

**UNITED STATES DISTRICT COURT**  
**FOR THE DISTRICT OF KANSAS**

UNITED STATES OF AMERICA, the  
STATE OF ARKANSAS on behalf of the  
Arkansas Department of Environmental  
Quality, the IDAHO DEPARTMENT OF  
ENVIRONMENTAL QUALITY, the STATE  
OF KANSAS, STATE OF MONTANA ex  
rel. DEPARTMENT OF  
ENVIRONMENTAL QUALITY, the  
STATE OF NEBRASKA on behalf of the  
Nebraska Department of Environmental  
Quality, the STATE OF OREGON on behalf of  
of the Oregon Department of Environmental  
Quality, the STATE OF UTAH on behalf of  
the Utah Department of Environmental  
Quality, the WASHINGTON STATE  
DEPARTMENT OF ECOLOGY, and the  
PUGET SOUND CLEAN AIR AGENCY  
  
Plaintiffs,  
  
v.  
  
ASH GROVE CEMENT COMPANY  
  
Defendant.

NO: \_\_\_\_\_

## **CONSENT DECREE**

## TABLE OF CONTENTS

SECTION I: JURISDICTION AND VENUE.....	4
SECTION II: APPLICABILITY .....	4
SECTION III: DEFINITIONS.....	6
SECTION IV: CIVIL PENALTY .....	18
SECTION V : NOX CONTROL TECHNOLOGY, EMISSION LIMITS AND MONITORING REQUIREMENTS.....	22
A.    NOx Control Technology and Emission Limits .....	22
B.    NOx Continuous Emission Monitoring Systems.....	33
SECTION VI: SO2 CONTROL TECHNOLOGY, EMISSION LIMITS AND MONITORING REQUIREMENTS .....	35
A.    SO2 Control Technology and Emission Limits .....	35
B.    SO2 Continuous Emission Monitoring Systems.....	41
SECTION VII: PM CONTROL TECHNOLOGY, EMISSION LIMITS AND MONITORING REQUIREMENTS .....	43
A.    PM Control Technology and Emission Limits .....	43
B.    PM Continuous Emission Monitoring Systems.....	45
SECTION VIII: OTHER INJUNCTIVE RELIEF .....	46
SECTION IX: TEMPORARY CESSION OF KILN OPERATION .....	48
SECTION X: ELECTION TO RETIRE AND REPLACE KILNS.....	49
SECTION XI: PROHIBITION ON NETTING CREDITS OR OFFSETS FROM REQUIRED CONTROLS .....	50
SECTION XII: PERMITS .....	51
SECTION XIII: REVIEW AND APPROVAL OF SUBMITTALS .....	55
SECTION XIV: REPORTING REQUIREMENTS .....	56
SECTION XV: STIPULATED PENALTIES .....	60
SECTION XVI: FORCE MAJEURE .....	69
SECTION XVII: DISPUTE RESOLUTION.....	71
SECTION XVIII: INFORMATION COLLECTION AND RETENTION.....	76
SECTION XIX: EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS.....	78
SECTION XX: COSTS .....	82
SECTION XXI: NOTICES.....	82
SECTION XXII: EFFECTIVE DATE .....	85
SECTION XXIII: RETENTION OF JURISDICTION.....	85
SECTION XXIV: MODIFICATION .....	86
SECTION XXV: TERMINATION .....	86
SECTION XXVI: PUBLIC PARTICIPATION .....	88
SECTION XXVII: SIGNATORIES/SERVICE .....	88
SECTION XXVIII: INTEGRATION.....	89
SECTION XXIX: FINAL JUDGMENT .....	89
SECTION XXX: APPENDICES.....	89

WHEREAS, Plaintiff, the United States of America, on behalf of the United States Environmental Protection Agency (herein “U.S. EPA”) has, simultaneously with the lodging of this Consent Decree, filed a Complaint against Defendant Ash Grove Cement Company (“Defendant”), pursuant to Sections 113(b) and 167 of the Clean Air Act (“Clean Air Act or Act”), 42 U.S.C. §§ 7413(b) and 7477, for injunctive relief and the assessment of civil penalties for violations of one or more of the following statutory and regulatory requirements of the Act at one or more of each of Defendant’s Portland cement plants which collectively are located in nine (9) different states within the United States: the Prevention of Significant Deterioration (“PSD”) provisions of the Act, 42 U.S.C. §§ 7470-7492; and/or the nonattainment New Source Review (“nonattainment NSR”) provisions of the Act, 42 U.S.C. §§ 7501-7515; the New Source Performance Standards (“NSPS”) provisions of the Act, 42 U.S.C. § 7411; the federally-approved and enforceable state implementation plans (“SIPs”), which incorporate and/or implement the above-listed federal PSD and/or nonattainment NSR requirements and NSPS Requirements; Title V of the Act, 42 U.S.C. §§ 7661-7661f; and Title V’s implementing federal and state regulations;

WHEREAS, this Consent Decree sets forth injunctive relief in which Defendant has agreed to substantially reduce its emissions of sulfur dioxide, nitrogen oxide, and particulate matter at all nine of its Portland cement manufacturing facilities in the United States in such a manner that would resolve Defendant’s alleged violations of the PSD, NNSR, NSPS, and Title V requirements of the Act;

WHEREAS, the State of Arkansas on behalf of the Arkansas Department of Environmental Quality, the Idaho Department of Environmental Quality, the State of Kansas, the State of Montana on behalf of the Montana Department of Environmental Quality, the State of

Nebraska on behalf of the Nebraska Department of Environmental Quality, the State of Oregon on behalf of the Oregon Department of Environmental Quality, the State of Utah on behalf of the Utah Department of Environmental Quality, the Washington State Department of Ecology, and the Puget Sound Clean Air Agency (collectively, “State Agency Plaintiffs”) have joined as Co-Plaintiffs;

WHEREAS, U.S. EPA has provided notice of the violations alleged herein to the Defendant and to each of the states where Defendant’s Facilities identified in the Complaint are located, and to the Puget Sound Clean Air Agency, pursuant to Section 113(a) of the Act, 42 U.S.C. § 7413(a), and Defendant stipulates that it has received actual notice of the violations alleged in the Complaint and that it does not contest the adequacy of the notice provided;

WHEREAS, Defendant denies the allegations of the Complaint of the United States and the State Plaintiffs 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;

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:

## **SECTION I: JURISDICTION AND VENUE**

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

2. For purposes of this Consent Decree, 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; Section 111 of the Act, 42 U.S.C. § 7411; and Title V of the Act, 42 U.S.C. §§ 7661-7661f; and Title V's implementing federal and state laws and regulations.

## **SECTION II: APPLICABILITY**

4. The obligations of this Consent Decree apply to and are binding upon the United States, the State Agency Plaintiffs and upon the Defendant, and any successors, assigns, or other entities or persons otherwise bound by law.

5. At least 30 Days prior to any transfer of ownership or operation of any Facility identified in Paragraph 8.x, Defendant shall provide a copy of this Consent Decree to the proposed transferee and shall simultaneously provide written notice of the prospective transfer, together with a copy of the proposed written agreement, to U.S. EPA, the United States, and the Affected State(s) in accordance with Section XXI (Notices) of this Consent Decree. No transfer

of ownership or operation of a Facility identified in Paragraph 8.x, whether in compliance with the procedures of this Paragraph or otherwise, shall relieve Defendant of its obligation to ensure that the terms of the Decree are implemented, unless:

- a. the transferee agrees, in writing, to undertake the obligations required by Sections V (NO<sub>x</sub> Control Technology, Emission Limits, and Monitoring Requirements), VI (SO<sub>2</sub> Control Technology, Emission Limits, and Monitoring Requirements), Section VII (PM Control Technology, Emission Limits and Monitoring Requirements), Section IX (Temporary Cessation of Kiln Operation), Section XI (Prohibition on Netting Credits or Offsets from Required Controls), Section XII (Permits), Section XIII (Review and Approval of Submittals), Section XIV (Reporting Requirements), Section XV (Stipulated Penalties), Section XVI (Force Majeure), Section XVII (Dispute Resolution), Section XVIII (Information Collection and Retention) and the requirements of Appendix A, B, and C of this Consent Decree applicable to such Facility and further agrees in writing to be substituted for the 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(s) determine that the transferee has the financial and technical ability to assume the Consent Decree's obligations applicable to such Facility;
- c. the United States and the Affected State(s) consent, in writing, to relieve 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 XXIV (Modification).

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

6. The 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. 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, Defendant shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree.

### **SECTION 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. Definitions stated in this Consent Decree are exclusively for the purpose of interpreting and applying the Consent Decree terms and are not intended to establish any type of determination under circumstances not covered by the Consent Decree. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

- a. “12-Month Rolling Tonnage Limit” shall mean, with respect to Midlothian Kiln 3 after Reconstruction and the Montana City Kiln after Replacement, the maximum allowable tons of emission of a specified air pollutant from such Kiln during any consecutive period of twelve months, expressed as Tons of such air pollutant.

Compliance with the 12-Month Rolling Tonnage Limit for NO<sub>x</sub> or SO<sub>2</sub> shall be determined on a monthly basis by summing the total Tons of air pollutant in question emitted from the Kiln during the most recent complete month and the previous eleven (11) months, as measured pursuant to Section V.B. (NO<sub>x</sub> Continuous Emission Monitoring Systems) or Section VI.B. (SO<sub>2</sub> Continuous Emission Monitoring Systems), of this Consent Decree. Compliance with the 12-Month Rolling Tonnage Limit for PM shall be determined on a monthly basis by compliance with the performance testing and continuous parametric monitoring requirements in Section VII.B (PM Continuous Parametric Monitoring Systems). A new compliance determination of the 12-Month Rolling Tonnage Limit shall be calculated for each new complete month in accordance with the provisions of this Consent Decree. In calculating each compliance determination of the 12-Month Rolling Tonnage Limit for NO<sub>x</sub> and SO<sub>2</sub> at any Kiln, the total Tons of such air pollutant emitted from the Kiln shall include all emissions of that air pollutant during each Startup, Shutdown, or Malfunction that occurs during the 12-month period at issue.

- b. “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 of such air pollutant emitted per Ton of clinker produced. Compliance with the 30-Day Rolling Average Emission Limit shall be determined in accordance with the following procedure, beginning on the date on which the 30-Day Rolling Average Emission Limit applies pursuant to Appendix A, or pursuant to Section V (NO<sub>x</sub> Control Technology, Emission Limits and Monitoring Requirements), or Section VI (SO<sub>2</sub>

Control Technology, Emission Limits and Monitoring Requirements): first, sum the total pounds of the air pollutant in question emitted from the Kiln or Kilns during that Operating Day and the previous twenty-nine (29) Operating Days as measured pursuant to Section V.B. (NO<sub>x</sub> Continuous Emission Monitoring Systems), or Section VI.B. (SO<sub>2</sub> Continuous Emission Monitoring Systems), as applicable; second, sum the total Tons of clinker produced by the Kiln or Kilns during the same Operating Day and previous 29 Operating Days; and third, divide the total number of pounds of the air pollutant emitted from the Kiln or Kilns during the thirty (30) Operating Days by the total Tons of clinker produced by such Kiln or Kilns during the same 30 Operating Days. A new compliance determination of the 30-Day Rolling Average Emission Limit shall be calculated for each new Operating Day in accordance with the provisions of this Consent Decree. In calculating each compliance determination of the 30-Day Rolling Average Emission Limit in accordance with this Paragraph 8.b, for NO<sub>x</sub> or SO<sub>2</sub> at any Facility, the total pounds of such air pollutant emitted from the Kiln or Kilns during a specified period (Operating Day or 30-Day Period) shall include all emissions of that pollutant from the subject Kiln that occur during the specified period, including emissions during each Startup, Shutdown, or Malfunction, except to the extent a Malfunction qualifies as a Force Majeure event under Section XVI and Defendant has complied with the requirements of that Section. Compliance with the 30-Day Rolling Average Emission Limits established in Section VII (PM Control Technology, Emission Limits and Monitoring Requirements) shall be demonstrated by operating the PM CPMS at each Kiln consistent with the

- performance testing and continuous parametric monitoring requirements in Section VII.B (PM Continuous Parametric Monitoring Systems).
- c. “30-Day Rolling Average Emission Rate” shall mean, with respect to each Kiln subject to Appendix A, the rate of emission of NO<sub>x</sub> expressed as pounds (lbs.) per Ton of clinker produced at such Kiln(s) and calculated in accordance with the following procedure: first, sum the total pounds of the pollutant in question emitted from the specified Kiln(s) during an Operating Day and the previous twenty-nine (29) Operating Days, as measured pursuant to Section V.B. (NO<sub>x</sub> Continuous Emission Monitoring Systems); second, sum the total Tons of clinker produced by that Kiln during the same Operating Day and previous 29 Operating Days; and third, divide the total number of pounds of NO<sub>x</sub> emitted from the Kiln(s) during the thirty (30) Operating Days referred to above by the total Tons of clinker produced at such Kiln(s) during the same 30 Operating Days. A new 30-Day Rolling Average Emission Rate shall be calculated for each new Operating Day. In calculating each 30-Day Rolling Average Emission Rate, the total pounds of NO<sub>x</sub> emitted from a Kiln during a specified period (Operating Day or 30-Day Period) shall include all emissions of that pollutant from the subject Kiln that occur during the specified period, including emissions during each Startup, Shutdown, or Malfunction, except to the extent a Malfunction qualifies as a Force Majeure event under Section XVI and Defendant has complied with the requirements of that Section;
- d. “Affected State” shall mean any State Agency Plaintiff having jurisdiction over a Facility addressed in this Consent Decree;

- e. “Baghouse” shall mean a pollution control system used for the removal and collection of Particulate Matter from Kiln flue gases;

- f. “Business Day” means any Day, except for Saturday, Sunday, and federal holidays.

In computing any period of time used as a deadline for submission under this Consent Decree, where the last Day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next Business Day;

- g. “CEMS” or “Continuous Emission Monitoring System” shall mean, for obligations involving NO<sub>x</sub> and SO<sub>2</sub>, 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<sub>x</sub> and SO<sub>2</sub> 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;

- h. “CPMS” or “Continuous Parametric Monitoring System” shall mean, for obligations involving PM under this Consent Decree, the total equipment and software required to establish and monitor a site-specific operating limit corresponding to the results of the performance test demonstrating compliance with the PM limit in accordance with 40 C.F.R. § 63.1350;

- i. “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 where the technology is otherwise activated;

- j. “Complaint” shall mean the complaint filed by the United States and State Agency Plaintiffs in this action;

- k. “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;
- l. “Continuously Operate” or “Continuous Operation” shall mean that when a Control Technology is used at a Kiln, it shall be operated at all times of Kiln Operation, excluding Malfunction of the Control Technology, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for such Control Technology and the Kiln. For example, the requirement to continuously operate SNCR does not require that the SNCR be operated under conditions where the Kiln has not reached or is no longer maintaining the minimum temperature for reagent injection.
- m. “Contractor” shall mean any person or entity hired by Defendant to perform services on its behalf necessary to comply with the provisions of this Consent Decree;
- n. “Control Technology” shall mean Selective Non-Catalytic Reduction; Dry Absorbent Addition; Semi-Dry Flue Gas Desulphurization (“Semi-Dry Scrubber”); or Baghouse.
- o. “Date of Lodging of the Consent Decree” or “Date of Lodging” shall mean the date the Consent Decree is filed for lodging with the Clerk of the Court for the United States District Court for the District of Kansas;
- p. “Day” shall mean a calendar day unless expressly stated to be a Business Day;
- q. “Defendant” or “Ash Grove” shall mean Ash Grove Cement Company;
- r. “Demonstration Phase” shall mean that period of time identified in Appendix A, following optimization, and at the conclusion of which, Defendant will propose a 30-Day Rolling Average Emission Limit for NO<sub>x</sub> that is achievable through the

implementation of SNCR Control Technology at the Montana City Kiln, and that is consistent with optimized operation of the Louisville ACL Kiln and Seattle Kiln, and that will be applied in accordance with Sections V (NO<sub>x</sub> Control Technology, Emission Limits, and Monitoring Requirements) of this Consent Decree;

- s. “Demonstration Phase 30-Day Rolling Average Emission Limit” shall mean the 30-Day Rolling Average Emission Limit that applies upon Defendant’s commencement of Continuous Operation of SNCR Control Technology at the Montana City Kiln and until the Defendant proposes a 30-Day Rolling Average Emission Limit for NO<sub>x</sub> applicable to the Montana City Kiln in accordance with the procedures of Appendix A to this Consent Decree;
- t. “Dry Absorbent Addition” or “DAA” shall mean a pollution control system that combines a dry alkaline reagent directly with the Kiln gas stream to achieve the reduction of sulfur dioxide emissions;
- u. “Effective Date” shall have the meaning given in Paragraph 138;
- v. “Emission Limit” shall mean the maximum allowable Emission Rate of a specified air pollutant from any Kiln or Kilns and shall be expressed as pounds of such air pollutant emitted per Ton of clinker produced;
- w. “Emission Rate” for a specified air pollutant from any Kiln or Kilns shall mean the number of pounds of such air pollutant emitted per Ton of clinker measured in accordance with this Consent Decree.
- x. “Facilities” shall mean the following nine (9) Portland cement manufacturing facilities used for the production of Portland cement. Each of these facilities may be referred to as a “Facility.”

- (1) Foreman Cement Plant, 4343 Highway 108, Foreman, Arkansas, 71836  
(hereinafter “Foreman, Arkansas”);
  - (2) Chanute Cement Plant, 1801 Santa Fe Ave., Chanute, Kansas, 66720 (hereafter  
“Chanute, Kansas”);
  - (3) Durkee Cement Plant, 33060 Shirttail Creek Rd., Durkee, Oregon 97905-0287  
(hereinafter “Durkee, Oregon”);
  - (4) Leamington Cement Plant, 600 West Highway 132, Leamington, Utah 84638  
(hereinafter “Leamington, Utah”);
  - (5) Seattle Cement Plant, 3801 E. Marginal Away, S., Seattle, Washington 98134-  
1147 (hereinafter “Seattle, Washington”);
  - (6) Louisville Cement Plant, 16215 Highway 50, Louisville, Nebraska 68037  
(hereinafter “Louisville, Nebraska”);
  - (7) Midlothian Cement Plant, 900 Gifco Road, Midlothian, Texas 76065 (hereinafter  
“Midlothian, Texas”);
  - (8) Montana City Cement Plant, 100 Highway 518, Clancy, Montana 59634-9701  
(hereinafter “Montana City, Montana”);
  - (9) Inkom Cement Plant, 230 Cement Road, Inkom, Idaho 83245-1543 (hereinafter  
“Inkom, Idaho”);
- y. “Kiln” as used in this Consent Decree shall mean a device, including any associated preheater or precalciner devices, inline raw mills, inline coal mills or alkali bypasses that produces clinker by heating limestone and other materials for subsequent production of portland cement. Because the inline raw mill is considered an integral part of the Kiln, for purposes of determining the appropriate emissions limit, the term

Kiln also applies to the exhaust of the inline raw mill. The following are identified as the individual Kilns at each Facility:

- (1) Foreman, Arkansas: Foreman Kiln 4;
  - (2) Chanute, Kansas: Chanute Kiln 1;
  - (3) Durkee, Oregon: Durkee Kiln 1;
  - (4) Leamington, Utah: Leamington Kiln 1;
  - (5) Seattle, Washington: Seattle Kiln 1 or “the Seattle Kiln”;
  - (6) Louisville, Nebraska: Louisville ACL Kiln , Louisville HW Kiln;
  - (7) Midlothian, Texas: Midlothian Kiln 1, Midlothian Kiln 2, Midlothian Kiln 3;
  - (8) Montana City, Montana: Montana City Kiln 1 or “the Montana City Kiln”; and
  - (9) Inkom, Idaho: Inkom Kiln 1, Inkom Kiln 2.
- z. “Kiln Operation” shall mean any period when any raw materials are fed into the Kiln and any combustion is occurring in the Kiln;
- aa. “Malfunction” as used in this Consent Decree shall have the same meaning as defined at 40 C.F.R. § 60.2;
- bb. “National Ambient Air Quality Standards” or “NAAQS” shall mean national ambient air quality standards that are promulgated pursuant to Section 109 of the Act, 42 U.S.C. § 7409;
- cc. “New Source Performance Standards” or “NSPS” shall mean those standards and emission limitations applicable to the emissions of NO<sub>x</sub>, SO<sub>2</sub>, and PM from

- existing, modified or reconstructed Portland cement manufacturing facilities, codified at 40 C.F.R. Part 60, Subpart F;
- dd. “NO<sub>x</sub>” shall mean oxides of nitrogen, measured in accordance with the provisions of this Consent Decree;
- ee. “Non-attainment NSR” shall mean the non-attainment area New Source Review (NSR) program within the meaning of Part D of Subchapter I of the Act, 42 U.S.C. §§ 7501-7515, 40 C.F.R. Part 51, and any applicable State Implementation Plan.
- ff. “Operating Day” shall mean any Day on which Kiln Operation has occurred;
- gg. “Operating Month” shall mean any calendar month in which Kiln Operation has occurred;
- hh. “Paragraph” shall mean a portion of this Decree identified by an Arabic numeral;
- ii. “Particulate,” “Particulate Matter” or “PM” shall have the same meaning as in 40 C.F.R. Part 63, Subpart LLL.
- jj. “Parties” shall mean the United States, the State Agency Plaintiffs and their agencies and political subdivisions having jurisdiction over a Facility, and Ash Grove;
- kk. “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;
- ll. “Reconstruct” or “Reconstruction” shall mean the replacement of components of an existing Kiln to such an extent that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to

construct a comparable entirely new Kiln. For purposes of this definition, “fixed capital cost” shall mean the capital needed to provide all the depreciable components. The evaluation as to whether a Kiln has been Reconstructed shall be performed consistent with guidance issued by EPA in applying the definition of “reconstruction” in 40 C.F.R. § 60.15(b).

mm. “Replace” or “Replacement” shall mean the construction of a new Kiln or Reconstruction of an existing Kiln at the Montana City Facility pursuant to Section V (NO<sub>x</sub> Control Technology, Emission Limits, and Monitoring Requirements), Section VI (SO<sub>2</sub> Control Technology, Emission Limits, and Monitoring Requirements) or Section VII (PM Control Technology, Emission Limits, and Monitoring Requirements) of this Consent Decree;

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

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

pp. “Selective Non-Catalytic Reduction” or “SNCR” shall mean a pollution control system that injects an ammonia-based reagent into the gas stream without the use of a catalyst for the purpose of reducing NO<sub>x</sub> emissions;

qq. “Shut Down” shall mean the cessation of kiln operation. Shutdown begins when feed to the kiln is halted and ends when continuous kiln rotation ceases;

rr. “Site Specific Operating Limit” or “SSOL” is the parametric limit used to monitor the operation of the particulate control device. The SSOL is also referred to as the

- “site specific CPMS limit” in 40 CFR Part 63 Subpart LLL. The SSOL requirements are contained in paragraph 60 and Appendix C of this Decree.
- ss. “SO<sub>2</sub>” shall mean the pollutant sulfur dioxide, measured in accordance with the provisions of this Consent Decree;
- tt. “Startup” shall mean the time from when a shutdown kiln first begins firing fuel until it begins producing clinker. Startup begins when a shutdown kiln turns on the induced draft fan and begins firing fuel in the main burner. Startup ends when feed is being continuously introduced into the kiln for at least 120 minutes or when the feed rate exceeds 60 percent of the kiln design limitation rate, whichever occurs first;
- uu. “State Agency Plaintiff” or “State” shall mean any of the following: the State of Arkansas on behalf of the Arkansas Department of Environmental Quality, the Idaho Department of Environmental Quality, the State of Kansas, the State of Montana on behalf of the Montana Department of Environmental Quality, the State of Nebraska on behalf of the Nebraska Department of Environmental Quality, the State of Oregon on behalf of the Oregon Department of Environmental Quality, the State of Utah on behalf of the Utah Department of Environmental Quality, the Washington State Department of Ecology, and the Puget Sound Clean Air Agency. State Agency Plaintiff shall include, for the foregoing, any agencies and political subdivisions having jurisdiction over a Facility;
- vv. “Temporary Cessation,” “Temporary Cessation of Kiln Operation” or “Temporarily Cease Kiln Operation” shall mean the period when a Kiln is not in a

state of Kiln Operation and Defendant has provided the required notice pursuant to Paragraph 67 of Section IX (Temporary Cessation of Kiln Operation) of this Consent Decree;

- ww. "Title V permit" shall mean a permit required by and issued in accordance with the requirements of 42 U.S.C. §§ 7661 - 7661f;
- xx. "Ton" or "Tons" shall mean short ton or short tons;
- yy. "United States" shall mean the United States of America, acting on behalf of U.S. EPA;
- zz. "U.S. EPA" shall mean the United States Environmental Protection Agency and any of its successor departments or agencies; and
- aaa. "Semi -Dry Flue Gas Desulphurization System," "Semi-Dry FGD," or "Semi-Dry Scrubber" shall mean a pollution control system that employs semi-dry gas scrubber technology to achieve the reduction of sulfur dioxide emissions.

#### **SECTION IV: CIVIL PENALTY**

9. Within thirty (30) Days after the Effective Date of this Consent Decree, Defendant shall pay to the United States as a civil penalty the sum of \$1,666,000 together with interest accruing from the Effective Date through the date of payment, at the rate specified in 28 U.S.C. § 1961 as of the Effective Date. Defendant 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 Defendant following lodging of the Consent Decree by the Financial Litigation Unit of the U.S. Attorney's Office for the District of Kansas, 1200 Epic Center, 301 N. Main, Wichita, Kansas, 67202. At the time of payment, Defendant 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. Ash Grove Cement Company, and shall reference the civil action number and DOJ case number 90-5-2-1-09875, to the United States in accordance with Section XXI 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, Defendant shall pay civil penalties, together with interest accruing from the Effective Date through the date of payment at the rate identified in Paragraph 9, in the following amounts to the following Affected States in accordance with the payment instructions below:

<b>State Agency</b>	<b>Amount</b>	<b>Payment Instructions</b>
State of Arkansas	\$103,000	Arkansas Department of Environmental Quality Fiscal 5301 Northshore Drive North Little Rock, AR 72118-5317

Idaho Department of Environmental Quality	\$103,000	<p>Check payable in amount of \$77,250, stating “Wood Stove Change-Out Supplemental Environmental Project” in the memo line and mailed to:</p> <p>Fiscal Office Idaho Department of Environmental Quality 1410 N. Hilton Boise, Idaho 83706</p> <p>Check payable in amount of \$25,750, stating “Civil Penalty Payment” in memo line and mailed to:</p> <p>Fiscal Office Idaho Department of Environmental Quality 1410 N. Hilton Boise, Idaho 83706</p>
State of Kansas	\$113,000	<p>Check payable and mailed to:</p> <p>Kansas Department of Health and Environment Address: Kansas Department of Health and Environment 1000 SW Jackson Street, Suite 310 Topeka, Kansas 66612-1366 Attn: Sheila Pendleton</p> <p>The memorandum portion of the check shall identify the case number.</p>
State of Montana	\$103,000	<p>Check or money order, made payable to the “Montana Department of Environmental Quality,” and sent to the Department at</p> <p>John L. Arrigo, Administrator Enforcement Division Department of Environmental Quality 1520 East Sixth Avenue P.O. Box 200901 Helena, MT 59620-0901</p>

State of Nebraska	\$103,000	<p>Checks shall be made to Cass County District Court Clerk and shall be mailed with notice referring to this action, to:</p> <p>Katherine J. Spohn Deputy Attorney General 2115 State Capitol Lincoln, NE 68508-8920</p>
State of Oregon	\$103,000	<p>In accordance with Oregon DEQ's directive on state Supplemental Environmental Projects (SEPs), Defendant shall fund a SEP for woodstove change outs in Lakeview, Oregon per the application submitted to DEQ from the South Central Oregon Economic Development District (SCOEDD).</p> <p>Check in the amount of \$82,400 payable to SCOEDD with SEP in the memo line, mailed to:</p> <p>SCOEDD c/o Betty Riley PO Box 1529 Klamath Falls, OR 97601</p> <p>Check in the amount of \$20,600 payable to State Treasurer, State of Oregon, mailed to:</p> <p>DEQ, Business Office 811 S.W. Sixth Avenue Portland, OR 97204</p>
State of Utah	\$103,000	<p>Check payable and mailed to:</p> <p>Utah Division of Air Quality Multi Agency State Office Building 195 North 1950 West, Fourth Floor Salt Lake City, Utah 84116</p>

Washington State Department of Ecology	\$20,600	<p>Check payable and mailed to:</p> <p>Department of Ecology Cashiering Unit P.O. Box 47611 Olympia, WA 98504-7611</p> <p>The Memorandum on the check should reference NR13168001 and “Ash Grove Settlement”</p>
Puget Sound Clean Air Agency	\$82,400	<p>Check payable to “Puget Sound Clean Air Agency”:</p> <p>Craig Kenworthy Executive Director Puget Sound Clean Air Agency 1904 3rd Ave, Suite 105 Seattle WA USA 98101</p>
<b>TOTAL</b>	<b>\$834,000</b>	

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

#### **SECTION V: NO<sub>x</sub> CONTROL TECHNOLOGY, EMISSION LIMITS AND MONITORING REQUIREMENTS**

##### **A. NO<sub>x</sub> Control Technology and Emission Limits**

12. Subject to Section IX (Temporary Cessation of Kiln Operation), Defendant shall install the NO<sub>x</sub> Control Technology and comply with the Emission Limits for the specific Kilns within its system according to Paragraphs 13 through 31. Defendant shall Continuously Operate each NO<sub>x</sub> Control Technology.

##### **Foreman, Arkansas**

13. Defendant shall have installed and Commenced Continuous Operation of the SNCR technology at Foreman Kiln 4 by the date specified in the table below in this Paragraph 13:

<b>Kiln</b>	<b>Control Technology</b>	<b>Date of Installation and Deadline for Commencement of Continuous Operation</b>	<b>30-Day Rolling Average Emission Limit (lbs. NO<sub>x</sub>/Ton of clinker)</b>
Kiln 4	SNCR	12/31/15	1.5

Defendant shall Continuously Operate the SNCR technology by no later than the date specified in the table above.

14. Beginning on the Operating Day which is the 30<sup>th</sup> Operating Day after the date by which Defendant is required to Commence Continuous Operation of the SNCR technology at Foreman Kiln 4 identified in Paragraph 13, Defendant shall demonstrate compliance and thereafter maintain compliance with the 30-Day Rolling Average Emission Limit for NO<sub>x</sub> specified in Paragraph 13 at that Kiln.

#### **Chanute, Kansas**

15. Defendant shall have installed and Commenced Continuous Operation of the SNCR technology at Chanute Kiln 1 by the date specified in the table below in this Paragraph 15:

<b>Kiln</b>	<b>Control Technology</b>	<b>Date of Installation and Deadline for Commencement of Continuous Operation</b>	<b>30-Day Rolling Average Emission Limit (lbs. NO<sub>x</sub>/Ton of clinker)</b>
Kiln 1	SNCR	12/31/15	1.5

Defendant shall Continuously Operate the SNCR technology by no later than the date specified in the table above.

16. Beginning on the Operating Day which is the 30<sup>th</sup> Operating Day after the date by which Defendant is required to Commence Continuous Operation of the SNCR technology at Chanute Kiln 1 identified in Paragraph 15 Defendant shall demonstrate compliance and

thereafter maintain compliance with the 30-Day Rolling Average Emission Limit for NO<sub>x</sub> specified in Paragraph 15 at that Kiln.

**Durkee, Oregon**

17. Defendant shall have installed and Commenced Continuous Operation of the SNCR technology at Durkee Kiln 1 by the date specified in the table below in this Paragraph 17:

Kiln	Control Technology	Date of Installation and Deadline for Commencement of Continuous Operation	30-Day Rolling Average Emission Limit (lbs. NO <sub>x</sub> /Ton of clinker)
Kiln 1	SNCR	3/31/15	2.0

Defendant shall Continuously Operate the SNCR technology by no later than the date specified in the table above.

18. Beginning on the Operating Day which is the 30<sup>th</sup> Operating Day after the date by which Defendant is required to Commence Continuous Operation of the SNCR technology at Durkee Kiln 1 identified in Paragraph 17, Defendant shall demonstrate compliance and thereafter maintain compliance with the 30-Day Rolling Average Emission Limit for NO<sub>x</sub> specified in Paragraph 17 at that Kiln.

**Leamington, Utah**

19. Defendant shall have installed and Commenced Continuous Operation of the SNCR Control Technology at Leamington Kiln 1 by the date specified in the table below in this Paragraph 19:

Kiln	Control Technology	Date of Installation and Deadline for Commencement of Continuous Operation	30-Day Rolling Average Emission Limit (lbs. NO <sub>x</sub> /Ton of clinker)
Kiln 1	SNCR	12/10/2013	2.8

Defendant shall Continuously Operate the SNCR technology by no later than the date specified in the table above.

20. Beginning on the Operating Day which is the 30<sup>th</sup> Operating Day after the date by which Defendant is required to Commence Continuous Operation of the SNCR technology at Leamington Kiln 1 identified in Paragraph 19, Defendant shall demonstrate compliance and thereafter maintain compliance with the 30-Day Rolling Average Emission Limit for NO<sub>x</sub> specified in Paragraph 19 at that Kiln. Defendant need not demonstrate compliance at the stack venting exhaust gases from the Leamington coal mill. However, Defendant shall control indirect-fired coal mill feed gas from the kiln exhaust according to the standard protocol of the coal mill system. Defendant shall not adjust, increase or activate the coal mill feed gas in order to affect the emissions at the main stack in any way or to reduce the amount of reagent Ash Grove uses in the SNCR.

**Seattle, Washington**

21. Defendant shall submit pursuant to Section XXI of this Consent Decree (Notices) an optimization protocol for the Seattle Kiln in accordance with the applicable procedures of Appendix A to this Consent Decree, hereinafter the Seattle Kiln NO<sub>x</sub> Emission Reduction Report, for the purpose of optimizing the operation of the Seattle Kiln to reduce NO<sub>x</sub> emissions to the maximum extent practicable from that Kiln. The Seattle Kiln NO<sub>x</sub> Emission Reduction Report shall conform to the applicable procedures set forth in Appendix A for the establishment of a 30-Day Rolling Average Emission Limit for NO<sub>x</sub> at the Seattle Kiln. Consistent with the requirements and deadlines specified in Appendix A, Defendant shall demonstrate compliance and thereafter maintain compliance with the proposed 30-Day Rolling Average Emission Limit for NO<sub>x</sub> at the Seattle Kiln. Defendant need not demonstrate compliance at the stack venting

exhaust gases from the Seattle coal mill. However, Defendant shall control indirect-fired coal mill feed gas from the kiln exhaust according to the standard protocol of the coal mill system. Defendant shall not adjust, increase or activate the coal mill feed gas in order to affect the emissions at the main stack in any way.

22. U.S. EPA, in consultation with the Puget Sound Clean Air Agency, shall review the Seattle Kiln NO<sub>x</sub> Emission Reduction Report in accordance with Section XIII (Review and Approval of Submittals). Consistent with the requirements and deadlines specified in Appendix A, Defendant shall take all actions required pursuant to that review, including but not limited to achieving and maintaining compliance with the 30-Day Rolling Average Emission Limit for NO<sub>x</sub> at the Seattle Kiln approved, conditionally approved, or partially approved by U.S. EPA pursuant to Section XIII (Review and Approval of Submittals).

#### **Louisville, Nebraska**

23. Louisville ACL Kiln.

a. Defendant shall submit pursuant to Section XXI of this Consent Decree (Notices) an optimization protocol for the Louisville ACL Kiln in accordance with the applicable procedures of Appendix A to this Consent Decree, hereinafter the Louisville ACL Kiln NO<sub>x</sub> Emission Reduction Report, for the purpose of optimizing the operation of Louisville ACL Kiln to reduce NO<sub>x</sub> emissions to the maximum extent practicable from that Kiln. The Louisville ACL Kiln NO<sub>x</sub> Emission Reduction Report shall conform to the applicable procedures and schedule set forth in Appendix A for the establishment of a 30-Day Rolling Average Emission Limit for NO<sub>x</sub> at the Louisville ACL Kiln. Consistent with the requirements and deadlines specified in Appendix A, Defendant shall

demonstrate compliance and thereafter maintain compliance with the proposed 30-Day Rolling Average Emission Limit for NO<sub>x</sub> at the Louisville ACL Kiln.

b. U.S. EPA, in consultation with the State of Nebraska, shall review the Louisville ACL Kiln NO<sub>x</sub> Emission Reduction Report in accordance with Section XIII (Review and Approval of Submittals). Consistent with the requirements and deadlines specified in Appendix A, Defendant shall take all actions required pursuant to that review, including but not limited to achieving and maintaining compliance with the 30-Day Rolling Average Emission Limit for NO<sub>x</sub> at the Louisville ACL Kiln approved, conditionally approved, or partially approved by U.S. EPA pursuant to Section XIII (Review and Approval of Submittals).

24. Louisville HW Kiln.

- a. Defendant shall have installed and Commenced Continuous Operation of the SNCR technology at the Louisville HW Kiln by the date specified in the table below in this Paragraph 24.a:

Kiln	Control Technology	Date of Installation and Deadline for Commencement of Continuous Operation	30-Day Rolling Average Emission Limit (lbs. NO <sub>x</sub> /Ton of clinker)
HW Kiln	SNCR	9/10/2014	3.5

Defendant shall Continuously Operate the SNCR technology by no later than the date specified in the table above.

- b. Beginning on the Operating Day which is the 30<sup>th</sup> Operating Day after the date by which Defendant is required to Commence Continuous Operation of the SNCR technology at Louisville HW Kiln identified in Paragraph 24.a, Defendant shall demonstrate compliance and thereafter maintain compliance with the 30-Day

Rolling Average Emission Limit for NOx specified in Paragraph 24.a at that Kiln.

Defendant need not demonstrate compliance at the stack venting exhaust gases from the Louisville HW coal mill. However, Defendant shall control indirect-fired coal mill feed gas from the kiln exhaust according to the standard protocol of the coal mill system. Defendant shall not adjust, increase or activate the coal mill feed gas in order to affect the emissions at the main stack in any way or to reduce the amount of reagent Ash Grove uses in the SNCR.

**Midlothian, Texas**

25. Defendant shall Retire Midlothian Kiln 1 and Midlothian Kiln 2 by the dates specified in the table below in this Paragraph 25. Defendant shall not Operate Midlothian Kiln 3 after the dates specified in the table below in this Paragraph 25 unless and until Midlothian Kiln 3 has been Reconstructed.

Kiln	Control Technology	Deadline for Retirement or Commencement of Continuous Operation	30-Day Rolling Average Emission Limits (lbs. NO <sub>x</sub> /Ton of clinker)
Kiln 1	Retire	9/10/2014	0
Kiln 2	Retire	9/10/2014	0
Kiln 3	Retire or Reconstruct with SNCR	First Operating Day after 9/10/2014	1.5

If Defendant Reconstructs Midlothian Kiln 3, then commencing on the date specified in the table above, Defendant shall Continuously Operate the SNCR Control Technology on Midlothian Kiln 3.

26. If Defendant Reconstructs Midlothian Kiln 3, then beginning on the Operating Day which is the 30<sup>th</sup> Operating Day after the date identified in Paragraph 25 by which Defendant is required to Operate the Reconstructed Midlothian Kiln 3, Defendant shall demonstrate compliance and thereafter maintain compliance at the stack for Kiln 3 with the 30-Day Rolling Average Emission Limit for NO<sub>x</sub> specified in Paragraph 25. By no later than September 10, 2015, Defendant shall demonstrate compliance and maintain compliance with a 12-Month Rolling Tonnage Limit for NO<sub>x</sub> of 975 tons per year at Midlothian Kiln 3.

**Montana City, Montana**

27. By no later than 60 Days after the Effective Date, Defendant shall Continuously Operate Low NO<sub>x</sub> Burner technology at Montana City Kiln 1 specified in the table below in this Paragraph 27. In addition, Defendant shall have installed and Commenced Continuous Operation of the SNCR Control Technology at Montana City Kiln 1 by the date specified in the table below in this Paragraph 27:

Kiln	Control Technology	Date of Installation and Deadline for Commencement of Continuous Operation	Demonstration Phase 30-Day Rolling Average Emission Limit (lbs. NO <sub>x</sub> /Ton of clinker)	30-Day Rolling Average Emission Limit (lbs. NO <sub>x</sub> /Ton of clinker)
Kiln 1	Low NO <sub>x</sub> Burner	60 Days after Effective Date	--	See Appendix A
	SNCR	9/10/2014	8.0	

Beginning on the Operating Day which is the 30<sup>th</sup> Operating Day after September 10, 2014, Defendant shall demonstrate compliance and thereafter maintain compliance with the Demonstration Phase 30-Day Rolling Average Emission Limit for NO<sub>x</sub> of 8.0 lb/ton of clinker at the Montana City Kiln.

28. Pursuant to Appendix A, Defendant shall propose to U.S. EPA and the Montana Department of Environmental Quality a 30-Day Rolling Average Emission Limit for NO<sub>x</sub> applicable to Montana City Kiln 1 that is no less stringent than 8.0 lb NO<sub>x</sub>/ton of clinker and that represents the optimal performance and Continuous Operation of the SNCR Control Technology.

- a. Within 30 Days after proposing a 30-Day Rolling Average Emission Limit for NO<sub>x</sub> at Montana City Kiln 1 under Appendix A, Defendant shall demonstrate compliance and thereafter maintain compliance with the proposed 30-Day Rolling Average Emission Limit for NO<sub>x</sub> at the Kiln. U.S. EPA shall review the proposed 30-Day Rolling Average Emission Limit for NO<sub>x</sub> applicable to Montana City Kiln 1 in consultation with the Montana Department of Environmental Quality. Within 30 Operating Days after U.S. EPA has notified Defendant of the completion of its review of the proposed 30-Day Rolling Average Emission Limit for NO<sub>x</sub>, Defendant shall demonstrate compliance and thereafter maintain compliance with the 30-Day Rolling Average Emission Limit for NO<sub>x</sub> approved, conditionally approved, or partially approved by U.S. EPA pursuant to Section XIII (Review and Approval of Submittals).
- b. If, on or before May 4, 2015, Defendant provides notice to EPA pursuant to Section XXI of the Consent Decree (Notices) that it intends to Replace Montana City Kiln 1 and shall Retire the existing Montana City Kiln 1 within 42 months, then Defendant's obligations under Appendix A shall terminate immediately, but Defendant shall continue to comply with the Demonstration Phase 30-Day Rolling Average Emission Limit for NO<sub>x</sub> and continuously operate the SNCR for the time period prior to Retirement of Montana City Kiln 1.

29. If Defendant elects to Replace Montana City Kiln 1 in accordance with Section X (Election to Retire and Replace Kilns), then Defendant shall:

- a. Prior to Replacing Montana City Kiln 1 and prior to termination pursuant to Section XXV of this Consent Decree (Termination), submit an application for a federally enforceable preconstruction permit for the Replacement of the Montana City Kiln that is issued under the federally-approved minor or major new source review program and which incorporates, at a minimum, a proposed 30-Day Rolling Average Emission Limit for NO<sub>x</sub> that is no less stringent than 1.5 lb/ton clinker, or the applicable NSPS, whichever is more stringent. Such application for a federally enforceable preconstruction permit shall also contain, at a minimum, a proposed 12-Month Rolling Tonnage Limit for NO<sub>x</sub> of no more than 700 tons per year. Defendant shall thereafter take all other actions necessary to obtain such permits or approvals after filing the applications including, but not limited to, responding to reasonable requests for additional information by the permitting authority in a timely fashion, and conducting any environmental or other assessment lawfully required by the permitting authority.
- b. Within 180 Days after Defendant commences Operation of the Replaced Montana City Kiln, Defendant shall demonstrate compliance and maintain compliance with the Control Technology and other applicable requirements of Paragraph 29.a. applicable to the Replaced Montana City Kiln, or those Control Technology and Emission Limits for NO<sub>x</sub> imposed by the federally enforceable preconstruction permit(s), whichever are more stringent.

**Inkom, Idaho**

30. Prior to Startup of Inkom Kiln 1 and/or Inkom Kiln 2, Defendant shall first apply for and obtain applicable permits required under: (1) the PSD provisions of the Act, 42 U.S.C. §§ 7470-7492 and/or the nonattainment NSR provisions of the Act, 42 U.S.C. §§ 7501-7515; or (2) the federally-approved and enforceable SIP which incorporates and/or implements the federal PSD and/or nonattainment NSR requirements. At a minimum, any such application for the foregoing permit(s) shall require that Defendant install and Commence Continuous Operation of SNCR Control Technology at each Kiln, as specified in the table below in this Paragraph 30:

<b>Kiln</b>	<b>Control Technology</b>	<b>Date of Installation and Deadline for Commencement of Continuous Operation</b>	<b>30-Day Rolling Average Emission Limit (lbs. NO<sub>x</sub>/Ton of clinker)</b>
Kiln 1	SNCR	Upon Startup	1.5
Kiln 2	SNCR	Upon Startup	1.5

Defendant shall Continuously Operate the SNCR Control Technology by no later than the date specified in the table above.

31. Beginning on the Operating Day which is the 30<sup>th</sup> Day after the date by which Defendant is required to Commence Continuous Operation of the SNCR technology at Inkom Kiln 1 and Inkom Kiln 2 identified in Paragraph 30, Defendant shall demonstrate compliance and thereafter maintain compliance with the 30-Day Rolling Average Emission Limit for NO<sub>x</sub> specified in the table in Paragraph 30 at Inkom Kiln 1 and Inkom Kiln 2, or those Emission Limits for NO<sub>x</sub> required under the federally enforceable preconstruction permit(s) required in Paragraph 30, above, whichever are more stringent.

**B. NO<sub>x</sub> Continuous Emission Monitoring Systems**

32. At each Kiln identified in Paragraph 8.y of this Decree other than the Midlothian Kilns and the Inkom Kilns, Defendant shall install and make operational no later than twelve months after the Effective Date a NO<sub>x</sub> continuous emissions monitoring system (CEMS) at each stack which collects emissions from such Kiln in accordance with the requirements of 40 C.F.R. Part 60. Notwithstanding the foregoing, Defendant shall install and make operational a NO<sub>x</sub> CEMS at each stack which collects emissions from Midlothian Kiln 3 in accordance with the requirements of 40 C.F.R. Part 60 within 60 Days after achieving the maximum production rate at which the Reconstructed Kiln will be operated, but not later than 180 Days after Defendant first Operates the Reconstructed Kiln. Defendant shall install and make operational a NO<sub>x</sub> CEMS at each stack which collects emissions from Inkom Kiln 1 or Inkom Kiln 2 in accordance with the requirements of 40 C.F.R. Part 60 not later than 180 Days after Startup of the Kiln. Defendant is not required to install or operate NO<sub>x</sub> CEMS on the stack(s) of the indirect fired coal mills serving the Leamington, Louisville HW and Seattle Kilns.

33. On or before the date that a NO<sub>x</sub> CEMS is required pursuant to Paragraph 32, 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.; 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. Defendant shall calculate 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 it is not necessary to retroactively change clinker production rates previously estimated.

34. Except during CEMS breakdowns, repairs, calibration checks, and zero span adjustments, the CEMS required pursuant to Paragraph 32 shall be operated at all times during Kiln Operation. Each such CEMS shall be used at each Kiln to demonstrate compliance with the NO<sub>x</sub> Emission Limits established in Section V.A (NO<sub>x</sub> Control Technology and Emission Limits) and Appendix A, as applicable, of this Consent Decree. If Defendant Reconstructs or Replaces the Montana City Kiln, it shall commence operation of the NO<sub>x</sub> CEMS for that Kiln within 60 Days after achieving the maximum production rate at which the Montana City Replacement Kiln will be operated, but not later than 180 Days after Defendant first Operates the Montana City Replacement Kiln .

35. Each NO<sub>x</sub> CEMS required pursuant to Paragraph 32 shall monitor and record the applicable NO<sub>x</sub> emission rate from each Kiln stack in units of lbs. of NO<sub>x</sub> 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.

36. For purposes of this Consent Decree, all emissions of NO<sub>x</sub> from Kilns shall be measured by CEMS. During any time when CEMs are inoperable and otherwise not measuring emissions of NO<sub>x</sub> from any Kiln, Defendant shall apply the missing data substitution procedures used by the Affected State or the missing data substitution procedures in 40 C.F.R. Part 75, Subpart D, whichever is deemed appropriate by the Affected State.

## **SECTION VI: SO<sub>2</sub> CONTROL TECHNOLOGY, EMISSION LIMITS AND MONITORING REQUIREMENTS**

### **A. SO<sub>2</sub> Control Technology and Emission Limits**

37. Defendant shall, as applicable, install the SO<sub>2</sub> Control Technology and comply with the Emission Limits for the specific Kilns within their system according to Paragraphs 38 through 50. Defendant shall Continuously Operate each SO<sub>2</sub> Control Technology.

#### **Foreman, Arkansas**

38. Defendant shall demonstrate compliance and thereafter maintain compliance with the 30-Day Rolling Average Emission Limit for SO<sub>2</sub> at Foreman Kiln 4 on the 30<sup>th</sup> Operating Day following the date specified in the table below in this Paragraph 38:

Kiln	Date on Which 30-Day Rolling Average Emission Limit Applies	30-Day Rolling Average Emission Limit (lbs. SO <sub>2</sub> /Ton of clinker)
Kiln 4	12/31/15	0.6

#### **Chanute, Kansas**

39. Defendant shall demonstrate compliance and thereafter maintain compliance with the 30-Day Rolling Average Emission Limit for SO<sub>2</sub> at Chanute Kiln 1 on the 30<sup>th</sup> Operating Day following the date specified in the table below in this Paragraph 39:

Kiln	Date on Which 30-Day Rolling Average Emission Limit Applies	30-Day Rolling Average Emission Limit (lbs. SO <sub>2</sub> /Ton of clinker)
Kiln 1	12/31/15	0.6

#### **Durkee, Oregon**

40. Defendant shall demonstrate compliance and thereafter maintain compliance with the 3-hour Emission Limit for SO<sub>2</sub> at Durkee Kiln 1 by performing the emissions testing

required under Paragraph 55 and comparing the average of the valid test runs to the limit specified in the table below in this Paragraph 40:

<b>Kiln</b>	<b>Date on Which Emission Limit Applies</b>	<b>Emission Limit (lbs. SO<sub>2</sub>/Ton of clinker)</b>
Kiln 1	3/31/2015	0.4

**Leamington, Utah**

41. Defendant shall demonstrate compliance and thereafter maintain compliance with the 3-hour Emission Limit for SO<sub>2</sub> at Leamington Kiln 1 by performing the emissions testing required under Paragraph 55 and comparing the average of the valid test runs to the limit specified in the table below in this Paragraph 41:

<b>Kiln</b>	<b>Date on Which Emission Limit Applies</b>	<b>Emission Limit (lbs. SO<sub>2</sub>/Ton of clinker)</b>
Kiln 1	9/10/2013	0.4

Defendant need not demonstrate compliance with the 3-hour Rolling Average Emission Limit for SO<sub>2</sub> at the stack venting exhaust gases from the Leamington coal mill. However, Defendant shall control indirect-fired coal mill feed gas from the kiln exhaust according to the standard protocol of the coal mill system. Defendant shall not adjust, increase or activate the coal mill feed gas in order to affect the emissions at the main stack in any way.

**Seattle, Washington**

42. Defendant shall demonstrate compliance and thereafter maintain compliance with the 30-Day Rolling Average Emission Limit for SO<sub>2</sub> at Seattle Kiln 1 on the 30<sup>th</sup> Operating Day following the date specified in the table below in this Paragraph 42:

<b>Kiln</b>	<b>Date on Which 30-Day Rolling Average Emission Limit Applies</b>	<b>30-Day Rolling Average Emission Limit (lbs. SO<sub>2</sub>/Ton of clinker)</b>
Kiln 1	9/10/2013	0.4

Defendant need not demonstrate compliance with the 30-Day Rolling Average Emission Limit for SO<sub>2</sub> at the stack venting exhaust gases from the Seattle coal mill. However, Defendant shall control indirect-fired coal mill feed gas from the kiln exhaust according to the standard protocol of the coal mill system. Defendant shall not adjust, increase or activate the coal mill feed gas in order to affect the emissions at the main stack in any way.

#### **Louisville, Nebraska**

43. Defendant shall demonstrate compliance and thereafter maintain compliance with the 30-Day Rolling Average Emission Limit for SO<sub>2</sub> at the Louisville HW Kiln and Louisville ACL Kiln by the date specified in the table below in this Paragraph 43:

<b>Kiln</b>	<b>Control Technology</b>	<b>Date of Installation and Deadline for Commencement of Continuous Operation</b>	<b>30-Day Rolling Average Emission Limit (lbs. SO<sub>2</sub>/Ton of clinker)</b>
HW Kiln	DAA	9/10/2015	2.6
ACL Kiln	DAA	9/10/2015	3.0

Defendant shall Continuously Operate the DAA Control Technology by no later than the dates specified in the table above at Louisville HW Kiln and Louisville ACL Kiln.

44. Beginning on the Operating Day which is the 30<sup>th</sup> Operating Day after the date by which Defendant is required to Commence Continuous Operation of the DAA Control Technology at Louisville HW Kiln and at the Louisville ACL Kiln identified in Paragraph 43, Defendant shall demonstrate compliance and thereafter maintain compliance with the 30-Day

Rolling Average Emission Limits for SO<sub>2</sub> each applicable to the Louisville HW Kiln and the Louisville ACL Kiln specified in Paragraph 43 at that Kiln. Defendant need not demonstrate compliance with the 30-Day Rolling Average Emission Limit for SO<sub>2</sub> at the stack venting exhaust gases from the Louisville HW coal mill. However, Defendant shall control indirect-fired coal mill feed gas from the kiln exhaust according to the standard protocol of the coal mill system. Defendant shall not adjust, increase or activate the coal mill feed gas in order to affect the emissions at the main stack in any way or to reduce the amount of reagent Ash Grove uses in the DAA.

**Midlothian, Texas**

45. Defendant shall Retire Midlothian Kiln 1 and Midlothian Kiln 2 by the dates specified in the table below in Paragraph 25 and in this Paragraph 45. Defendant shall not Operate Midlothian Kiln 3 after the date specified in the table below in this Paragraph 45 unless Defendant has Reconstructed Kiln 3.

Kiln	Control Technology	Date of Retirement or Installation and Deadline for Commencement of Continuous Operation	30-Day Rolling Average Emission Limits (lbs. SO <sub>2</sub> /Ton of clinker)
Kiln 1	Retire	9/10/2014	0
Kiln 2	Retire	9/10/2014	0
Kiln 3	Retire or Reconstruct with Inherent Scrubbing	First Operating Day after 9/10/2014	0.4

Commencing on the date specified in the table above, Defendant shall Continuously Operate Midlothian Kiln 3 in a manner consistent with good air pollution control practice for minimizing emissions during all times of Kiln Operation.

46. If Defendant Reconstructs Midlothian Kiln 3, then beginning on the Operating Day which is the 30<sup>th</sup> Operating Day after the date identified in Paragraph 45 for Commencement of Continuous Operation of the Reconstructed Kiln 3, at the stack for Kiln 3 Defendant shall demonstrate compliance and thereafter maintain compliance with the 30-Day Rolling Average Emission Limit for SO<sub>2</sub> identified in Paragraph 45. By no later than September 10, 2015, Defendant shall demonstrate compliance and maintain compliance with a 12-Month Rolling Tonnage Limit for SO<sub>2</sub> of 260 tons per year at Midlothian Kiln 3.

**Montana City, Montana**

47. Defendant shall have installed and Commenced Continuous Operation of the Semi-Dry Scrubbing Control Technology at the Montana City Kiln by the date specified in the table below in this Paragraph 47:

Kiln	Control Technology	Date of Installation and Deadline for Commencement of Continuous Operation	30-Day Rolling Average Emission Limit (lbs. SO <sub>2</sub> /Ton of clinker)
Kiln 1	Semi-Dry Scrubbing	9/10/2014	2.0

Starting on the 210<sup>th</sup> Operating Day following the date specified in the table above in this Paragraph 47, Defendant shall demonstrate compliance and thereafter maintain compliance with the 30-Day Rolling Average Emission Limit for SO<sub>2</sub> applicable to Montana City Kiln 1 and as identified in this Paragraph 47.

48. If Defendant elects to Replace Montana City Kiln 1 in accordance with Section X (Election to Retire and Replace Kilns), then Defendant shall:

- a. Prior to Replacing Montana City Kiln 1 and prior to termination pursuant to Section XXV of this Consent Decree (Termination), submit an application for a federally enforceable preconstruction permit for the Replacement of Montana

City Kiln 1 that is issued under the federally-approved minor or major new source review program and which incorporates, at a minimum, a proposed 30-Day Rolling Average Emission Limit for SO<sub>2</sub> that is no less stringent than 0.4 lb/ton clinker, or the applicable NSPS, whichever is more stringent. Such application for a federally enforceable preconstruction permit shall also contain, at a minimum, a proposed 12-Month Rolling Tonnage Limit for SO<sub>2</sub> of no greater than 200 tons per year. Defendant shall thereafter take all other actions necessary to obtain such permits or approvals after filing the applications including, but not limited to, responding to reasonable requests for additional information by the permitting authority in a timely fashion, and conducting any environmental or other assessment lawfully required by the permitting authority.

- b. Within 180 Days after Defendant commences Operation of the Replaced Montana City Kiln, Defendant shall demonstrate compliance and maintain compliance with applicable requirements of Paragraph 48.a. at the Replaced Montana City Kiln, or those Control Technology requirements and Emission Limit(s) for SO<sub>2</sub> imposed by the federally enforceable preconstruction permit(s), whichever are more stringent.

#### **Inkom, Idaho**

49. Prior to Startup of Inkom Kiln 1 and/or Inkom Kiln 2, Defendant shall first apply for and obtain applicable permits required under: (1) the PSD provisions of the Act, 42 U.S.C. §§ 7470-7492 and/or the nonattainment NSR provisions of the Act, 42 U.S.C. §§ 7501-7515; or (2) the federally-approved and enforceable SIP which incorporates and/or implements the federal PSD and/or nonattainment NSR requirements. At a minimum, any such application for the

foregoing permit(s) shall require that Defendant achieve and maintain compliance with the Emission Limits, as specified in the table below in this Paragraph 49:

Kiln	Date on Which 30-Day Rolling Average Emission Limit for SO <sub>2</sub> Applies	30-Day Rolling Average Emission Limit (lbs. SO <sub>2</sub> /Ton of clinker)
Kiln 1	Upon Startup	0.4
Kiln 2	Upon Startup	0.4

50. Beginning on the 30th Operating Day of each Inkom Kiln 1 and Inkom Kiln 2 identified in Paragraph 49, Defendant shall demonstrate compliance and thereafter maintain compliance with the 30-Day Rolling Average Emission Limit for SO<sub>2</sub> specified in the table in Paragraph 49 at Inkom Kiln 1 and Inkom Kiln 2, or those Emission Limits for SO<sub>2</sub> required under the federally enforceable preconstruction permit(s) required in Paragraph 49, above, whichever are more stringent.

#### **B. SO<sub>2</sub> Continuous Emission Monitoring Systems**

51. At each Kiln identified in Paragraph 8.y of this Decree except Durkee Kiln 1, Leamington Kiln 1, the Midlothian Kilns and the Inkom Kilns, Defendant shall install and make operational no later than twelve months after the Effective Date a SO<sub>2</sub> continuous emissions monitoring system (CEMS) at each stack which collects emissions from such Kiln in accordance with the requirements of 40 C.F.R. Part 60. Notwithstanding the foregoing, Defendant shall install and make operational an SO<sub>2</sub> CEMS at each stack which collects emissions from Midlothian Kiln 3 in accordance with the requirements of 40 C.F.R. Part 60 within 60 Days after achieving the maximum production rate at which the Reconstructed Kiln will be operated, but not later than 180 Days after Defendant first Operates the Reconstructed Kiln. Defendant shall install and make operational an SO<sub>2</sub> CEMS at each stack which collects emissions from Inkom

Kiln 1 or Inkom Kiln 2 in accordance with the requirements of 40 C.F.R. Part 60 not later than 180 Days after Startup of the Kiln. Defendant is not required to install or operate SO<sub>2</sub> CEMS on the stack(s) of the indirect fired coal mills serving the Leamington, Louisville HW and Seattle Kilns.

52. Except during CEMS breakdowns, repairs, calibration checks, and zero span adjustments, the CEMS required pursuant to Paragraph 51 shall be operated at all times during Kiln Operation. Each such CEMS shall be used at each Kiln to demonstrate compliance with the SO<sub>2</sub> Emission Limits established in Section V.A (SO<sub>2</sub> Control Technology and Emission Limits) of this Consent Decree. If Defendant Replaces the Montana City Kiln, it shall commence operation of the SO<sub>2</sub> CEMS for that Kiln within 60 Days after achieving the maximum production rate at which the Replaced Montana City Kiln will be operated, but not later than 180 Days after Defendant first Operates the Replaced Montana City Kiln.

53. Each SO<sub>2</sub> CEMS required pursuant to Paragraph 51 shall monitor and record the applicable SO<sub>2</sub> emission rate from each Kiln stack in units of lbs. of SO<sub>2</sub> 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.

54. For purposes of this Consent Decree, all emissions of SO<sub>2</sub> from Kilns other than Durkee Kiln 1 and Leamington Kiln 1 shall be measured by CEMS. During any time when CEMs are inoperable and otherwise not measuring emissions of SO<sub>2</sub> from any Kiln, Defendant shall apply the missing data substitution procedures used by the Affected State or the missing data substitution procedures in 40 C.F.R. Part 75, Subpart D, whichever is deemed appropriate by the Affected State.

55. Within 12 months of the Effective Date, Defendant shall conduct an SO<sub>2</sub> source

test for Durkee Kiln 1 and Leamington Kiln 1 and submit an application to the Durkee and Leamington Title V permitting authority requesting that a condition be added to the Title V permit, if no such condition already exists, requiring Kiln stack SO<sub>2</sub> testing at least once every two (2) years.

## **SECTION VII: PM CONTROL TECHNOLOGY, EMISSION LIMITS AND MONITORING REQUIREMENTS**

### **A. PM Control Technology and Emission Limits**

56. At each of the Kilns identified in Paragraph 8.y and by each of the dates specified in the table below, Defendant shall demonstrate compliance and thereafter maintain compliance with the PM limit specified in the table. Compliance shall be demonstrated using a three run EPA Method 5 or Method 5I performance test and that performance test shall be repeated no less frequently than every 365 Operating Days thereafter. If performance testing would be required less than 15 Operating Days after the Kiln has completed Startup after being down for more than 24 hours, then performance testing may be deferred up to 15 Operating Days after completion of the Startup. Defendant need not demonstrate compliance at the stack venting exhaust gases from the Leamington, Louisville HW and Seattle coal mills. However, Defendant shall control indirect-fired coal mill feed gas from the kiln exhaust according to the standard protocol of the coal mill system. Defendant shall not adjust, increase or activate the coal mill feed gas in order to affect the emissions at the main stack in any way. The methods specified in this Decree for demonstrating compliance with the PM limits in the table below are not intended to change the means by which Defendant demonstrates compliance with standards not addressed by this Decree.

57. Subject to Section IX of this Consent Decree (Temporary Cessation of Kiln Operation), Defendant shall install and Commence Continuous Operation of each Baghouse Control Technology by the deadline shown below.

<b>Kiln</b>	<b>Date of Installation and Deadline for Commencement of Continuous Operation of Baghouse</b>	<b>Emission Limit (lbs. PM/Ton of clinker)</b>
Chanute Kiln 1	12/31/2015	0.086
Durkee Kiln 1	3/31/2015	0.07
Foreman Kiln 4	12/31/2015	0.086
Leamington Kiln 1	12/10/2013	0.07
Louisville ACL Kiln	9/10/2014	0.07
Louisville HW Kiln	9/10/2014	0.07
Midlothian Kiln 3	9/10/2014	0.07
Montana City Kiln 1	9/10/2014	0.07
Seattle Kiln 1	9/10/2013	0.07

58. Prior to Startup of Inkom Kiln 1 and/or Inkom Kiln 2, Defendant shall first apply for and obtain applicable permits required under: (1) the PSD provisions of the Act, 42 U.S.C. §§ 7470-7492 and/or the nonattainment NSR provisions of the Act, 42 U.S.C. §§ 7501-7515; or (2) the federally-approved and enforceable SIP which incorporates and/or implements the federal PSD and/or nonattainment NSR requirements. At a minimum, any such application for the

foregoing permit(s) shall require that Defendant achieve and maintain compliance with the Emission Limits, as specified in the table below in this Paragraph 58:

Kiln	Date on Which Emission Limit for PM Applies	Emission Limit (lbs. PM /Ton of clinker)
Kiln 1	Upon Startup	0.02, or the NSPS for new kilns, whichever is more stringent
Kiln 2	Upon Startup	0.02, or the NSPS for new kilns, whichever is more stringent

Within 60 Days after achieving the maximum production rate at which a particular Inkom Kiln will be operated, but not later than 180 Days after the particular Kiln first Operates, Defendant shall demonstrate compliance using a three run EPA Method 5 or Method 5I stack test and thereafter achieve and maintain compliance with the Emission Limit for PM specified in the table in this Paragraph 58 at Inkom Kiln 1 and Inkom Kiln 2, or the Emission Limit(s) for PM required under the federally enforceable preconstruction permit(s) required in this Paragraph 58, above, whichever are more stringent, using the PM Continuous Parametric Monitoring System required by Paragraph 59.

#### **B. PM Continuous Parametric Monitoring Systems**

59. At each Kiln identified in Paragraph 8.y of this Decree and by the deadline identified in Paragraph 57, Defendant shall install and make operational a PM continuous parametric monitoring system (CPMS) at each stack from which the Kiln directly discharges emissions, in accordance with the requirements of Appendix B and 40 C.F.R. §63.1350(b) and (d). Defendant is not required to install or operate PM CPMS on the stack(s) of the indirect fired coal mills serving the Leamington, Louisville HW and Seattle Kilns unless otherwise required to do so under any other applicable regulation. Location of the PM CPMS at Foreman will be in a position to monitor operating parameter data from both the Kiln and clinker cooler. If Defendant

Replaces the Montana City Kiln, it shall commence operation of the PM CPMS for that Kiln within 60 Days after achieving the maximum production rate at which the Replacement Kiln 1 will be operated, but not later than 180 Days after Defendant first Operates the Replaced Montana City Kiln. Location of the PM CPMS at the Replaced Montana City Kiln shall be in a position to monitor operating parameter data from both the Kiln and clinker cooler (if the Montana City clinker cooler's exhaust is vented to the main stack).

60. Ash Grove shall use a PM CPMS to establish a Site-Specific Operating Limit (SSOL) for PM corresponding to the results of the performance test demonstrating compliance with the PM limit. Ash Grove shall conduct a performance test using EPA Method 5 or Method 5I at appendix A-3 of 40 C.F.R. Part 60. Pursuant to Section XXI of this Decree (Notices), Ash Grove may propose an alternative monitoring protocol that is at least as accurate as a PM CPMS installed or to be installed at a Kiln pursuant to Paragraph 59 by the deadline required in that Paragraph, whereby Ash Grove demonstrates continuous compliance with the applicable limit in Paragraph 57 as a 30-Day Rolling Average Emission Limit. EPA shall review the alternative monitoring protocol pursuant Section XIII of this Decree (Review and Approval of Submittals). If approved or approved with conditions, Ash Grove shall comply with the approved alternative monitoring protocol and take all actions required pursuant thereto, and shall not be required to install and operate a PM CPMS under Paragraph 59, to establish an SSOL under this Paragraph and to perform annual performance testing under Paragraph 56 at any Kiln for which an alternative monitoring protocol has been approved.

#### **SECTION VIII: OTHER INJUNCTIVE RELIEF**

61. Defendant shall implement the Environmental Mitigation Projects (“Project” or “Projects”) described in Appendix C to this Consent Decree.

62. Defendant, shall maintain, and, within 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 XXI (Notices).

63. Defendant certifies that Defendant is not otherwise required by law to perform any of the Projects, that Defendant is unaware of any other person who is required by law to perform any of the Projects, and that Defendant will not use any of the Projects, or portion thereof, to satisfy any obligations that it may have under other applicable requirements of law.

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

65. Within sixty (60) Days following the completion of all Projects required under this Consent Decree, Defendant shall submit to U.S. EPA a report that documents the date that each Project was completed, Defendant's results from implementing all Projects, including the emission reductions or other environmental benefits achieved (including the emission reductions achieved for NOx, SO<sub>2</sub>, and PM), and the money expended by Defendant in implementing each Project.

66. In connection with any communication to the public or to shareholders regarding Defendant's actions or expenditures relating in any way to the Projects, Defendant shall include prominently in the communication the information that the actions and expenditures were required as part of a negotiated consent decree to resolve allegations that Defendant violated the Clean Air Act.

## **SECTION IX: TEMPORARY CESSATION OF KILN OPERATION**

67. If Defendant has Temporarily Ceased Kiln Operation of any Kiln on the date by which Defendant is required to install and/or Continuously Operate any Control Technology at that Kiln under Section V (NO<sub>x</sub> Control Technology, Emission Limits, and Monitoring Requirements), Section VI (SO<sub>2</sub> Control Technology, Emission Limits, and Monitoring Requirements), or Section VII (PM Control Technology, Emission Limits, and Monitoring Requirements), Defendant shall provide written notice to U.S. EPA and the Affected State(s) within ten (10) Days after such Temporary Cessation began, specifying the date on which such period of Temporary Cessation began. Defendant shall provide such written notice pursuant to Section XXI (Notices).

68. If Defendant has provided the written notice as required in Paragraph 67, above, Defendant shall not be required to install and Continuously Operate the Control Technology at that Kiln by the dates required in Section V (NO<sub>x</sub> Control Technology, Emission Limits, and Monitoring Requirements), Section VI (SO<sub>2</sub> Control Technology, Emission Limits, and Monitoring Requirements), and Section VII (PM Control Technology, Emission Limits, and Monitoring Requirements) of this Consent Decree with respect to that Kiln. However, Defendant shall not recommence Kiln Operation after the date required in Section V (NO<sub>x</sub> Control Technology, Emission Limits, and Monitoring Requirements), Section VI (SO<sub>2</sub> Control Technology, Emission Limits, and Monitoring Requirements), and Section VII (PM Control Technology, Emission Limits, and Monitoring Requirements) of this Consent Decree with respect to that Kiln unless the Defendant has 1) installed and Commenced Continuous Operation of the Control Technology required by this Consent Decree for that Kiln, 2) commenced compliance with all requirements for that Kiln contained in Section V (NO<sub>x</sub> Control Technology,

Emission Limits, and Monitoring Requirements), Section VI (SO<sub>2</sub> Control Technology, Emission Limits, and Monitoring Requirements), and Section VII (PM Control Technology, Emission Limits and Monitoring Requirements) and 3) provided notice to U.S. EPA and the Affected State(s) within 30 Days after recommencing Kiln Operation. If Defendant recommences Kiln Operation without installing and Commencing Continuous Operation of the Control Technology required under this Decree and does not demonstrate compliance with all requirements for that Kiln contained in Section V (NO<sub>x</sub> Control Technology, Emission Limits, and Monitoring Requirements), Section VI (SO<sub>2</sub> Control Technology Emission Limits, and Monitoring Requirements), and/or Section VII (PM Control Technology, Emission Limits and Monitoring Requirements), Defendant shall be liable for stipulated penalties pursuant to Section XV (Stipulated Penalties).

69. Notwithstanding Paragraph 68, above, if Defendant Temporarily Ceases Kiln Operation for twenty-four (24) consecutive months subsequent to the Effective Date of this Consent Decree, prior to recommencing Kiln Operation Defendant shall first apply for and obtain applicable permits required under: (1) the PSD provisions of the Act, 42 U.S.C. §§ 7470-7492 and/or the nonattainment NSR provisions of the Act, 42 U.S.C. §§ 7501-7515; or (2) the applicable federally-approved and enforceable SIP which incorporates and/or implements the federal PSD and/or nonattainment NSR requirements, as applicable.

#### **SECTION X: ELECTION TO RETIRE AND REPLACE KILNS**

70. At least 180 Days prior to submitting a written request by Defendant to terminate this Consent Decree, Defendant shall provide written notice to U.S. EPA, Director of the Air Enforcement Division, and the State of Montana, stating whether Defendant intends to Replace Montana City Kiln 1.

## **SECTION XI: PROHIBITION ON NETTING CREDITS OR OFFSETS FROM REQUIRED CONTROLS**

71. Except as specifically stated to the contrary in this Consent Decree, NO<sub>x</sub>, SO<sub>2</sub> and PM emission reductions resulting from compliance with the requirements of this Consent Decree shall not be considered as a creditable contemporaneous emission decrease for the purpose of obtaining a netting credit under the Clean Air Act's Non-attainment NSR and PSD programs.

72. The limitations on the generation and use of netting credits or offsets set forth in Paragraph 71 do not apply to emission reductions achieved by Defendant that are surplus to those required under this Consent Decree ("surplus emission reductions"). For purposes of this Paragraph, surplus emission reductions are the reductions over and above those required under this Consent Decree that result from Defendant's compliance with federally enforceable emissions limits that are more stringent than limits imposed under this Consent Decree or from Defendant's compliance with emissions limits otherwise required under applicable provisions of the Clean Air Act or with an applicable SIP that contains more stringent limits than those imposed under this Consent Decree.

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

74. Notwithstanding this Section XI (Prohibition on Netting Credits or Offsets from Required Controls), nothing in this Consent Decree prohibits Defendant from relying upon the emission reductions for purposes of determining whether there is a net emissions increase or

significant net emissions increase of any pollutant where the construction approval relying on that netting analysis was issued prior to the Date of Lodging of this Consent Decree.

75. Notwithstanding this Section XI (Prohibition on Netting Credits or Offsets from Required Controls), nothing in this Consent Decree prohibits Defendant from relying upon the emission reductions resulting from compliance with this Consent Decree for purposes of determining whether there is a net emissions increase or significant net emissions increase of NO<sub>x</sub>, SO<sub>2</sub> or PM from the Replacement of the Montana City Kiln if, within twelve (12) consecutive months of commencing operation of the Montana City Replacement Kiln, Defendant achieves and maintains a 12-Month Rolling Tonnage Limit for NO<sub>x</sub> of 700 tons per year, a 12-Month Rolling Tonnage Limit for SO<sub>2</sub> of 200 tons per year and a 12-Month Rolling Tonnage Limit for PM of 32.7 tons per year.

## **SECTION XII: PERMITS**

76. Where any compliance obligation under this Consent Decree requires Defendant to obtain a federal, State, or local permit or approval, 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 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 Defendant demonstrates that it exercised best efforts to timely fulfill its permitting obligations and has otherwise satisfied the requirements of Section XVI of this Consent Decree (Force Majeure). If, after demonstrating compliance with the requirements of this Paragraph, Defendant determines that it is unable to timely obtain a permit or approval necessary to install and continuously operate a Control

Technology under this Consent Decree, then Defendant shall immediately notify EPA and the Affected State pursuant to Section XVI of this Consent Decree (Force Majeure) and shall request an extension of time necessary to obtain such permit or approval and install and shake down the required improvements. If EPA and the Affected State determine that Defendant's inability to timely obtain any such required permit or approval is a *force majeure* event, then the provisions of Paragraph 108 shall apply to extend the deadline for installation and commencement of Continuous Operation of the Control Technology and for achieving and maintaining compliance with any applicable Emission Limits. Subject to the requirements of this Section, nothing in this Consent Decree shall be construed to require Ash Grove to apply for or obtain a PSD or Non-attainment NSR permit or SIP amendment to permit any actions required under this Consent Decree, unless otherwise required by law.

77. In addition to having first obtained any required preconstruction permits or other approvals pursuant to Paragraph 76, 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, Defendant shall apply to the Affected State to include the requirements and limitations enumerated in this Consent Decree in a construction permit or other permit or approval (other than a Title V permit) which is federally enforceable, issued under the SIP of the Affected State, and issued under authority independent of the Affected State's authority to issue Title V permits. The permit or approval shall require compliance with any applicable 30-Day Rolling Average Emission Limit and any monitoring requirements, including those in Sections V.B, VI.B, and VII.B of this Decree. Following submission of the application for the permit or approval, 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. The methods specified in this Decree for demonstrating compliance with the limits in this Decree are not intended to change the means by which Defendant demonstrates compliance with standards not addressed by this Decree. The requirements of this Paragraph are satisfied if a preconstruction permit was obtained, that permit serves as a state operating permit under the Affected State's SIP and that permit contains the elements identified in this Paragraph.

78. Within 120 Days after the establishment of any Emission Limits pursuant to Appendix A of this Consent Decree, Defendant shall submit applications to the appropriate permitting authority to incorporate all Appendix A Emission Limits, and any associated requirements and limitations, including those in Sections V (NO<sub>x</sub> Control Technology, Emission Limits and Monitoring Requirements), VI (SO<sub>2</sub> Control Technology, Emission Limits and Monitoring Requirements), and Section VII (PM Control Technology, Emission Limits and Monitoring Requirements) of this Decree, into federally enforceable construction or other permits (other than Title V permits) which are federally enforceable. Following submission of the permit application by Defendant to the Affected State, Defendant shall cooperate with the appropriate permitting authority by promptly submitting all information that such permitting authority seeks following its receipt of the permit application.

79. Upon issuance of any permit or approval required under Paragraphs 77 and 78, Defendant shall file any applications necessary to incorporate the requirements of that permit into the Title V operating permit of the appropriate Facility. Defendant shall not challenge the inclusion in any such permit of the Emission Limits expressly prescribed in this Consent Decree (including, where applicable, 30-Day Rolling Average Emission Limits determined in

accordance with Appendix A), 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 Defendant from challenging any more stringent Emission Limits should they be proposed for reasons independent of this Consent Decree.

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

81. For each Kiln, Defendant 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.

82. In lieu of incorporating the terms of the Consent Decree directly into a permit issued under a SIP pursuant to Paragraphs 77 and 78, Defendant may request an Affected State to submit the portions of the Consent Decree applicable to the Facilities in that Affected State to the U.S. EPA for approval under the State's SIP in accordance with 42 U.S.C. § 7410(k). Upon approval by the U.S. EPA, those portions of this Consent Decree will be incorporated into the Affected State's SIP, and subsequently incorporated into Title V permits for each Facility consistent with applicable requirements in 40 C.F.R. Part 70 or State-specific rules adopted and approved consistent with Part 70. 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.

83. 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 XXV (Termination) of this Consent Decree.

### **SECTION XIII: REVIEW AND APPROVAL OF SUBMITTALS**

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

85. If the submission is approved pursuant to Paragraph 84, Defendant 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 84.b or c, Defendant shall, upon written direction of U.S. EPA, after consultation with the Affected State, take all actions required by the approved plan, report, or other item that U.S. EPA, after consultation with the Affected State, determines are technically severable from any disapproved portions, subject to Defendant's right to dispute only the specified conditions or the disapproved portions, under Section XVII of this Decree (Dispute Resolution).

86. If the submission is disapproved in whole or in part pursuant to Paragraph 84.c or d, Defendant shall, within 45 Days or such other time as the Parties agree to in writing, correct

all deficiencies and resubmit the plan, report, or other item, or disapproved portion thereof, for approval, in accordance with the preceding Paragraphs. If the resubmission is approved in whole or in part, Defendant shall proceed in accordance with the preceding Paragraph.

87. Any stipulated penalties applicable to an original submission that is disapproved in whole or in part pursuant to Paragraph 84.c or d, as provided in Section XV (Stipulated Penalties) of this Decree, shall continue to accrue during the period specified in Paragraph 97, 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 Defendant's obligations under this Decree, the stipulated penalties applicable to the original submission shall be due and payable notwithstanding any subsequent resubmission.

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

#### **SECTION XIV: REPORTING REQUIREMENTS**

89. Defendant shall submit the following reports: Within 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 XXV (Termination), Defendant shall submit a semi-annual report to U.S. EPA and the Affected States for the immediately preceding half calendar year period that shall:

- a. Identify any and all dates on which Defendant has installed, or describe the progress of installation of, each Control Technology required for each Kiln under Section V (NO<sub>x</sub> Control Technology, Emission Limits and Monitoring Requirements), Section VI (SO<sub>2</sub> Control Technology, Emission Limits and Monitoring Requirements), and Section VII (PM 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 Defendant has completed installation of, or describe the progress of installation of, each continuous monitoring system required under Section V.B. (NO<sub>x</sub> Continuous Emission Monitoring Systems), Section VI.B (SO<sub>2</sub> Continuous Emission Monitoring Systems), and Section VII.B (PM Continuous Parametric Monitoring Systems) and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions;
- c. Provide, in electronic format able to be manipulated with Microsoft Excel, all CEMS data and CPMS data collected for each Kiln, reduced to 1 hour averages, in accordance with 40 C.F.R. Part 60.13(h)(2), including an explanation of any periods of CEMs or CPMS downtime together with any missing data for which Defendant applied missing data substitution procedures, under Section V.B. (NO<sub>x</sub> Continuous Emission Monitoring Systems), Section VI.B (SO<sub>2</sub> Continuous Emission Monitoring Systems), and Section VII.B (PM Continuous Parametric 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 Sections V (NO<sub>x</sub> Control Technology, Emission Limits and Monitoring Requirements), Section VI (SO<sub>2</sub> Control Technology, Emission Limits and Monitoring Requirements), and Section VII (PM Control Technology, Emission Limits and Monitoring Requirements) of this Consent Decree;
- e. Provide a complete description and status of all actions Defendant has undertaken to comply with each of the Appendices of this Consent Decree;
- f. Demonstrate compliance with any applicable 30-Day Rolling Average Emission Limits established under Appendix A of this Consent Decree;
- g. Describe the status of permit applications and any proposed SIP revisions made to implement the requirements of this Consent Decree; and
- h. Describe the status of any operation and maintenance work relating to activities required under this Consent Decree.

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

90. If Defendant violates, or has reason to believe that it may violate, any requirement of this Consent Decree, Defendant shall notify the United States and the Affected State of such violation and its likely duration, in writing, within ten (10) Business Days of the Day 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. Defendant shall investigate the cause of the violation and

shall then submit an amendment to the report required under Paragraph 89, including a full explanation of the cause of the violation, within 30 Days of the Day Defendant becomes aware of the cause of the violation. Nothing in this Paragraph or the following Paragraph relieves Defendant of its obligation to provide the notice required by Section XVI of this Consent Decree (Force Majeure) if Defendant contends a Force Majeure event occurred.

91. Whenever any violation of this Consent Decree, or of any applicable permits required under this Consent Decree, or any other event affecting Defendant's performance under this Decree, or the performance of any Facility, may pose an immediate threat to the public health or welfare or the environment, Defendant shall notify U.S. EPA and the Affected State, orally or by electronic or facsimile transmission as soon as possible, but no later than 24 hours after 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.

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

93. Each report submitted by 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.

94. The reporting requirements of this Consent Decree do not relieve Defendant 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.

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

#### **SECTION XV: STIPULATED PENALTIES**

96. Defendant shall be liable for stipulated penalties to the United States and Affected State(s) for violations of this Consent Decree as specified in Table 1 below, unless excused under Section XVI (Force Majeure). A violation includes failing to perform any obligation required by the terms of this Decree, including any work plan or schedule approved under this Decree, according to all applicable requirements of this Decree and within the specified time schedules established by or approved under this Decree. Violation of an Emission Limit that is based on a 30-Day Rolling Average is a violation on every Day on which the average is based. 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 1, 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, Defendant shall not pay a daily stipulated penalty for any Day of recurrence for which a stipulated penalty is already payable. 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 1**

<b>Consent Decree Violation</b>	<b>Stipulated Penalty</b>
Failure to pay the civil penalty as specified in Section IV (Civil Penalty) of this Consent Decree.	\$7,500 for each Day
Failure to comply with a 30-Day Rolling Average Emission Limit for NO <sub>x</sub> or SO <sub>2</sub> where the emissions are less than 5% in excess of the limits set forth in this Consent Decree.	\$1,500 for each Day during any 30-Day rolling period where the violation is less than 5% in excess of the Limit.
Failure to comply with a 30-Day Rolling Average Emission Limit for NO <sub>x</sub> or SO <sub>2</sub> where the emissions are equal to or greater than 5% but less than 10% in excess of the limits set forth in this Consent Decree	\$3,000 for each Day during any 30-Day rolling period where the violation is equal to or greater than 5% but less than 10% in excess of the Limit.
Failure to comply with a 30-Day Rolling Average Emission Limit for NO <sub>x</sub> or SO <sub>2</sub> 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.
Failure to comply with any PM Emission Limit based on performance test data	\$5,000 for each Day of violation
Failure to comply with a 12-Month Rolling Tonnage Limit at Midlothian Kiln 3 for NO <sub>x</sub> or SO <sub>2</sub> where the tons of pollutant are less than 5% in excess of the applicable 12-Month Rolling Tonnage Limit set forth in this Consent Decree.	\$7,500 for each month during the initial 12 months, and \$10,000 for each consecutive month thereafter of a violation of the 12-Month Rolling Tonnage Limit where the violation is less than 5% in excess of the Limit.

Failure to comply with a 12-Month Rolling Tonnage Limit at Midlothian Kiln 3 for NO <sub>x</sub> or SO <sub>2</sub> where the tons of pollutant are greater than 5% and less than 10% in excess of the applicable 12-Month Rolling Tonnage Limit set forth in this Consent Decree.	\$10,000 for each month during the initial 12 months, and \$15,000 for each consecutive month thereafter of a violation of the 12-Month Rolling Tonnage Limit where the violation is greater than 5% and less than 10% in excess of the Limit.
Failure to comply with a 12-Month Rolling Tonnage Limit at Midlothian Kiln 3 for NO <sub>x</sub> or SO <sub>2</sub> where the tons of pollutant are greater than 10% in excess of the applicable 12-Month Rolling Tonnage Limit set forth in this Consent Decree.	\$20,000 for each month during the initial 12 months, and \$32,500 for each consecutive month thereafter of a violation of the 12-Month Rolling Tonnage Limit where the violation is greater than 10% in excess of the Limit.
Failure to install or Commence Continuous Operation or Continuously Operate Control Technology at a Kiln required by the deadlines established in Sections V, VI and VII of this Consent Decree.	\$5,000 for each consecutive Day during the first 20 Days, \$ 10,000 for each consecutive Day for the next 40 Days, and \$32,500 for each consecutive Day thereafter.
Failure to install or Commence Continuous Operation or Continuously Operate Control Technology at a Kiln upon re-commencing operation of that Kiln following Temporary Cessation of Kiln Operation under Section IX of this Consent Decree	\$100,000 for the first Day upon re-commencing Kiln Operation and \$32,500 for each Day thereafter
Failure to apply for any permit or permit amendment or seek a SIP approval required by Section XII (Permits)	\$1,000 for each Day for each such failure
Failure to install or operate a CEMS or other monitoring device in conformance with the requirements of Section V.B. (NOx Continuous Emission Monitoring Systems), Section VI.B (SO <sub>2</sub> Continuous Emission Monitoring Systems), Section VII.B (PM Continuous Parametric Monitoring Systems), or Appendix B, as applicable.	\$1,000 for each Day for each such failure
PM CPMS deviations from the Site Specific Operating Limit leading to more than four required performance tests in a 12-month period (rolling monthly)	\$1,000 for each Day for each such failure

Failure to timely inspect, repair, or retest after a deviation of the Site Specific Operating Limit, as required in Appendix B	\$750 for each Day during the first 10 Days, \$1,000 per Day thereafter
Failure to timely submit, modify, or implement, as approved, a report, plan, study, analysis, protocol, or other submittal required by this Consent Decree	\$750 for each Day during the first 10 Days, \$1,000 per Day thereafter
Any other violation of this Consent Decree	\$1,000 for each Day for each violation

97. Subject to the provisions of Paragraph 96 above, stipulated penalties under this Section shall begin to accrue on the Day after performance is due or on the Day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree. The United States or Affected State(s), or all of the foregoing, may seek stipulated penalties under this Section. Where both the United States and the Affected State(s) seek stipulated penalties for the same violation of this Consent Decree, Defendant shall pay two thirds (2/3) of the amount in demand to the United States and one third (1/3) to the Affected State(s). If the stipulated penalty arises in relation to the Seattle Kiln, the portion of the penalty due to the Affected State shall be paid to Puget Sound Clean Air Agency.

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

99. 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. An Affected State may, in its unreviewable exercise of its discretion, reduce or waive stipulated penalties otherwise due the Affected State under this Consent Decree.

100. Defendant may assert an affirmative defense to stipulated penalties if it exceeds an emission rate due to Startup, Shutdown or Malfunction emissions provided that Defendant timely meets the notification requirements in Paragraph 90 and proves by a preponderance of the evidence that the excess emissions:

- a. Were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner, and
- b. Could not have been prevented through careful planning, proper design or better operation and maintenance practices, and
- c. Did not stem from any activity or event that could have been foreseen and avoided, or planned for, and
- d. Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance, and
- e. Repairs were made as expeditiously as possible when the applicable emission limits were being exceeded; and
- f. The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions, and
- g. If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage, and
- h. All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health, and

- i. All emissions monitoring and control systems were kept in operation if at all possible consistent with safety and good air pollution control practices, and
- j. All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs, and
- k. At all times, the affected facility was operated in a manner consistent with good practices for minimizing emissions, and
- l. A written root cause analysis has been prepared the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

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

- a. If the dispute is resolved by agreement between the Parties or by a decision of the United States or the Affected State that is not appealed to the Court, Defendant shall pay accrued penalties determined to be owing, together with interest accruing from the 31<sup>st</sup> Day after the written demand in Paragraph 97, within 30 Days of the effective date of the agreement or the receipt of U.S. EPA's or the Affected State's decision or order.
- b. If the dispute is appealed to the Court and the United States or the Affected State is the prevailing party, in whole or in part, as may be determined by the Court, Defendant shall pay all accrued penalties determined by the Court to be owing, together with interest accruing from the 31<sup>st</sup> Day after the written demand in

Paragraph 97, within 60 Days of receiving the Court's decision or order, except as provided in Subparagraph c, below.

- c. If any Party appeals the District Court's decision, Defendant shall pay all accrued penalties determined to be owing, together with interest accruing from the 31<sup>st</sup> Day after the written demand in Paragraph 97, within 15 Days of receiving the final appellate court decision.

102. Defendant shall pay stipulated penalties owing to the United States and an Affected State in the manner set forth and with the confirmation notices to the persons specified in Paragraphs 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. Defendant shall pay stipulated penalties owing to an Affected State in accordance with the instructions provided below:

**TABLE 2**

<b>State Agency</b>	<b>Payment Instructions</b>
State of Arkansas	Arkansas Department of Environmental Quality Fiscal 5301 Northshore Drive North Little Rock, AR 72118-5317
Idaho Department of Environmental Quality	Check payable and mailed to:  Fiscal Office Idaho Department of Environmental Quality 1410 N. Hilton Boise, Idaho 83706

State of Kansas	<p>Check payable and mailed to:</p> <p>Kansas Department of Health and Environment  Address: Kansas Department of Health and Environment  1000 SW Jackson Street, Suite 310  Topeka, Kansas 66612-1366  Attn: Sheila Pendleton</p> <p>The memorandum portion of the check shall identify the case number.</p>
State of Montana	<p>Check or money order, made payable to the "Montana Department of Environmental Quality," and sent to the Department at</p> <p>John L. Arrigo, Administrator  Enforcement Division  Department of Environmental Quality  1520 East Sixth Avenue  P.O. Box 200901  Helena, MT 59620-0901</p>
State of Nebraska	<p>Checks shall be made to Cass County District Court Clerk and shall be mailed with notice referring to this action, to:</p> <p>Katherine J. Spohn  Deputy Attorney General  2115 State Capitol  Lincoln, NE 68508-8920</p>
State of Oregon	<p>Check payable to State Treasurer, State of Oregon, mailed to:</p> <p>DEQ, Business Office  811 S.W. Sixth Avenue  Portland, OR 97204</p>
State of Utah	<p>Check payable and mailed to:</p> <p>Utah Division of Air Quality  Multi Agency State Office Building  195 North 1950 West, Fourth Floor  Salt Lake City, Utah 84116</p>

<p>Washington State Department of Ecology</p>	<p>Check payable and mailed to:</p> <p>Department of Ecology Cashiering Unit P.O. Box 47611 Olympia, WA 98504-7611</p> <p>The Memorandum on the check should reference NR13168001 and “Ash Grove Settlement”</p>
<p>Puget Sound Clean Air Agency</p>	<p>Check payable to “Puget Sound Clean Air Agency”:</p> <p>Craig Kenworthy Executive Director Puget Sound Clean Air Agency 1904 3rd Ave, Suite 105 Seattle WA USA 98101</p>

103. Defendant shall not deduct stipulated penalties paid under this Section in calculating their federal income tax.

104. If Defendant fails to pay stipulated penalties according to the terms of this Consent Decree, 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 Affected State from securing any remedy otherwise provided by law for Defendant’s failure to pay any stipulated penalties.

105. Subject to the provisions of Section XIX of this Consent Decree (Effect of Settlement/Reservation of Rights), the stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the United States or an Affected State for Defendant’s violation of this Consent Decree or applicable law. Where a violation of this Consent Decree is also a violation of any applicable statute or regulation, 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 128 and 129.

#### **SECTION XVI: FORCE MAJEURE**

106. “Force Majeure” (for purposes of this Consent Decree) is defined as any event arising from causes beyond the control of Defendant, of any entity controlled by Defendant or Defendant’s Contractors that causes a delay or impediment to performance in complying with any obligation under this Consent Decree despite the Defendant’s best efforts to fulfill the obligation. The requirement that the 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 the Defendant’s financial inability to perform any obligation under this Consent Decree. Force majeure may include Defendant’s inability after demonstrating compliance with the requirements of Paragraph 76 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.

107. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree that Defendant claims was caused by a force majeure event, Defendant shall provide notice orally or by electronic or facsimile transmission to the representatives of U.S. EPA and the Affected State(s) designated to receive notice pursuant to Section XXI (Notices) within 7 Business Days of when Defendant first knew that the event might cause a delay. Within 21 Days thereafter, Defendant shall provide in writing to U.S. EPA and the Affected State(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; 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 Defendant, such event may cause or contribute to an endangerment to public health, welfare or the environment. Defendant 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 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. Defendant shall be deemed to know of any circumstance of which Defendant, any entity controlled by Defendant, or Defendant's contractors knew or should have known.

108. If U.S. EPA, after a reasonable opportunity for review and comment by the Affected State, 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 State, 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 Defendant in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

109. If U.S. EPA, after a reasonable opportunity for review and comment by the Affected State, 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 Defendant in writing of its decision.

110. If Defendant elects to invoke the dispute resolution procedures set forth in Section XVII (Dispute Resolution), it shall do so no later than 15 Days after receipt of U.S. EPA's notice. In any such proceeding, Defendant 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 Defendant complied with the requirements of Paragraphs 106 and 107, above. If Defendant carries this burden, the delay at issue shall be deemed not to be a violation by Defendant of the affected obligation of this Consent Decree identified to U.S. EPA and the Court.

### **SECTION XVII: DISPUTE RESOLUTION**

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

112. Informal Dispute Resolution for Emission Limit Setting Process under Appendix

A. If Defendant invokes Dispute Resolution regarding an EPA established alternative final 30-Day Rolling Average Emission Limit, Defendant shall simultaneously initiate the process set forth in this Paragraph to hire an independent contractor who will be tasked to analyze the Emission Limits established by EPA and proposed by Defendant and to provide, for the benefit of both U.S. EPA and Defendant, the reports, analysis, and services identified in this Paragraph, below, by the specified deadlines. Defendant shall bear all costs associated with the contractor's

work up to \$150,000, and shall provide the contractor access to records, employees, contracts, and facilities which are reasonably necessary to complete the report required by this Paragraph. If costs to perform the work set forth in the Scope of Work (SOW) requirements described in Paragraph 112.b are expected to be higher than \$150,000, Defendant and U.S. EPA will, upon written mutual agreement, limit or modify the nature and/or scope of the work to be performed under Paragraph 112.b to meet the expenditure limitation. For purposes of this Paragraph, “independent” shall mean a qualified professional with at least 5 years of experience relating to the operations of and/or emissions from cement kilns or similar sources and who has not previously been employed or retained by Defendant in any capacity (unless otherwise approved by U.S. EPA).

- a. Defendant shall submit to U.S. EPA for approval, the name and qualifications of a proposed contractor for this engagement at the time it submits its Written Notice of Dispute in accordance with Section XXI (Notices). If U.S. EPA disapproves of the contractor, Defendant is required to propose to U.S. EPA within 15 Days of the disapproval a different contractor, also subject to U.S. EPA's approval. If U.S. EPA disapproves the third contractor, U.S. EPA may choose and identify to Defendant the Contractor to be employed. Defendant shall enter into a contract with the Contractor, containing the Statement of Work requirements in Paragraph 112.b, below (as modified to meet the expenditure limitations), within 7 Days of U.S. EPA's approval or final identification of the Contractor.
- b. As part of the contract, Defendant shall provide to the Contractor a SOW which will include a requirement or direction to:

- i. Analyze the baseline data, if available, as well as the Demonstration Report, proposed Emission Limits, data collected during the demonstration phase and any other relevant data from the Facility;
- ii. Submit to U.S. EPA and Defendant, a report on the appropriate 30-day rolling emission limit, consistent with the methodology set forth in and information collected through Appendix A, as applicable, based upon the injection rates and the operational parameters approved as part of the Optimization Report required by Appendix A, as applicable. The conclusions of this report shall be based on all of the information and data collected during the baseline, Optimization and Demonstration Periods, as applicable, as well as any additional site-specific information available to the Contractor. The report shall include a section on whether the data collected during the Demonstration Period is representative of normal operations of the unit, as well as a recommended final Emission Limit using the protocol and procedures in Appendix A, as applicable;
- iii. Make available to U.S. EPA any and all data evaluated, and reveal all communications with Defendant in the course of work pursuant to the SOW. The contractor shall also be tasked in the SOW to attend up to 40 hours of meetings specifically requested by U.S. EPA, to answer questions concerning any analysis or work undertaken pursuant to the SOW. Defendant may attend any such meeting between U.S. EPA and the contractor. The SOW shall make clear that the contractor is free to discuss

their analysis, findings and the content of their report with U.S. EPA prior to the completion of the report; and

iv. Complete the contractor report within 45 Days from the time of the effective date of the contract.

c. The results of the contractor report will inform the parties in the process of engaging in informal dispute resolution on the proposed and final permit limit.

113. If the United States and Affected State are unable to reach agreement on a final 30-Day Rolling Average Emission Limit within 20 Days after receipt of the contractor report by EPA, Defendant may request formal dispute resolution under Paragraph 115 of this Consent Decree. The contractor report shall be part of the Dispute Resolution record in any formal dispute proceedings under this Consent Decree.

114. Informal Dispute Resolution with Respect to All Other Disputes. 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 Defendant sends the United States and Affected State(s) a written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed 20 Days from the date the dispute arises, unless that period is modified by written agreement. If the Parties cannot resolve a dispute by informal negotiations, then the position advanced by the United States, after consultation with the Affect State(s), shall be considered binding unless, within 10 Days after the conclusion of the informal negotiation period, Defendant invokes formal dispute resolution procedures as set forth below.

115. Formal Dispute Resolution. 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(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 Defendant's position and any supporting documentation relied upon by Defendant.

116. The United States, after consultation with the Affected State(s), shall serve its Statement of Position within 45 Days of receipt of 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 Defendant, unless Defendant files a motion for judicial review of the dispute in accordance with the following Paragraph.

117. Defendant may seek judicial review of the dispute by filing with the Court and serving on the United States and Affected State(s), in accordance with Section XXI of this Consent Decree (Notices), a motion requesting judicial resolution of the dispute. The motion must be filed within 20 Days of receipt of the United States Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of 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.

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

119. Standard of Review. Except as otherwise provided in this Consent Decree, the Court shall decide all disputes pursuant to the applicable principles of law. The disputing parties shall state their respective positions as to the applicable standard of law for resolving the particular dispute in the Parties initial filings with the Court under Paragraphs 117 and 118 of this Consent Decree. Except as otherwise provided in this Consent Decree, in any dispute brought under this Section XVII (Dispute Resolution), Defendant shall bear the burden of demonstrating that its position complies with this Consent Decree.

120. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of Defendant 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 101. If Defendant does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XV (Stipulated Penalties).

### **SECTION XVIII: INFORMATION COLLECTION AND RETENTION**

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

- a. monitor the progress of activities required under this Consent Decree;
- b. verify any data or information submitted to the United States or the Affected State 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 Defendant's compliance with this Consent Decree.

122. Upon request, Defendant shall provide U.S. EPA and the Affected State and their authorized representatives copies of analytical data from Kiln performance testing performed by Defendant. Upon request, U.S. EPA and the Affected State shall provide Defendant copies of analytical data from Kiln performance testing performed by U.S. EPA or the Affected State.

123. Until five years after the termination of this Consent Decree, 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 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, Defendant shall provide copies of any documents, records, or other information required to be maintained under this Paragraph.

124. At the conclusion of the information-retention period provided in the preceding Paragraph, Defendant shall notify the United States and the Affected State at least 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, Defendant shall deliver any such documents, records, or other information to U.S. EPA or Affected State. 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 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 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.

125. 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. As to any information that Defendant seeks to protect as CBI, Defendant shall follow the procedures set forth in 40 C.F.R. Part 2.

126. 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 pursuant to applicable federal or state laws, regulations, or permits, nor does it limit or affect any duty or obligation of Defendant to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

#### **SECTION XIX: EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS**

127. Resolution of Liability. With respect to the emissions of NO<sub>x</sub>, SO<sub>2</sub>, and PM (including PM<sub>10</sub> and PM<sub>2.5</sub>) from the Facilities identified in Paragraph 8.x, entry of this Consent Decree shall resolve all civil liability of Defendant to the United States and the Affected States 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.
- b. Title V of the Clean Air Act, 42 U.S.C. §§ 7661-7661f; any applicable federally-enforceable State, regional, or local regulations that implement, adopt, or incorporate the specific federal regulatory requirements of Title V; and, any applicable State, regional, or local regulations that implement, adopt, or incorporate the specific federal regulatory requirements of Title V, but only to the extent that such claims are based on the Defendant’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.x 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.

128. Notwithstanding the resolution of liability in Paragraph 127, nothing in this Consent Decree precludes the United States and/or the Affected States from seeking from Defendant injunctive relief, penalties, or other appropriate relief for violations by Defendant of the regulatory requirements identified in Paragraph 127 resulting from (1) construction or modification that commenced prior to the Date of Lodging of the Consent Decree, if the resulting violations are not arising from the conduct specifically resolved by Paragraph 127 or do not relate to NO<sub>x</sub>, SO<sub>2</sub> or PM (including PM<sub>10</sub> and PM<sub>2.5</sub>); or (2) any construction, Reconstruction or modification that commences after the Date of Lodging of the Consent Decree.

129. The United States and the Affected States reserve all legal and equitable remedies available to enforce the provisions of this Consent Decree. This Consent Decree shall not be construed to limit the rights of the United States or the Affected States to obtain penalties or injunctive relief under the Act or implementing regulations, or under other federal or State laws, regulations, or permit conditions, except as expressly specified in Paragraph 127. The United States and the Affected States further reserve all legal and equitable remedies to address any imminent and substantial endangerment to the public health or welfare or the environment

arising at, or posed by, one or more of the Defendant's Facilities, whether related to the violations addressed in this Consent Decree or otherwise.

130. In any subsequent administrative or judicial proceeding initiated by the United States or the Affected States for injunctive relief, civil penalties, other appropriate relief relating to the Facilities or Defendant's violations, 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 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 127 of this Decree.

131. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. Defendant is responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits; and the 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 States do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that 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.

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

133. 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.

#### **SECTION XX: COSTS**

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

#### **SECTION XXI: NOTICES**

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

##### **To U.S. EPA:**

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

And

##### **For all submissions referring to the Foreman and Midlothian Facilities:**

David Garcia, Associate Director Air/Toxics and Inspection Coordination Branch  
U.S. EPA Region 6  
1445 Ross Avenue  
Suite 1200, MC 6EN-A  
Dallas, Texas 75202

##### **For all submissions referring to the Louisville and Chanute Facilities:**

Rebecca Weber  
U.S. EPA Region VII  
11201 Renner Blvd.  
Lenexa, KS 66219

##### **For all submissions referring to the Montana City and Leamington Facilities:**

Cynthia Reynolds, 8ENF-AT  
U.S. EPA Region VIII  
1595 Wynkoop St.  
Denver, CO 80202-1129

For all submissions referring to the Inkom, Seattle and Durkee Facilities:

John Keenan  
U.S. EPA Region X  
1200 Sixth Avenue Suite 900  
Seattle, WA 98101

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

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

To State Agency Plaintiffs:

For all submissions referring to the Foreman Facility, to the State of Arkansas:

Arkansas Department of Environmental Quality  
Attn: Mike Porta  
5301 Northshore Drive  
North Little Rock, AR 72118-5317

For all submissions referring to the Inkom Facility, to the Idaho Department of Environmental Quality

Mike Simon  
Idaho Department of Environmental Quality  
1410 N. Hilton  
Boise, ID 83706

For all submissions referring to the Chanute Facility, to the Kansas Department of Health and Environment:

Timothy E. Keck, Deputy Chief Counsel  
Kansas Department of Health and Environment  
1000 SW Jackson, Suite 560  
Topeka, KS 66612-1371

For all submissions referring to the Montana City Facility, to the State of Montana:

John L. Arrigo, Administrator  
Enforcement Division  
Department of Environmental Quality

1520 East Sixth Avenue  
P.O. Box 200901  
Helena, MT 59620-0901

For all submissions referring to the Louisville Facility, to the Nebraska Department of Environmental Quality

Shelley Schneider  
Nebraska Department of Environmental Quality  
1200 N Street, Suite 400  
Lincoln, NE 68509-8922

For all submissions referring to the Durkee Facility, to the State of Oregon:

Linda Hayes-Gorman, Eastern Region Administrator  
Oregon Department of Environmental Quality  
475 NE Bellevue Dr. #110  
Bend, OR 97702

For all submissions referring to the Seattle Facility, to the Puget Sound Clean Air Agency:

Laurie Halvorson, Director - Compliance and Legal  
Puget Sound Clean Air Agency  
1904 Third Avenue - Suite 105  
Seattle, WA 98101

For all submissions referring to the Leamington Facility, to the State of Utah:

Utah Division of Air Quality  
Attn: Rusty Ruby  
Multi Agency State Office Building  
195 North 1950 West, Fourth Floor  
Salt Lake City, Utah 84116

For all submissions referring to the Seattle Facility, the Washington State Department of Ecology:

Stuart Clark  
Air Quality Manager  
Washington State Department of Ecology  
PO Box 47600  
Olympia, WA 98504-7600

To Ash Grove Cement Company:

Curtis Lesslie  
Vice President Environmental Affairs  
Ash Grove Cement Company  
11011 Cody St.  
Overland Park, KS 66210

Steve Ryan  
Vice President & General Counsel  
Ash Grove Cement Company  
11011 Cody St.  
Overland Park, KS 66210

Tom Wood  
Outside Counsel to Ash Grove Cement Company  
Stoel Rives LLP  
900 SW Fifth Ave.; Suite 2600  
Portland, OR 97204

136. Any Party may, by written notice to the other Parties, change its designated notice recipient or notice address provided above. In addition, any Party may submit any written notification, submission, or communication under this Decree by electronic means.

137. 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.

#### **SECTION XXII: EFFECTIVE DATE**

138. 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.

#### **SECTION XXIII: RETENTION OF JURISDICTION**

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

## **SECTION XXIV: MODIFICATION**

140. The terms of this Consent Decree, including the Appendices, may be modified only by a subsequent written agreement signed by any Affected State(s), the United States, and Defendant. With the exception of submittals under Appendix A and Appendix B that are approved or conditionally approved pursuant to Section XIII (Review and Approval of Submittals), and which are incorporated by reference in this Consent Decree upon such approval or conditional approval, where the modification constitutes a material change to this Decree it shall be effective only upon approval by the Court.

141. Any disputes concerning modification of this Decree shall be resolved pursuant to Section XVII of this Decree (Dispute Resolution), provided, however, that, instead of the burden of proof provided by Paragraph 119, 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).

## **SECTION XXV: TERMINATION**

142. Termination as to an Individual Facility. After Defendant has satisfied the requirements of Sections V (NO<sub>x</sub> Control Technology, Emission Limits, and Monitoring Requirements), VI (SO<sub>2</sub> Control Technology, Emission Limits, and Monitoring Requirements), Section VII (PM Control Technology, Emission Limits and Monitoring Requirements), and Section XII (Permits) of this Decree and has Continuously Operated any Control Technology as required by this Consent Decree for that Kiln for a period of two years at an individual Facility, Defendant may serve upon the United States and the Affected State a Request for Termination of the Consent Decree as it relates to that Facility, stating that Defendant has satisfied those requirements, together with all necessary supporting documentation. If the United States and the

Affected State agree that the Decree as it relates to an individual Facility may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating those provisions of the Decree. Notwithstanding the foregoing, operation of the Replacement Montana City Kiln for two years is not required prior to termination so long as the SO<sub>2</sub> and NO<sub>x</sub> Emission Limits required by Paragraphs 29 and 48, or more stringent limits, are included in the preconstruction permit required under those Paragraphs.

143. Complete Termination. After the Defendant has satisfied the requirements of Sections V (NO<sub>x</sub> Control Technology, Emission Limits, and Monitoring Requirements), VI (SO<sub>2</sub> Control Technology, Emission Limits, and Monitoring Requirements), Section VII (PM Control Technology, Emission Limits, and Monitoring Requirements), Section VIII (Other Injunctive Relief) and Section XII (Permits) of this Decree and has maintained Continuous Operation of all Control Technology as required by this Consent Decree for a period of two years at all Facilities, has complied with all other requirements of this Consent Decree, and has paid the civil penalty and any accrued stipulated penalties as required by this Consent Decree, Defendant may serve upon the United States and the Affected States a Request for Termination, stating that Defendant has satisfied those requirements, together with all necessary supporting documentation. If the United States and the Affected State(s) agree that the Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Decree.

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

## **SECTION XXVI: PUBLIC PARTICIPATION**

145. This Consent Decree shall be lodged with the Court for a period of not less than 30 Days for public notice and comment in accordance with 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate. 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 Defendant in writing that it no longer supports entry of the Consent Decree.

## **SECTION XXVII: SIGNATORIES/SERVICE**

146. The Assistant Attorney General or Acting Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice and each undersigned representative of Defendant and the State Agency 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.

147. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis. Defendant agrees to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons. Defendant shall identify, on the attached signature page, the name, address and telephone number of an agent who is authorized to accept service of process by mail on behalf of Defendant with respect to all matters arising under or relating to this Consent Decree. All Parties

agree that 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.

### **SECTION XXVIII: INTEGRATION**

148. This Consent Decree constitutes the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Decree and supersedes all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. No other document, nor any representation, inducement, agreement, understanding or promise constitutes any part of this Decree or the settlement it represents, nor shall it be used in construing the terms of this Decree.

### **SECTION XXIX: FINAL JUDGMENT**

149. 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 and State Agency Plaintiffs and Defendant. 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.

### **SECTION XXX: APPENDICES**

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

“Appendix A” contains the Control Technology Demonstration/NO<sub>x</sub> Emission Reduction Report Requirements that apply to each Kiln under this Decree subject to those requirements.

“Appendix B” contains the PM Continuous Parametric Monitoring System Requirements that apply to each Kiln under this Decree subject to those requirements.

“Appendix C” contains the Environmental Mitigation Project Requirements.

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  
District of Kansas

**Signature Page to the Consent Decree in *United States et al v. Ash Grove Cement Company***

FOR PLAINTIFF UNITED STATES OF AMERICA:



ROBERT G. DREHER  
Acting Assistant Attorney General  
Environment and Natural Resources  
Division  
United States Department of Justice

Date: 6/17/13



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

Date: 5/28/13

**Signature Page to the Consent Decree in *United States et al v. Ash Grove Cement Company***

FOR PLAINTIFF UNITED STATES OF AMERICA:

BARRY R. GRISSOM  
United States Attorney, District of Kansas

[REDACTED]  
EMILY METZGER #10788  
Assistant United States Attorney  
1200 Epic Center  
301 N. Main  
Wichita, Kansas 67202  
(316) 269-6481  
Emily.metzger@usdoj.gov

Date: May 6, 2013

**Signature Page to the Consent Decree in *United States et al v. Ash Grove Cement Company***

**FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:**

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

Date: 4/18/13

  
**PHILLIP A. BROOKS**  
Director, Air Enforcement Division  
Office of Enforcement and Compliance Assurance  
United States Environmental Protection Agency

Date: 4/15/2013

**Signature Page to the Consent Decree in *United States et al v. Ash Grove Cement Company***

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

[Redacted]  
JOHN BLEVINS

Director

Compliance Assurance and Enforcement Division  
U.S. Environmental Protection Agency, Region 6  
1445 Ross Avenue  
Dallas, Texas 75202

Date: 2.27.13

**Signature Page to the Consent Decree in *United States et al v. Ash Grove Cement Company***

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY  
REGION 7:

[REDACTED]  
KARL BROOKS  
Regional Administrator  
U.S. Environmental Protection Agency  
Region 7  
11201 Renner Blvd.  
Lenexa, Kansas 66219

Date: 4/18/13

[REDACTED]  
DAVID COZAD  
Regional Counsel  
U.S. Environmental Protection Agency  
Region 7  
11201 Renner Blvd.  
Lenexa, Kansas 66219

Date: 4/18/13

**Signature Page to the Consent Decree in *United States et al v. Ash Grove Cement Company***

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY  
REGION 8:

Date: MAR 22 2013

ANDREW M. GAYDOSH  
Assistant Regional Administrator  
Office of Enforcement, Compliance and  
Environmental Justice  
U.S. Environmental Protection Agency  
1595 Wynkoop Street  
Denver, CO 80202

**Signature Page to the Consent Decree in *United States et al v. Ash Grove Cement Company***

FOR THE STATE OF ARKANSAS on behalf of the  
Arkansas Department of Environmental Quality:

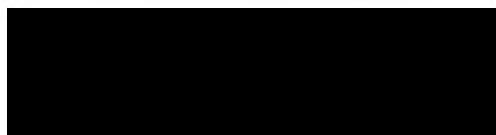
[Redacted]  
KENDRA AKIN JONES  
Assistant Attorney General  
On Behalf of the Arkansas Department  
Of Environmental Quality  
323 Center Street, Ste. 400  
Little Rock, AR 72201  
(501) 682-7383

Date:

4/16/13

**Signature Page to the Consent Decree in *United States et al v. Ash Grove Cement Company***

**FOR THE IDAHO DEPARTMENT OF ENVIRONMENTAL  
QUALITY:**



Date:

4/16/13

*fr* (CURT FRANSEN  
Director  
Idaho Department of Environmental Quality  
1410 N. Hilton  
Boise, ID 83706

Signature Page to the Consent Decree in *United States et al v. Ash Grove Company*

FORE THE STATE OF KANSAS:

[REDACTED]  
ROBERT MOSER [REDACTED]

Date: 4/22/13

Secretary  
Kansas Department of Health and Environment  
1000 SW Jackson, Suite 580  
Topeka, Kansas 66612

[REDACTED]  
TIMOTHY E. KECK #14993 [REDACTED]

Date: 4/22/13

Deputy Chief Counsel  
Kansas Department of Health and Environment  
1000 SW Jackson, Suite 560  
Topeka, Kansas 66612

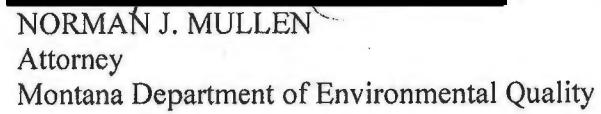
**Signature Page to the Consent Decree in *United States et al v. Ash Grove Cement Company***

FOR THE STATE OF MONTANA  
DEPARTMENT OF ENVIRONMENTAL QUALITY



TRACY STONE-MANNING  
Director  
Montana Department of Environmental Quality

Date: 4/1/13



NORMAN J. MULLEN  
Attorney  
Montana Department of Environmental Quality

Date: 4-2-13

**Signature Page to the Consent Decree in *United States et al v. Ash Grove Cement Company***

FOR THE STATE OF NEBRASKA, on behalf of the  
Nebraska Department of Environmental Quality:

[REDACTED]

KATHERINE J. SPOHN  
Deputy Attorney General  
Office of the Nebraska Attorney General  
2115 State Capitol  
Lincoln, NE 68509-8920  
Nebraska Bar Number 22979  
(402) 471-2682  
Email: [katie.spohn@nebraska.gov](mailto:katie.spohn@nebraska.gov)

Date: February 5, 2013

**Signature Page to the Consent Decree in *United States et al v. Ash Grove Cement Company***

FOR THE STATE OF OREGON on behalf of the  
Oregon Department of Environmental Quality:

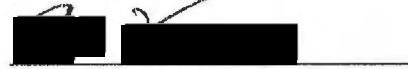


Date: 2-13-13

STEPHANIE M. PARENT OSB #925908  
Senior Assistant Attorney General  
Oregon Department of Justice  
Trial Division/Special Litigation Unit  
1515 SW Fifth Street, Suite 410  
Portland, OR 97201  
Phone: (971) 673-1880  
Fax: (971) 673-5000  
[Stephanie.M.Parent@doj.state.or.us](mailto:Stephanie.M.Parent@doj.state.or.us)

**Signature Page to the Consent Decree in *United States et al v. Ash Grove Cement Company***

FOR THE PUGET SOUND CLEAN AIR AGENCY:



CRAIG KENWORTHY  
Executive Director  
Puget Sound Clean Air Agency  
1904 3rd Avenue, Suite 105  
Seattle WA 98101

Date: 2/7/2013

**Signature Page to the Consent Decree in *United States et al v. Ash Grove Cement Company***

FOR THE STATE OF UTAH on behalf of the  
Utah Department of Environmental Quality:



BRYCE C. BIRD,  
Director  
Utah Division of Air Quality  
Multi Agency State Office Building  
195 North 1950 West, Fourth Floor  
Salt Lake City, Utah 84116

Date: 07/11/2013

**Signature Page to the Consent Decree in *United States et al v. Ash Grove Cement Company***

**FOR THE WASHINGTON STATE  
DEPARTMENT OF ECOLOGY:**



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

Date: 4/2/13

A black rectangular redaction box covering several lines of text.

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

Date: 4/2/13

Signature Page to the Consent Decree in *United States et al v. Ash Grove Cement Company*

FOR DEFENDANT ASH GROVE  
CEMENT COMPANY / [REDACTED]

MICHAEL KRZUK

Senior Vice-President—Manufacturing  
11011 Cody St.  
Overland Park, KS 66210

Date:

April 12, 2013

The following is the name and address of Defendant Ash Grove Cement Company's agent for service pursuant to Paragraph 147.

Thomas R. Wood  
Stoel Rives LLP  
900 SW Fifth Ave.  
Suite 2600  
Portland OR 97204-1268  
(503) 204-9396

**Appendix A to Consent Decree**  
**Control Technology Demonstration Requirements/NO<sub>x</sub> Emission Reduction Requirements**

**I. Scope and Applicability**

Ash Grove Cement Company (Ash Grove) shall comply with the requirements contained in this Appendix A in proposing and establishing 30-Day Rolling Average Emission Limits for Nitrogen Oxide (“NO<sub>x</sub>”) for the Montana City Kiln, Seattle Kiln, and the Louisville ACL Kiln (“Affected Kilns”). Terms in this Appendix A have the same meaning as in the Consent Decree unless otherwise specified.

The Affected Kilns include kilns of varying type, age, design and operating capacities. Raw materials employed in the Affected Kilns vary substantially. Fuels used in the Affected Kilns vary by location and may include fuel oil, natural gas, coal, petroleum coke, tire-derived fuel, hazardous waste derived fuel, used oils and other materials reused as fuel. Affected Kilns will be limited to those fuels and the amounts allowed by their various operating permits.

Supporting data required to be submitted under this protocol may contain information relating to operation of any Affected Kiln and production data that Ash Grove considers to be proprietary. In such a situation, Ash Grove may submit the information to EPA as confidential business information (CBI).

**II. Montana City Kiln SNCR Control Technology Demonstration Requirements**

**(1) Summary**

For the Montana City Kiln, Ash Grove shall take the following steps to establish a 30-Day Rolling Average Emission Limit for NO<sub>x</sub> at that Kiln:

- a. **Design Report:** Ash Grove shall prepare and submit to EPA for approval a Design Report for SNCR Control Technology for NO<sub>x</sub> at the Montana City Kiln, based on similar SNCR Control Technology installations and the control requirements of this Consent Decree;
- b. **Baseline Data Collection:** Prior to initiating operation of SNCR Control Technology at the Montana City Kiln, Ash Grove shall either: (i) collect new baseline emissions and operational data for a 180-Day period; or (ii) obtain EPA’s approval of baseline emissions and operational data from a period prior to the date of any baseline data collection period. Such baseline emissions and operational data shall be representative of the full range of normal kiln operations, including regular operating changes in raw mix chemistry due to different clinker manufacture and changes in production levels.

- c. **Startup and Optimization Period:** Following completion of installation of SNCR Control Technology at the Montana City Kiln, Ash Grove shall undertake a startup and optimization program for the SNCR Control Technology;
- d. **Demonstration Program:** Upon completion of the startup and optimization program specified above, Ash Grove shall operate SNCR Control Technology at the Montana City Kiln in an optimized manner for a period of 300 Operating Days for the purpose of establishing a 30-Day Rolling Average Emission Limit for NO<sub>x</sub>;
- e. **Demonstration Report:** Ash Grove shall prepare and submit to EPA for approval, a Final Report following completion of the Demonstration Program Period for SNCR Control Technology used to establish a 30-Day Rolling Average Emission Limit for NO<sub>x</sub> at the Montana City Kiln.

## **(2) Montana City Kiln SNCR Design Report**

- a. No later than 3/14/2014 Ash Grove shall submit to EPA for approval a Design Report for SNCR Control Technology to be installed at the Montana City Kiln. The Design Report will contain the information contained in any permit application or de minimis notification which may be required under state or federal law. EPA shall review and comment on the Design Report within 45 Days of receipt. Ash Grove shall respond to any comments received within 30 Days of receipt. The Design Report shall comply with the following minimum requirements and shall be subject to the review requirements of Section XIII (Review and Approval) of the Consent Decree.
- b. Selective Non-Catalytic Reduction ("SNCR"): Ash Grove shall design the SNCR system at the Montana City Kiln to deliver the proposed reagent to the exhaust gases of the kiln system at a rate and location to minimize NO<sub>x</sub> emissions to the greatest extent practicable. At a minimum, the system must be capable of injecting ammonia at a rate of 1.2 mols of reagent to 1.0 mols of NO<sub>x</sub> (1.2:1 molar ratio). Ash Grove shall specify in the Design Report the reagent(s) selected, the locations selected for reagent injection, and other design parameters based on maximum emission reduction effectiveness, good engineering judgment, vendor standards, available data, kiln operability, and regulatory restrictions on reagent storage and use.

## **(3) Montana City Kiln Baseline Data Collection**

- a. Prior to commencement of Continuous Operation of SNCR Control Technology, Ash Grove shall either: (a) collect new baseline emissions and operational data for a 180-Day period; or (b) obtain EPA approval pursuant to Section XIII (Review and Approval) of the Consent Decree of existing baseline emissions and operational data collected from a period of time prior to the initiation of the baseline collection period. Such baseline emissions and operational data shall include the data required by Paragraph 3.b of Section II of this Appendix A for periods of time representing the full range of normal kiln operations including changes in raw mix chemistry due to differing clinker manufacture, and changes in production levels. Ash Grove shall

select the data collection period to ensure the baseline data collection period will be representative of the normal Kiln Operation.

- b. Within 45 Days following the completion of the baseline data collection period or EPA's approval of the use of existing data, Ash Grove shall submit to EPA the baseline data collected during the baseline data collection period. Unless otherwise agreed to by EPA, the baseline data will include the following information either derived from available direct monitoring or as estimated from monitored or measured data:
  - i. Kiln flue gas temperature at the inlet to the fabric filter or electrostatic precipitator as applicable or at the Kiln stack (daily average);
  - ii. Kiln production rate in tons of clinker (daily total);
  - iii. Raw material feed rate in tons (daily total);
  - iv. Type and percentage of each raw material used and the total feed rate (daily);
  - v. NO<sub>x</sub> concentrations and mass rates for each Kiln (daily average for concentrations and daily totals for mass rates) as measured at the Kiln stack gas analyzer location;
  - vi. Flue gas volumetric flow rate (daily average in acfm or dscfm, as appropriate);
  - vii. Sulfate in feed (calculated to a daily average percentage);
  - viii. Feed burnability (C3S) (at least once daily);
  - ix. Temperatures near the burning zone;
  - x. Back end kiln temperature;
  - xi. Back end kiln oxygen;
  - xii. Kiln fuel feed rate and type of fuel by weight or total heat input (daily average);
  - xiii. Fuel distribution, if fuel is injected at more than one location, how much is injected at each location (daily average);
  - xiv. Primary (and secondary and tertiary, where available) air rate into the Kiln, preheater and/or precalciner (as applicable) or blower/fan settings;

- xv. Documentation of any Startup, Shut Down, or Malfunction events; and
- xvi. An explanation of any gaps in the data or missing data.

Ash Grove shall submit the baseline data to EPA in an electronic format and shall explain the reasons for any data not collected for each of the parameters listed in this Paragraph of this Appendix A. Ash Grove shall submit all data in a format consistent with and able to be manipulated by Microsoft Excel.

#### **(4) Montana City Kiln Startup and Optimization Period**

- a. Ash Grove shall install and begin operating the SNCR Control Technology according to the requirements of Section V (NO<sub>x</sub> Control Technology, Emission Limits and Monitoring Requirements) of the Consent Decree. Ash Grove shall Commence Operation of SNCR Control Technology in accordance with the final Design Report by adding reagent to the SNCR system.
- b. By 9/10/2014, Ash Grove shall commence Continuous Operation of the SNCR Control Technology. Any shakedown of the SNCR must be completed by 9/10/2014. Ash Grove will commence optimization of the SNCR Control Technology within 90 Days of the commencement of Continuous Operation of the SNCR.
- c. Not later than 90 Days prior to the start of the optimization of the SNCR Control Technology, Ash Grove will submit to U.S. EPA a protocol for optimizing each SNCR Control Technology (“Optimization Protocol”) to minimize emissions of NO<sub>x</sub> to the greatest extent practicable. U.S.EPA shall review and comment on the Protocol within 45 Days of receipt and Ash Grove will respond to any comments with 30 Days of their receipt. The Optimization Protocol shall describe procedures that shall be used to evaluate the impact of different SNCR Control Technology operating parameters on the rate of emission reduction achieved by each applicable SNCR Control Technology and shall contain:
  - i. The steps taken to commence Continuous Operation of the SNCR Control Technology;
  - ii. The initial reagent injection rate (as a molar ratio of the average pollutant concentration calculated during the baseline period) for each SNCR Control Technology;
  - iii. A description of all sampling procedures that will be undertaken during the optimization of each SNCR Control Technology;
  - iv. Detailed description of the plan to increase the reagent injection rate for each Control Technology. At a minimum, Ash Grove shall test SNCR at three molar ratios of 0.75, 1.0, and 1.2.

- v. The factors that will determine the maximum reagent injection rates and pollutant emission rates for the SNCR Control Technology (including maintenance of Kiln productivity and product quality);
  - vi. Explanation of how any observed effects on Kiln emissions, Kiln Operation or product quality will be evaluated;
  - vii. A proposal for the evaluation of the cost effectiveness of the incremental addition of reagent(s) and any incremental reduction in emissions of an air contaminant; and
  - viii. A detailed protocol for evaluating SNCR Control Technology operation and reagent injection rates with respect to alternate fuel scenarios to the extent that alternate fuels are anticipated.
- d. The optimization period will be conducted in accordance with the approved Optimization Protocol and shall last no longer than 150 Operating Days.
  - e. Within 30 Days following the completion of the optimization period for the SNCR Control Technology, Ash Grove shall provide to EPA an Optimization Report demonstrating conformance with the Optimization Protocol for the SNCR Control Technology and establishing the operating parameters for the Control Technology determined under the Optimization Protocol. Ash Grove shall include in the report: the proposed optimized injection rate to be used continuously during the Demonstration Phase, a discussion of any problems encountered with the operation of the SNCR Control Technology, and a detailed discussion of the results of the Optimization on emissions from the kiln system. The provisions of Section XIII (Review and Approval of Submittals) shall apply to EPA's review of the Optimization Report, except that EPA shall review and comment on the Optimization Report within 45 Days of receipt of the Optimization Report and Ash Grove shall respond to any comments received within 30 Days of their receipt of EPA's comments. Ash Grove's submittal of and EPA's review of the Optimization Report shall not toll Ash Grove's obligation to fulfill other requirements of this Appendix.
  - f. As part of the optimization, the SNCR Control Technology will be presumed to be optimized at a molar ratio of 1.2 if it reduces NOx significantly, and does not impair product quality or production levels, impair kiln system reliability or impair compliance with then applicable emission requirements. For the Affected Kiln to be deemed to be optimized at a molar ratio of less than 1.2, the Optimization Report must demonstrate that, during periods of normal operation, a higher rate of emission reduction or operation cannot be sustained without creating a meaningful risk of impairing product quality or production levels, impairing kiln system reliability or impairing compliance with then applicable emission requirements or if the SNCR Control Technology cannot sustain operation at design values.

g. During the Optimization Period, Ash Grove, to the extent practicable, shall operate the SNCR Control Technology in a manner consistent with good air pollution control practice for minimizing emissions. Ash Grove will adjust its optimization of a SNCR Control Technology as may be necessary to avoid, mitigate or abate an identifiable non-compliance with an emission limitation or standard for pollutants other than NO<sub>x</sub>. In the event Ash Grove determines, prior to the expiration of 150 operating days, that its ability to optimize the SNCR Control Technology will be affected by potential impairments to product quality or production levels, kiln system reliability or increased emissions of other pollutants, then Ash Grove shall promptly advise EPA of this determination, and include these considerations as part of its recommendation in its Optimization Report. In the event that Ash Grove determines, prior to the expiration of 150 Operating Days that the SNCR Control Technology has been optimized, Ash Grove shall promptly advise EPA of this determination.

#### **(5) Montana City Kiln SNCR Control Technology Demonstration Period**

- a. The Demonstration Period shall commence within 7 Days after Ash Grove's receipt of the final approval by EPA of the Optimization Report. During the Demonstration Period, Ash Grove shall operate the SNCR Control Technology for a period of 300 Operating Days consistent with the operating parameters determined during the Optimization Period for the SNCR Control Technology and identified in the approved Optimization Report.
- b. If operation of an Affected Kiln is disrupted by excessive startups and shutdowns during the Demonstration Period, Ash Grove may request or EPA may decide to extend the Demonstration Period. In granting any such request, the amount the time that the Demonstration Period will be extended is subject to the Section XVII (Dispute Resolution) provisions of this Consent Decree.
- c. If evidence arises during the Demonstration Period that product quality, production levels, kiln system reliability, or compliance with an emission limitation or standard is impaired by reason of longer term operation of an SNCR Control Technology in a manner consistent with the parameters identified in the Optimization Report, then Ash Grove may, upon notice to, and approval by, EPA, temporarily modify the manner of operation of the Facility process or the SNCR Control Technology to mitigate the effects and request that EPA suspend or extend the Demonstration Period for further technical evaluation of the effects of a process optimization or SNCR Control Technology or permanently modify the manner of operation of the Control Technology to mitigate the effects. EPA's decision in response to any such Ash Grove request is subject to the Section XVII (Dispute Resolution) provisions of this Consent Decree.
- d. During the Demonstration Period, Ash Grove shall collect the same data required during the baseline period and identified in this Appendix A. The Demonstration Report shall include the data collected as required in this Paragraph in an electronic

form in an Excel spreadsheet or a format compatible and able to be manipulated by Excel.

- e. At least every 3 months during the Demonstration Period (unless that period lasts less than 3 months in which case this requirement does not apply), Ash Grove shall submit a periodic report to EPA. Each periodic report shall include the data collected during the Demonstration Period to that point, and shall include all of the information in Paragraph 3.b of Section II of this Appendix A. In addition, the periodic report shall include all 30-Day Rolling Average Emission Rates calculated from the beginning of the Demonstration Period until the preparation of the periodic report. The report data shall be submitted electronically in an Excel spreadsheet or a format compatible and able to be manipulated by Excel.
- f. Within 60 Days following completion of the Demonstration Period for the SNCR Control Technology, Ash Grove shall submit a Demonstration Report to EPA, based upon and including all of the data collected during the Demonstration Period that identifies a proposed 30-Day Rolling Average Emission Limit for NO<sub>x</sub>. The proposed 30-Day Rolling Average Emission Limit for NO<sub>x</sub> shall be based upon an analysis of CEMS data and clinker production data collected during the Demonstration Period, while the process and SNCR Control Technology parameters were optimized in determining the proposed final NO<sub>x</sub> Emission Limit achievable for the Montana City Kiln. Total pounds of NO<sub>x</sub> emitted during an individual Operating Day will be calculated from collected CEMS data for that Day. Hours or Days when there is no Kiln Operation may be excluded from the analyses. However, Ash Grove shall provide an explanation in the Demonstration Report for any data excluded from the analyses. In any event, Ash Grove shall include all data required to be collected during the Demonstration Period in the Final Demonstration Report.
- g. Ash Grove shall propose a 30-Day Rolling Average Emission Limit for NO<sub>x</sub> in the Demonstration Report as provided in the preceding Paragraph and in accordance with the definition of that term in the Consent Decree. The final 30-Day Rolling Average Emission Limits shall be calculated in accordance with the following formula:

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

X = 30-Day Rolling Average Emission Limit (lb/Ton of clinker)

$\mu$  = arithmetic mean of all of the 30-Day rolling averages

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

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

- h. In no event shall the 30-Day Rolling Average Emission Limit for NO<sub>x</sub> proposed by Defendant in the Demonstration Report at the Montana City Kiln be less stringent than 8.0 lb/ton of clinker.
    - i. Notwithstanding Section XIII of this Consent Decree (Review and Approval of Submittals), EPA shall either approve the proposed 30-Day Rolling Average Emission Limit or establish an alternative final 30-Day Rolling Average Emission Limit. If EPA approves Ash Grove's proposed 30-day Rolling Average Emission limit, Ash Grove shall demonstrate compliance and maintain compliance with EPA's final 30-day Rolling Average Emission Limit within 30 Days of receipt of EPA's notice. If EPA establishes an alternative final 30-Day Rolling Average Emission Limit that differs from Ash Grove's proposed 30-Day Rolling Average Emission Limit, Ash Grove shall demonstrate compliance and maintain compliance with EPA's final 30-Day Rolling Average Emission Limit within 60 Days of receipt of EPA's notice. If Ash Grove invokes Dispute Resolution, it shall follow the procedures set forth in Paragraph 112 (Informal Dispute Resolution for Emission Limit Setting Process under Appendix A) to hire an independent contractor to review and make a non-binding recommendation regarding the appropriate final 30-Day Rolling Average Emission Limit. During the period of Dispute Resolution, Ash Grove shall demonstrate compliance and maintain compliance with EPA's final 30-Day Rolling Average Emission Limit.

### **III. NO<sub>x</sub> Emission Reduction Study and Demonstration Phase Requirements for Seattle Kiln and Louisville ACL Kiln**

This Section III of the Appendix A applies to the Seattle Kiln and the Louisville ACL Kiln, and sets forth the requirements for reducing NO<sub>x</sub> emissions through optimized operation of those Kilns. The NO<sub>x</sub> Emission Reduction Study and Demonstration Phase Requirements for these Kilns shall consist of three phases:

- Baseline Data Collection
- Process Optimization
- Demonstration

These phases and their associated requirements are described more fully below.

#### **(1) Baseline Data Collection**

- a. Beginning no later than 120 Operating Days after the Effective Date of the Consent Decree, for the Seattle Kiln and Louisville ACL Kiln Ash Grove shall: (a) commence collection of new baseline emissions and operational data from each Kiln for a 180-Operating Day period; or (b) obtain EPA approval pursuant to Section XIII (Review and Approval of Submittals) of the Consent Decree to use existing baseline emissions and operational data from one or both Kilns collected from a period of time prior to the Effective Date of the Consent Decree. Such baseline emissions and operational

data shall include the data required in Paragraph 3.b of Section II of this Appendix A, relating to the Montana City Kiln. The baseline period shall represent the full range of normal kiln operations including changes in raw mix chemistry due to differing clinker manufacture, and changes in production levels. Ash Grove shall select the data collection period to ensure the baseline data collection period will be representative of the normal Kiln Operation. Within 45 Days following the completion of the baseline data collection period or EPA's approval of the use of existing data, Ash Grove shall submit to EPA the baseline data collected during the baseline data collection period.

**(2) Seattle and Louisville ACL Kiln Emission Reduction Study and Process Optimization Period**

- a. By no later than the date by which the Baseline Data Report must be submitted, Ash Grove shall submit to EPA pursuant to Section XXI of the Consent Decree (Notices) a protocol for optimization of operation of the Louisville ACL Kiln and the Seattle Kiln ("Process Optimization Protocol" or "Protocol"). Each Protocol will include optimization of key operating parameters resulting in the minimization of emissions of NO<sub>x</sub> to the greatest extent practicable without incurring unreasonable cost and without causing an exceedance of any other applicable emission limit and without materially impairing production quality or quantity. At a minimum, the Protocol must address:
  - i. Adjustments to the combustion zone temperature to minimize NO<sub>x</sub> formation;
  - ii. Optimization of air flow and oxygen levels;
  - iii. Improvement of fuel efficiency;
  - iv. Adjustments to the existing Kiln including, but not limited to, introduction of air at different locations in the Kiln to create reducing zones for NO<sub>x</sub> reduction and adjustments to the primary air;
  - v. Adjustment of the balance between fuel supplied to each burner at the Kiln and/or calciner to improve overall combustion while maintaining product quality;
  - vi. Adjustments to combustion to improve overall NO<sub>x</sub> levels by:
    1. Adjusting fuel fineness to improve emission rates;
    2. Adjusting the proportions of primary, secondary and tertiary air, where applicable, supplied to the kiln system while maintaining product quality; and
    3. Adjustments to the raw mix chemical and physical properties using onsite raw materials to improve kiln stability and maintain product

quality, including but not limited to, fineness of the raw mix. As part of this optimization measure, Ash Grove shall take additional measurements using existing monitoring equipment at relevant process locations to evaluate the impact of raw mix refinements.

EPA shall review each Optimization Protocol pursuant to Section XIII of the Consent Decree (Review and Approval of Submittals).

- b. As part of the Protocol submitted pursuant to Section III of this Appendix A, Ash Grove shall propose a schedule for optimizing each of the measures identified in the Protocol. The schedule shall not be shorter than 90 Operating Days, nor last longer than 120 Operating Days from the beginning of the Process Optimization Phase. Within 30 Days following approval of the Optimization Protocol and the schedules therein, Ash Grove will commence the optimization of the Kiln according to the terms of the Protocol and EPA's approval of such. Subject to Section IX (Temporary Cessation of Kiln Operation), all Process Optimizations shall be completed within 180 Days of the EPA approval of the Optimization Protocol.
- c. Within 30 Days following the optimization period in each approved Protocol at each Kiln, Ash Grove shall provide to EPA a Process Optimization Report demonstrating conformance with the Protocol required under this section and establishing the operating parameters determined under the Protocol. Each Process Optimization Report shall:
  - i. identify all potential process and/or operational changes that can be implemented to reduce emissions of NO<sub>x</sub> at the Louisville ACL Kiln and Seattle Kiln;
  - ii. estimate the amount of NO<sub>x</sub> emission reductions that can be obtained through implementation of each of the individual process and/or operational changes;
  - iii. assess process and/or operational changes appropriate for implementation;
  - iv. assess which potential process and/or operational changes are inappropriate for implementation;
  - v. determine the appropriate period of time for implementing those process and/or operational changes that are appropriate for implementation;
  - vi. estimate the amount of NO<sub>x</sub> emissions that can be reduced through all of the individual process and/or operational changes that are appropriate for implementation;
  - vii. discuss any problems encountered with the operation of the Kilns during the Optimization and the impact of the Optimization on emissions;

- viii. recommend the process and/or operational changes to be implemented as measures to reduce NO<sub>x</sub> emissions from the Kiln and include a detailed analysis of why such changes are proposed and, if applicable, why any changes are not proposed to be implemented; and
  - ix. include a proposed implementation schedule for the proposed measures.
- j. The provisions of Section XIII (Review and Approval of Submittals) shall apply to EPA's review of the Optimization Report, except that EPA shall review and comment on the Optimization Report within 45 Days of receipt of the Optimization Report and Ash Grove shall respond to any comments received within 30 Days of their receipt of EPA's and comments. Ash Grove's submittal of and EPA's review of the Optimization Report shall not toll Ash Grove's obligation to fulfill other requirements of this Appendix.

### **(3) Seattle Kiln and Louisville ACL Kiln Demonstration Period**

- a. Upon completion of the optimization requirements of each Optimization Protocol approved by EPA pursuant to Section III of this Appendix A for the Louisville ACL Kiln and the Seattle Kiln, Ash Grove shall commence a Demonstration Period for each such Kiln. Each Demonstration Period shall commence within 7 Days after Ash Grove's receipt of the final approval by EPA of the Optimization Report for the respective Kiln. During the Demonstration Period, Ash Grove shall operate each Kiln for a period of 180 Operating Days consistent with the operating parameters in the approved Optimization Protocol and identified in the approved Optimization Report for the respective Kiln.
- b. If operation of the Seattle Kiln or Louisville ACL Kiln is disrupted by excessive startups and shutdowns during the Demonstration Period for that Kiln, Ash Grove may request or EPA may decide to extend the Demonstration Period for that Kiln. EPA shall grant or deny any request and shall state the amount the time that the Demonstration Period will be extended. EPA's decision is subject to the Section XVII (Dispute Resolution) provisions of this Consent Decree. Ash Grove may not suspend Demonstration Period data collection prior to the completion of 180 Operating Days until and unless EPA has granted the request.
- c. Within 90 Days following the start of each Demonstration Period for each Kiln subject to Section III of this Appendix A, Ash Grove shall submit a report to EPA. Each report shall include the 30-Day Rolling Average Emission Rate calculated from the beginning of the Demonstration Period until the preparation of the periodic report. The report data shall be submitted electronically in an Excel spreadsheet or a format compatible and able to be manipulated by Excel.
- d. Within 60 Days following completion of the Demonstration Period for each Kiln subject to Section III of this Appendix A, Ash Grove shall submit a Demonstration

Report to EPA, based upon and including all of the data collected during the Demonstration Period that identifies proposed 30-Day Rolling Average Emission Limits for NO<sub>x</sub> at the Louisville ACL Kiln and the Seattle Kiln. Each 30-Day Rolling Average Emission Limit for NO<sub>x</sub> shall be based upon an analysis of CEMS data and clinker production data collected during the Demonstration Period, while the Kiln was optimized in accordance with Optimization Protocol approved by EPA pursuant to Section III of this Appendix A. Total pounds of an affected pollutant emitted during an individual Operating Day will be calculated from collected CEMS data for that Day. Hours or Days when there is no Kiln Operation may be excluded from the analyses. However, Ash Grove shall provide an explanation in the Demonstration Report(s) for any data excluded from the analyses. In any event, Ash Grove shall include all data required to be collected during the Demonstration Period in the Final Demonstration Report(s).

- e. For the Louisville ACL Kiln and the Seattle Kiln, Ash Grove shall propose 30-Day Rolling Average Emission Limits for NO<sub>x</sub> for each Kiln in each Demonstration Report as provided in the preceding Paragraph and in accordance with the definition of “30-Day Rolling Average Emission Limit” in the Consent Decree. The final 30-Day Rolling Average Emission Limit shall be calculated in accordance with the following formula:

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

X = 30-Day Rolling Average Emission Limit (lb/Ton of clinker)

$\mu$  = arithmetic mean of all of the 30-Day rolling averages

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

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

Notwithstanding Section XIII of this Consent Decree (Review and Approval of Submittals), EPA shall either approve the proposed 30-Day Rolling Average Emission Limit or establish an alternative final 30-Day Rolling Average Emission Limit. If EPA approves Ash Grove’s proposed 30-day Rolling Average Emission limit, Ash Grove shall demonstrate compliance and maintain compliance with EPA’s final 30-day Rolling Average Emission Limit within 30 days of receipt of EPA’s notice. If EPA establishes an alternative final 30-Day Rolling Average Emission Limit that differs from Ash Grove’s proposed 30-Day Rolling Average Emission Limit, Ash Grove shall demonstrate compliance and maintain compliance with EPA’s final 30-Day Rolling Average Emission Limit within 30 days of receipt of EPA’s notice. If Ash Grove invokes Dispute Resolution, it shall follow the procedures set forth in Paragraph 112 (Informal Dispute Resolution for Emission Limit Setting Process under Appendix A) to hire an independent contractor to review and make a non-binding recommendation regarding the appropriate final 30-Day Rolling Average Emission Limit. During the period of Dispute

Resolution, Ash Grove shall demonstrate compliance and maintain compliance with EPA's final 30-Day Rolling Average Emission Limit.

**Appendix B to Consent Decree**  
**PM Continuous Parametric Monitoring System Requirements**

**I. CPMS**

- (1) A PM Continuous Parametric Monitoring System (“CPMS”) is a monitoring system which uses an operating principle based on in-stack or extractive light scatter, light scintillation or beta attenuation. Ash Grove shall examine the fuel and process conditions of each stack as well as the capabilities of these devices before selecting a particular CPMS technology under this Decree. The reportable measurement output from the PM CPMS may be expressed as millamps, stack concentration or other raw data signal. If Ash Grove wishes to use a CPMS other than those described in this Paragraph or to install a PM CEM, Ash Grove may propose an alternate CPMS or CEM to EPA for approval no later than 120 days prior to the CPMS installation date required under this Decree.
- (2) Except during CPMS breakdowns, repairs, calibration checks, and zero span adjustments, the CPMS required pursuant to this CD shall be operated at all times during Kiln Operation.

**II. Site-Specific Operating Limit**

- (1) The Site Specific Operating Limit (SSOL) will be established as required in Paragraph 60.
- (2) Each CPMS shall be used at each Kiln to demonstrate compliance with the SSOL.
- (3) Defendant shall reassess and adjust each SSOL, developed in accordance with Paragraph 59 and 60 and in accordance with Section II of this Appendix and in accordance with the results of each most recent PM performance test demonstrating compliance with the PM Emission Limit. The SSOL will correspond to the highest 1 hour average CPMS output value recorded during any performance test demonstrating compliance.
- (4) Each CPMS required pursuant to Paragraph 59 shall monitor and record the output data for all periods of Kiln Operation and the CPMS is not out-of-control. Compliance with the SSOL must be demonstrated by using all quality-assured hourly average data collected by the CPMS for all hours of Kiln Operation to calculate the arithmetic average operating parameter in units of the operating limit (e.g., millamps, PM concentration, raw data signal) on a 30 Operating Day rolling average basis, updated at the end of each new Kiln Operating Day.

**III. Deviations of the CPMS**

- (1) To determine continuous compliance, Ash Grove must record the PM CPMS output data for all periods of Kiln Operation when the PM CPMS is not out-of-control. Ash Grove must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (e.g., millamps, PM concentration, raw

data signal) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. Use the following equation to determine the 30 kiln operating day average.

$$30\text{ kiln operating day} = \frac{\sum_{i=1}^n Hpv_i}{n}$$

where:

$Hpv_i$  = The hourly parameter value for hour i; n is the number of valid hourly parameter values collected over 30 kiln operating days.

(2) For any deviation from the SSOL established in accordance with Paragraph 60 of the Decree, Ash Grove shall:

- a. Within 48 hours of the deviation, visually inspect the PM Control Technology;
- b. If inspection of the PM Control Technology identifies the cause of the deviation, take corrective action as soon as possible, and return the CPMS measurement to within the SSOL;
- c. Within 45 Days of the deviation or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the SSOL consistent with Section II of this Appendix B, above. Ash Grove is not required to conduct additional testing for any deviations that occur between the time of the original deviation and the PM emissions compliance test required under this subparagraph; and
- d. Except as identified in Section III(3) below, deviation from the SSOL does not a constitute a violation of the Consent Decree and is not subject to stipulated penalties under Section XV of this Decree (Stipulated Penalties).

(3) Any deviation of the 30 day rolling average from the established SSOL leading to more than four required performance tests in a 12-consecutive month period (rolling monthly) shall be treated as a separate violation of this Consent Decree and subject to stipulated penalties under Section XV of this Decree (Stipulated Penalties).

#### **IV. Alkali Bypass**

(1) If any of Ash Grove's kiln gases are diverted through an alkali bypass, Ash Grove must account for the PM emitted from the alkali bypass stack by following the procedures in this Appendix B.

- (2) Ash Grove must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the exhaust gas flow rate to the atmosphere from the alkali bypass stack according to the requirements of 40 C.F.R. 63.1350(n).
- (3) Ash Grove will conduct an annual EPA Method 5 or Method 5I performance test to determine total PM emissions from the alkali bypass as well as the Kiln.
- (4) Ash Grove will use the maximum exhaust gas flow rate from the alkali bypass during Ash Groves annual performance test demonstrating compliance with the PM Emission Limit as the SSOL for each alkali bypass. Ash Grove must continuously monitor the flow rate until the next performance test. If there is an increase of the monitored flow rate from the maximum established during the last performance test by more than 10 percent, Ash Grove must retest the Kiln and alkali bypass to determine compliance.

## V. Performance Tests

For each performance test, Ash Grove shall conduct three separate runs under the conditions that exist when the Kiln is operating at the highest load or capacity level reasonably expected to occur. Ash Grove shall conduct each test run to collect a minimum sample volume of 2 dry standard cubic meter (“dscm”) for determining compliance with a new source limit and 1 dscm for determining compliance with a existing source limit. Ash Grove shall calculate the average of the results from three runs to determine compliance. Ash Grove need not determine the PM collected in the impingers (“back half”) of the EPA Method 5 or Method 5I particulate sampling train to demonstrate compliance with the PM Emission Limits of this Consent Decree. This shall not preclude the permitting authority from requiring a determination of the “back half” for other purposes nor shall it be deemed to exempt Ash Grove from any other applicable PM limit.

## **Appendix C to Consent Decree Environmental Mitigation Projects**

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

### **Clean Diesel Replacement Projects**

1. Defendant shall implement the following schedule to replace the identified in-service diesel engines with diesel engines that have emission control equipment further described in this Paragraph 1 of this Appendix C, designed to reduce approximately 28 tons per year of emissions of NOx, particulates and/or ozone precursors (the "Projects" or "Project"):
  - a. By December 31, 2013, at the Foreman, Arkansas plant, Defendant shall replace the 2003 Terex Haul Truck, Model TA-40, Engine Serial Number 06R0718605 with a replacement Truck with a Tier 4 engine in accordance with Tier 4 engine standards under 40 CFR Part 89;
  - b. By December 31, 2013, at the Chanute, Kansas plant, Defendant shall replace the currently unregulated Tier 0, 1986 CAT Dozer, Model D8L, Engine Serial Number 48W22583 with a replacement dozer with a Tier 2 engine in accordance with Tier 2 engine standards under 40 CFR Part 89; and
  - c. By December 31, 2013, at the Midlothian, Texas plant, Defendant shall replace the current Tier 0 1977 Euclid Haul Truck, Model 302LD, Engine Serial Number 10623360 with a replacement Truck with a Tier 4 engine in accordance with Tier 4 engine standards under 40 CFR Part 89.
2. Defendant shall provide a mechanism by which each replaced engine in Paragraph 1 of this Appendix C above is properly disposed of, which must include destruction of the engine block.
3. Nothing in this Consent Decree shall be interpreted to prohibit Defendant from completing any of the Projects ahead of schedule.
4. In accordance with the requirements of Paragraph 65 of the Consent Decree, within 60 Days following the completion of each Project, Defendant shall submit to U.S. EPA for approval a report that documents:
  - a. The date the Project was completed;
  - b. The results of implementation of the Project, including the estimated emission reductions or other environmental benefits achieved; and

c. The cost incurred by Defendant in implementing the Project.