Paragraph 2.c. of this Appendix or within 180 Days following EPA's approval of the Design and Optimization Protocol, whichever is earlier. If Lehigh is unable to meet the required commencement date because it has not received a necessary permit despite submitting all timely and complete permit applications in accordance with Paragraphs 42 and 43 of this Consent Decree, then the commencement of the Optimization Period shall be tolled by the time EPA, the Affected State and Lehigh agree in writing is necessary to complete any physical changes or upgrades needed prior to optimization after obtaining any needed permits.
 - b. Lehigh shall comply with all requirements set forth in the approved Design and Optimization Protocol.
 - c. Optimization of the Lime Injection System, pursuant to the Design and Optimization Protocol, shall be completed within 5 months following the start of the Optimization Period.
4. Data Collection:
- a. The data collected during the Optimization Period and through to the end of the Demonstration Period shall include the following data derived from available direct monitoring or estimated from monitored or measured data:
 - i. Kiln flue gas temperature at the inlet to the fabric filter or at the Kiln stack (daily average);
 - ii. Kiln production in tons of clinker (daily total) and the method used to calculate Kiln production;

- iii. Raw material feed in tons (daily total);
- iv. Type and percentage of each raw material used (daily);
- v. 30-Day Rolling Average Emission Rate (daily) of NO_x in pounds per ton of clinker produced;
- vi. SO₂ concentrations (dry basis) and mass rates (daily average);
- vii. Flue gas volumetric flow rate (daily average in dry acfm);
- viii. Feed C₃S measurement (at least daily);
- ix. Temperatures in or near the burning zone (by infrared or optical pyrometer (daily average));
- x. Kiln system fuel feed rate and type of fuel by weight or heat input rate (calculated to a daily average);
- xi. Kiln amps (daily average);
- xii. O₂ concentration (daily average concentration);
- xiii. Kiln system draft fan settings (daily average);
- xiv. Documentation of any Startup, Shutdown, or Malfunction events; and
- xv. An explanation of any gaps in the data or missing data.

III. Lime Injection System Optimization Report:

- 1. Within sixty (60) Days following the end of the Optimization Period, Lehigh shall submit to EPA for approval pursuant to Section XI (Review and Approval of Submittals) of the Consent Decree an optimization report (“Optimization Report”) for the Cupertino Kiln. The Optimization Report shall:
 - a. Demonstrate conformance with the Design and Optimization Protocol;
 - b. Include all data collected (Paragraph II.4. above) during the Optimization Period; and
 - c. Propose, for EPA approval, consistent with the Design and Optimization Protocol, the optimized operating configuration and parameters for the Lime Injection System to be maintained during the Demonstration Period.

2. In identifying the optimized state of the Lime Injection System and any associated Kiln parameters, including design and location of water sprayers and injection rates of reagent, Lehigh may take into account energy, environmental, and economic impacts and other costs.
3. The Optimization Report must also include a discussion of any problems encountered during the Optimization Period, how these problems will be addressed during the Demonstration Period, and how the problem(s) may impact the potential emission reductions.
4. In the event Lehigh determines, prior to the expiration of the Optimization Period, that its ability to optimize its Lime Injection System will be affected by potential impairments to product quality, Kiln system reliability or increased emissions of other pollutants, then Lehigh shall promptly advise EPA of this determination, and include these considerations and recommended actions as part of its recommendation in its Optimization Report.

IV. Lime Injection System Demonstration Period

1. The Lime Injection System Demonstration Period (“Demonstration Period”) for the Cupertino Kiln shall commence within seven (7) Days after Lehigh’s receipt of the final approval by EPA of the Optimization Report.
2. The Demonstration Period shall last two hundred seventy (270) Operating Days. During the Demonstration Period, the Kiln shall be operated consistent with the optimized operations of the Lime Injection System, and associated Kiln processes, as part of the Optimization Report approved by EPA.
3. If Kiln operation is disrupted by excessive unplanned outages, or excessive startups and shutdowns during the Demonstration Period, or if the Kiln temporarily ceases operation for business or technical reasons, Lehigh may request that EPA extend the Demonstration Period. EPA shall grant or deny the request and shall state the amount of time (if any) that the Demonstration Period may be extended, which decision is subject to the Section XVI (Dispute Resolution) provisions of this Consent Decree. Lehigh may not suspend Demonstration Period data collection until and unless EPA has granted the request. Data gathered during periods of disruption may not be used to determine an emission limitation unless both Lehigh and EPA agree.
4. Subject to Section XVI (Dispute Resolution) and through written notice to Lehigh, EPA may itself extend or reopen the Demonstration Period based upon a determination that additional data is needed to be able to adequately establish an emission limitation.

5. If evidence arises during the Demonstration Period that product quality, Kiln system or reliability is impaired, then Lehigh may, upon notice to, and approval by, EPA, temporarily modify Kiln operation and the Lime Injection System to mitigate the impairment and request that EPA suspend or extend the Demonstration Period for further technical evaluation of the effects of process optimization on the Kiln or Lime Injection System or, alternatively, permanently modify the manner of operation of the Kiln or Lime Injection System to mitigate the effects.
6. During the Demonstration Period for the Cupertino Kiln, Lehigh shall collect the same data as required in Paragraph II.4 of this Appendix C.
7. During the Demonstration Period for the Cupertino Kiln, Lehigh shall continuously meet the limit for the Cupertino Kiln set forth in Paragraph 25.a of the Consent Decree.

V. Lime Injection System Demonstration Report

1. Within sixty (60) Days following completion of the Demonstration Period for the Cupertino Kiln and its associated Lime Injection System, Lehigh shall submit a Lime Injection System Demonstration Report (“Demonstration Report”) to EPA. The Demonstration Report shall include all of the data collected (Paragraph II.4.) during the Demonstration Period and the proposed 30-Day Rolling Average Emission Limit for SO₂ for the Cupertino Kiln.
2. For the purposes of the Demonstration Report:
 - a. The 30-Day Rolling Average Emission Limit for SO₂ shall be based upon an analysis of CEMS data and clinker production data collected (Paragraph II.4.) during the Demonstration Period while the Cupertino Facility’s processes and Lime Injection System parameters were optimized.
 - b. Total pounds of SO₂ emitted during an individual Operating Day will be calculated from collected CEMS data for that Operating Day.
 - c. Hours or Days when there is no Kiln Operation may be excluded from the calculation in Paragraph V.2.d of this Appendix C. However, Lehigh shall provide an explanation in the Demonstration Report for any data excluded and include the excluded data in the Demonstration Report.
 - d. The final 30-Day Rolling Average Emission Limit for SO₂ for the Cupertino Kiln shall be calculated in accordance with the following formula:

$$X = \mu + 1.65\sigma \text{ where:}$$

\bar{x} = 30-Day Rolling Average Emission Limit (lbs/Ton of clinker)

μ = arithmetic mean of all of the 30-Day rolling averages

σ = standard deviation of all of the 30-Day rolling averages, as calculated in the following manner:

$$\sigma = \sqrt{\frac{1}{N} \sum_{i=1}^N (x_i - \bar{x})^2}$$

- e. The proposed 30-Day Rolling Average SO₂ Emission Limit for the Cupertino Kiln shall be no less stringent than the Demonstration Period 30-Day Rolling Average Emission Limit for SO₂ set forth in Paragraph 25.a of the Consent Decree.
3. EPA shall either approve the proposed 30-Day Rolling Average Emission Limit for SO₂ or establish an alternative 30-Day Rolling Average Emission Limit. If EPA establishes an alternative 30-Day Rolling Average Emission Limit for SO₂, Lehigh will begin to meet the alternative 30-Day Rolling Average Emission Limit for SO₂ within thirty (30) Days of receiving notice of the limit from EPA, unless Lehigh invokes dispute resolution according to the Section XVI (Dispute Resolution) provisions of this Consent Decree.
 4. Supporting data required to be submitted under this Appendix C may contain information relative to Kiln operation and production that Lehigh may consider to be proprietary. In such a situation, Lehigh may submit the information to EPA as CBI, subject to the provisions of 40 C.F.R. Part 2.