

CONSENT DECREE

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WHEREAS, Plaintiff, the United States of America, on behalf of the United States Environmental Protection Agency (herein "U.S. EPA"), has simultaneously lodged this Consent Decree and filed a Joint Complaint against Defendant, Essroc Cement Corp. ("Essroc") pursuant to Sections 113(b) and 167 of the Clean Air Act ("Clean Air Act" or "the Act"), 42 U.S.C. §§ 7413(b) and 7477. The complaint seeks 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 Defendant's Portland cement plants which are located in four (4) different 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 federally-approved and enforceable state implementation plans ("SIPs"), which incorporate and/or implement the above-listed federal PSD and/or nonattainment NSR requirements; and Title V of the Act, 42 U.S.C. §§ 7661-7661f, and Title V's implementing federal and state regulations.

WHEREAS, the Commonwealth of Pennsylvania, Department of Environmental Protection, the State of West Virginia, the State of Indiana, and the Commonwealth of Puerto Rico (collectively, "State Plaintiffs") have filed a Joint Complaint with the United States;

WHEREAS, U.S. EPA has provided notice of the violations alleged herein to the Defendant and to the Commonwealth of Pennsylvania, the State of West Virginia, the State of Indiana, and the Commonwealth of Puerto Rico, where Defendant's Facilities identified in the Joint Complaint are located, 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 Joint Complaint and that it does not contest the adequacy of the notice provided.

WHEREAS, Essroc denies the allegations of the Joint Complaint and does not admit that it has any liability to the United States or the State Plaintiffs for civil penalties or injunctive relief arising out of the transactions and occurrences alleged in the Joint Complaint;

WHEREAS, in settlement of the allegations referred to above, Defendant has, among other things, agreed to permanently retire the plant located in Bessemer, Pennsylvania;

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

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

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

I. JURISDICTION AND VENUE

1. This Court has jurisdiction of the subject matter herein and over the Parties consenting hereto pursuant to Sections 113(b) and 167 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 Joint Complaint, the 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 Joint Complaint filed by the Plaintiff and State 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, Essroc agrees that the Joint 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.

II. APPLICABILITY

3. The obligations of this Consent Decree apply to and are binding upon the United States, the Commonwealth of Pennsylvania, the State of West Virginia, the State of Indiana, and the Commonwealth of Puerto Rico and upon Essroc, and any successors, assigns, or other entities or persons otherwise bound by law.

4. At least 30 Days prior to any transfer of ownership or operation of any Facility identified in Paragraph 7(t), Essroc shall provide a copy of this Consent Decree to the proposed transferee and shall simultaneously provide written notice of the prospective transfer, together with a copy of the proposed written agreement, to U.S. EPA, the United States, and the Affected State(s) in accordance with Section XIX (Notices) of this Consent Decree. No transfer of ownership or operation of a Facility identified in Paragraph 7(t), whether in compliance with the procedures of this Paragraph or otherwise, shall relieve Essroc 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 VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements), VII (SO₂ Control Technology, Emission Limits, and Monitoring Requirements), VIII

(Temporary Cessation of Kiln Operation), IX (Prohibition on Netting Credits or Offsets From Required Controls), Section X (Permits), Section XI (Review and Approval of Submittals), Section XII (Reporting Requirements), Section XIII (Stipulated Penalties), Section XIV (Force Majeure), Section XV (Dispute Resolution), and XVI (Information Collection and Retention) of this Decree applicable to such Facility 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 XXII (Modification).

5. Any attempt to transfer ownership or operation of any of the Facilities identified in Paragraph 7(t) or any portion thereof, without complying with Paragraph 4 above constitutes a violation of this Decree.

6. Essroc shall provide a copy of this Consent Decree to all officers, employees, and agents whose duties might reasonably include compliance with any provision of this Decree, as well as to any Contractor retained to provide services required to comply with the provisions of this Consent Decree. Essroc shall condition any agreement with such contractor upon performance of the services in conformity with the provisions of this Consent Decree. In any action to enforce this Consent Decree, Essroc shall not raise as a defense the failure by any of its

officers, directors, employees, agents, or Contractors to take any actions necessary to comply with the provisions of this Consent Decree.

III. DEFINITIONS

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

- a. "30-Day Rolling Average Emission Limit" shall mean with respect to any Kiln at a Facility, the maximum allowable rate of emission of a specified air pollutant from such Kiln 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 Rate applies pursuant to Appendix A or B as applicable, or the 30th Day after the applicable deadline for Commencement of Continuous Operation pursuant to Sections VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and VII (SO₂ Control Technology, Emission Limits, and Monitoring Requirements): first, sum the total pounds of the air pollutant in question emitted from the Kiln during an Operating Day and the previous twenty-nine (29) Operating Days as measured pursuant to Section VI B. (NO_x Continuous Emission Monitoring Systems) or Section VII B (SO₂ Continuous Emission Monitoring Systems), as applicable; second, sum the total Tons of clinker produced by the Kiln 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 during the thirty (30) Operating Days by the total Tons of clinker produced by such Kiln during the same 30 Operating Days. A new compliance determination of the 30-Day Rolling Average Emission Limit shall be calculated for each new Operating Day in accordance with the provisions of this Consent Decree. In calculating each compliance determination of the 30-Day Rolling Average Emission Limit in accordance with this Paragraph 7(a), for a specified air pollutant at any Facility, the total pounds of such air pollutant emitted from the Kiln 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 XV (Force Majeure) and Essroc has complied with the requirements of that Section.

- b. "30-Day Rolling Average Emission Rate" shall mean with respect to each Kiln the rate of emission of a specified air pollutant (NO_x or SO_2) expressed as pounds (lbs.) per Ton of clinker produced at such Kiln(s) and calculated in accordance with the following procedure: first, sum the total pounds of the pollutant in question emitted from the specified Kiln(s) during an Operating Day and the previous twenty-nine (29) Operating Days, as measured pursuant to Section VI.B. (NO_x Continuous Emission Monitoring Systems) or Section VII.B. (SO_2 Continuous Emission Monitoring Systems), as applicable; second, sum the total Tons of clinker produced by that Kiln during the same Operating Day and previous 29 Operating Days; and third, divide the total number of pounds of the specified pollutant emitted from the Kiln(s) during the thirty (30) Operating Days referred to above by the total Tons of clinker produced at

such Kiln(s) during the same 30 Operating Days. A new 30-Day Rolling Average Emission Rate shall be calculated for each new Operating Day. In calculating each 30-Day Rolling Average Emission Rate, the total pounds of any pollutant emitted from a Kiln during a specified period (Operating Day or 30-Day Period) shall include all emissions of that pollutant from the subject Kiln that occur during the specified period, including emissions during each Malfunction;

- c. "Affected State" shall mean any State Plaintiff and its agencies and political subdivisions having jurisdiction over a Facility addressed in this Consent Decree;
- d. "Business Day" means any Day, except for Saturday, Sunday, and federal holidays.
- e. "CEMS" or "Continuous Emission Monitoring System" shall mean, for obligations involving NO_x and SO₂ under this Consent Decree, the devices defined, installed, calibrated, maintained, and operated in accordance with 40 C.F.R. § 60.13 and 40 C.F.R. Part 60 Appendix B and Appendix F;
- f. "Commence" or "Commencement" of operation of a Control Technology shall mean to begin the introduction of the reagent employed by the Control Technology, as applicable to that technology, or where the technology is otherwise activated;
- g. "Consent Decree" or "Decree" shall mean this Decree and the Appendices attached hereto, but in the event of any conflict between the text of this Decree and any Appendix, the text of this Decree shall control;
- h. "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, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for such Control Technology and the Kiln;

- i. "Contractor" shall mean any person or entity hired by Essroc to perform services on its behalf necessary to comply with the provisions of this Consent Decree;
- j. "Control Efficiency" shall mean the extent of reduction in the emissions of a specific air pollutant;
- k. "Control Technology" shall mean Selective Non-Catalytic Reduction, Selective Catalytic Reduction, or Dry Scrubber;
- l. "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 Western District of Pennsylvania;
- m. "Day" shall mean a calendar day unless expressly stated to be a Business Day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next Business Day;
- n. "Defendant" or "Essroc" shall mean Essroc Cement Corp.
- o. "Demonstration" shall mean that period of time identified in Appendix A and Appendix B during which Essroc will establish a 30-Day Rolling Average Emission Limit that is achievable through the implementation of Control Technology at a given Kiln and that will be applied in accordance with Sections VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and VII (SO₂ Control Technology, Emission Limits, and Monitoring Requirements) of this Consent Decree;
- p. "Dry Scrubber" shall mean a pollution control system that injects or otherwise combines an alkaline reagent directly with the Kiln gas stream to achieve the reduction of sulfur dioxide emissions;

- q. "Effective Date" shall have the meaning given in Section XX (Effective Date);
- r. "Emission Limit" shall mean the maximum allowable Emission Limit of a specified air pollutant from any Kiln and shall be expressed as pounds of such air pollutant emitted per Ton of clinker produced;
- s. "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;
- t. "Facilities" shall mean the following six (6) Portland cement manufacturing facilities used for the production of Portland cement. Each of these facilities may be referred to as a "Facility."

- (1) Bessemer Cement Plant, Second Street, PO Box 779; Bessemer, PA 16112 (hereinafter "Bessemer");
- (2) Martinsburg Cement Plant, 1826 South Queen Street, PO Box 885, Martinsburg, WV 25402 (hereinafter "Martinsburg");
- (3) Logansport Cement Plant, 3084 West County Road 225 South , Logansport, IN 46947 (hereinafter "Logansport");
- (4) Speed Cement Plant, 301 Highway 31, Speed, IN 46947 (hereinafter "Speed");
- (5) Nazareth Cement Plant, 3938 Easton Nazareth Highway, Nazareth, PA 18064 (hereinafter "Nazareth");
- (6) San Juan Cement Plant, Carr 2 km 267 Bo Espnoza Street CA, Dorado, PR 00646 (hereinafter "San Juan")

- u. "Joint Complaint" shall mean the complaint filed jointly by the United States in this action and the intervening State Plaintiffs in this action;
- v. "Kiln" as used in this Consent Decree shall have the same meaning as defined at 40 C.F.R. § 63.1341. The following are identified as the individual Kilns at each Facility:
 - (1) Bessemer, Pennsylvania: Bessemer Kiln 4, Bessemer Kiln 5;
 - (2) Martinsburg, West Virginia: Martinsburg Kiln 1;
 - (3) Logansport, Indiana: Logansport Kiln 1, Logansport Kiln 2;
 - (4) Speed, Indiana: Speed Kiln 1, Speed Kiln 2;
 - (5) Nazareth, Pennsylvania: Nazareth Kiln 1
 - (6) San Juan, Puerto Rico: San Juan Kiln 3
- w. "Kiln Operation" shall mean any period when any raw materials are fed into the Kiln or any period when any combustion is occurring or fuel is being fired in the Kiln;
- x. "Malfunction" as used in this Consent Decree shall have the same meaning as defined at 40 C.F.R. § 60.2;
- y. "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;
- z. "NO_x" shall mean oxides of nitrogen, measured in accordance with the provisions of this Consent Decree;
- aa. "Nonattainment NSR" shall mean the nonattainment 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.

- bb. "Operating Day" shall mean any Day on which Kiln Operation has occurred;
- cc. "Operating Month" shall mean any calendar month in which Kiln Operation has occurred;
- dd. "Optimization Period" shall mean the time requirement established in the process described in Section IV of Appendix A (Control Technology Demonstration Requirements);
- ee. "Paragraph" shall mean a portion of this Decree identified by an Arabic numeral;
- ff. "Parties" shall mean the United States, the Commonwealth of Pennsylvania, Department of Environmental Protection; the State of West Virginia; the State of Indiana; the Commonwealth of Puerto Rico; and Essroc;
- gg. "Plaintiffs" shall mean the United States and the State Plaintiffs, collectively;
- hh. "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;
- ii. "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.
- jj. "Section" shall mean a portion of this Decree identified by a Roman numeral;
- kk. "Selective Catalytic Reduction System" or "SCR" shall mean a pollution control system that employs ammonia-based reagent injection and a catalyst to speed the reaction of the reagent with NO_x, for the purpose of reducing NO_x emissions;

- ll. "Selective Non-Catalytic Reduction" or "SNCR" shall mean a pollution control system that injects an ammonia-based reagent into the gas stream without the use of a catalyst for the purpose of reducing NO_x emissions;
- mm. "SO₂" means the pollutant sulfur dioxide, measured in accordance with the provisions of this Consent Decree;
- nn. "Shut Down" shall mean the cessation of Kiln Operation;
- oo. "Startup" shall mean the beginning of Kiln Operation;
- pp. "State Plaintiff" or "State" shall mean any of the following: the Commonwealth of Pennsylvania, Department of Environmental Protection; the State of West Virginia; the State of Indiana; or the Commonwealth of Puerto Rico;
- qq. "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 Essroc has provided the required notice pursuant to Paragraph 30 of Section VIII (Temporary Cessation of Kiln Operation) of this Consent Decree;
- rr. "Title V permit" shall mean a permit required by and issued in accordance with the requirements of 42 U.S.C. §§ 7661 - 7661f;
- ss. "Ton" or "Tons" shall mean short ton or short tons;
- tt. "United States" shall mean the United States of America, acting on behalf of U.S. EPA; and
- uu. "U.S. EPA" shall mean the United States Environmental Protection Agency and any of its successor departments or agencies;

IV. CIVIL PENALTY

8. Within thirty (30) Days after the Effective Date of this Consent Decree, Essroc shall pay to the United States as a civil penalty the sum of \$850,000, 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. Essroc shall pay the civil penalty due under this Paragraph 8 by FedWire Electronic Funds Transfer (“EFT”) to the U.S. Department of Justice in accordance with written instructions to be provided to Essroc following lodging of the Consent Decree by the Financial Litigation Unit of the U.S. Attorney’s Office for the Western District of Pennsylvania. At the time of payment, Essroc 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. Essroc Cement Corp, adv..., and shall reference the civil action number and DOJ case number 90-5-2-1-09608, to the United States in accordance with Section XX of this Decree (Notices); by email to acctsreceivable.CINWD@epa.gov; and to:

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

9. Within thirty (30) Days after the Effective Date of this Consent Decree, Essroc shall pay civil penalties, together with interest accruing from the Effective Date through the date of payment at the rate identified in Paragraph 8 above, a total of \$850,000 in the following amounts to the following Affected States in accordance with the payment instructions below in Table 1:

Table 1

State	Amount	Payment Instructions
Pennsylvania	\$283, 333 (plus interest per Paragraph 8 if applicable)	Check made payable and mailed to: Commonwealth of Pennsylvania - Clean Air Fund Attn: Mark Wejkszner Air Quality Program Manager PA Department of Environmental Protection, 2 Public Square Wilkes-Barre, PA 18711
West Virginia	\$141, 667 (plus interest per Paragraph 8 if applicable)	Check made payable and mailed to: Air Pollution Education & Environmental Fund West Virginia Division of Air Quality Attn: John A. Benedict, Director 601 57th St. SE Charleston, WV 25304
Indiana	\$283, 333 (plus interest per Paragraph 8 if applicable)	Check made payable and mailed to: "Environmental Management Special Fund" Indiana Department of Environmental Management Cashier – Mail Code 50-10C 100 North Senate Avenue Indianapolis, IN 46204-2251
Puerto Rico	\$141, 667 (plus interest per Paragraph 8 if applicable)	Check made payable and mailed to: Puerto Rico Environmental Quality Board Pedro Nieves Miranda, Chairman Puerto Rico Environmental Quality Board PO BOX 11488 SAN JUAN , PR 00910 Att. Luis R Sierra Torres, Manager Air Quality Area

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

V. ENVIRONMENTAL MITIGATION

11. Essroc shall implement the Environmental Mitigation Projects ("Project" or "Projects") described in Appendix C of this Consent Decree.

12. Essroc shall maintain, and, within 30 days upon Plaintiffs request, provide to Plaintiffs all documents that substantiate work completed on the Projects in accordance with Section XIX (Notices).

13. Essroc shall certify, within thirty (30) days before each engine replacement described in Appendix C, that Essroc is not otherwise required by law to perform the Project, that Essroc is unaware of any other person who is required by law to perform the Project, and that Essroc will not use any of the Project, or portion thereof, to satisfy any obligations that it may have under other applicable requirements of law.

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

15. Within sixty (60) days following the completion of the Projects required under this Consent Decree, Essroc shall submit to Plaintiffs a report that documents the date that the Project was completed, Essroc's results from implementing the Project, including the emission reductions or other environmental benefits achieved, and the money expended by Essroc in implementing the Project (including the emission reductions achieved for NO_x and SO₂).

16. In connection with any communication to the public or to shareholders regarding Essroc's actions or expenditures relating in any way to the Environmental Mitigation Projects in this Consent Decree, Essroc 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 Essroc violated the Clean Air Act.

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

A. NO_x Control Technology and Emission Limits

17. Subject to Section VIII (Temporary Cessation of Kiln Operation), Defendant shall install the NO_x Control Technology and comply with the Emission Limits for the specific Kilns within its system according to Table 2 below and Paragraphs 18 and 19. Defendant shall Continuously Operate each NO_x Control Technology as applicable to each Kiln.

Table 2

Kiln	Control Technology	30-Day Rolling Average Emission Limit (lb/ton clinker produced)	Date required to meet 30-Day Rolling Average Emission Limit
Bessemer Kiln 4	N/A	Retire	December 31, 2011
Bessemer Kiln 5	N/A	Retire	December 31, 2011
Martinsburg Kiln 1	SNCR	2.15	December 31, 2012
Logansport Kiln 1	Option A: SCR	Demonstration pursuant to Paragraph 19 and Appendix B	Schedule pursuant to Paragraph 19 and Appendix B.
	Option B*: SNCR	Demonstration of SNCR pursuant to Paragraphs 19 and Appendix A, Emission Limit no higher than 7.00	Schedule pursuant to Paragraph 19 and Appendix A
Logansport Kiln 2	Option A: SCR	Demonstration pursuant to Paragraph 19 and Appendix B.	Schedule pursuant to Paragraph 19 and Appendix B
	Option B*: SNCR	Demonstration of SNCR pursuant to Paragraphs 19 and Appendix A, Emission Limit no higher than 7.00	Schedule pursuant to Paragraph 19 and Appendix A

Speed Kiln 1	SNCR	3.50	December 31, 2013
Speed Kiln 2	SNCR	2.10	December 31, 2012
Nazareth Kiln 1	SNCR	2.30	July 1, 2012
San Juan Kiln 3	SNCR	Demonstration of SNCR pursuant to Paragraph 19 and Appendix A, Emission Limit no higher than 2.30	December 31, 2013

* Selection of Option B is subject to the requirements of Paragraph 19.

San Juan Kiln 3

18. Subject to Section VIII (Temporary Cessation of Kiln Operation), for the San Juan Kiln 3:

- a. Essroc shall have installed and Commenced Continuous Operation of SNCR technology by the date specified in Table 2 above;
- b. Pursuant to Appendix A, Essroc shall propose to U.S. EPA a 30-Day Rolling Average Emission Limit for NO_x applicable to San Juan Kiln 3 that is no less stringent than 2.30 lb/ton of clinker and that represents the optimal performance and Continuous Operation of the SNCR technology. Within 30 Days after proposing a 30-Day Rolling Average Emission Limit for NO_x at San Juan Kiln 3 under Appendix A, Essroc shall achieve and thereafter maintain compliance with the proposed 30-Day Rolling Average Emission Limit for NO_x at the Kiln. U.S. EPA shall review the proposed 30 Day Rolling Average Emission Limit pursuant to Appendix A and Section XI (Review and Approval of Submittals).

Logansport Kiln 1

19. Subject to Section VIII (Temporary Cessation of Kiln Operation), for Logansport Kiln 1 and Kiln 2:

- a. Essroc shall submit, by July 31, 2013, to U.S. EPA for review and approval pursuant to Section XI (Review and Approval of Submittals) of this Consent Decree, a SCR Pilot Report. The SCR Pilot Report shall contain all the information identified in Appendix B of this Consent Decree. U.S. EPA shall expeditiously review the SCR Pilot Report submitted by Essroc pursuant to Appendix B and Section XI (Review and Approval of Submittals).
- b. Following approval by U.S. EPA of the SCR Pilot Report described in Paragraph 19(a) above, and unless otherwise authorized pursuant to Paragraph 19(c) below, Essroc shall install and Commence Continuous Operation of SCR technology by September 30, 2014, and:
 - i. Begin Demonstration of SCR, pursuant to Appendix B, by December 31, 2014;
 - ii. Pursuant to Appendix B, by May 31, 2015, propose to U.S. EPA a 30-Day Rolling Average Emission Limit for NO_x applicable to Logansport Kiln 1 that represents the optimal performance and Continuous Operation of the SCR technology. Within 30 Days after proposing a 30-Day Rolling Average Emission Limit for NO_x at Logansport Kiln 1 under Appendix B, Essroc shall achieve and thereafter maintain compliance with the proposed 30-Day Rolling Average Emission Limit for NO_x at the Kiln. U.S. EPA shall review the proposed 30 Day Rolling Average Emission Limit pursuant to the provisions of Appendix B and Section XI (Review and Approval of Submittals). Pursuant to Paragraph 14 of Appendix B, if EPA's review results in an alternative final 30-day Rolling Average

Emission Limit, Essroc shall comply with the alternative final 30-day Rolling Average Emission Limit within 30 days of EPA's notice.

- c. If following review by U.S. EPA of the SCR Pilot Report described in Paragraph 19(a) above, U.S. EPA concurs that SCR at Logansport Kiln 1 is unsuccessful pursuant to Paragraph 8 of Appendix B, Essroc shall install and Commence Continuous Operation of SNCR technology by September 30, 2014 at Logansport Kiln 1 in lieu of installation of SCR. If Essroc installs SNCR pursuant to this Paragraph 19(c), Essroc shall propose, by December 31, 2014, a 30-Day Rolling Average Emission Limit for NO_x, pursuant to Appendix A, that is applicable to Logansport Kiln 1 that is no less stringent than 7.00 lb/ton of clinker and that represents the optimal performance and Continuous Operation of the SNCR technology. Within 30 Days after proposing a 30-Day Rolling Average Emission Limit for NO_x at Logansport Kiln 1 under Appendix A, Essroc shall achieve and thereafter maintain compliance with the proposed 30-Day Rolling Average Emission Limit for NO_x at the Kiln. U.S. EPA shall review the proposed 30 Day Rolling Average Emission Limit pursuant to Appendix A and Section XI (Review and Approval of Submittals). Pursuant to Paragraph 24 of Appendix A, if EPA's review results in an alternative final 30-day Rolling Average Emission Limit, Essroc shall comply with the alternative final 30-day Rolling Average Emission Limit within 30 days of EPA's notice.

Logansport Kiln 2

- d. If Essroc installs SCR at Logansport Kiln 1, pursuant to Paragraph 19(c) above, Essroc shall install SCR and Commence Continuous Operation of SCR technology at Logansport Kiln 2, by September 30, 2015, and:
- i. Begin Demonstration of SCR at Logansport Kiln 2, pursuant to Appendix B, by December 31, 2015;
 - ii. Pursuant to Appendix B, by May 31, 2016, propose to U.S. EPA a 30-Day Rolling Average Emission Limit for NO_x applicable to Logansport Kiln 2 that represents the optimal performance and Continuous Operation of the SCR technology. Within 30 Days after proposing a 30-Day Rolling Average Emission Limit for NO_x at Logansport Kiln 2 under Appendix B, Essroc shall achieve and thereafter maintain compliance with the proposed 30-Day Rolling Average Emission Limit for NO_x at the Kiln. U.S. EPA shall review the proposed 30 Day Rolling Average Emission Limit pursuant to Appendix B and Section XI (Review and Approval of Submittals). Pursuant to Paragraph 14 of Appendix B, if EPA's review results in an alternative final 30-day Rolling Average Emission Limit, Essroc shall comply with the alternative final 30-day Rolling Average Emission Limit within 30 days of EPA's notice.
- e. If Essroc installs SNCR at Logansport Kiln 1, pursuant to Paragraph 19(c) above, Essroc shall install SNCR and commence Continuous Operation of SNCR technology at Logansport Kiln 2, in lieu of installing SCR technology at Logansport Kiln 2, by September 30, 2015. If Essroc installs SNCR pursuant to this Paragraph 19(e), Essroc shall propose, by December 31, 2015, a 30-Day

Rolling Average Emission Limit for NO_x, pursuant to Appendix A, that is applicable to Logansport Kiln 2 that is no less stringent than 7.00 lb/ton of clinker and that represents the optimal performance and Continuous Operation of the SNCR technology. Within 30 Days after proposing a 30-Day Rolling Average Emission Limit for NO_x at Logansport Kiln 2 under Appendix A, Essroc shall achieve and thereafter maintain compliance with the proposed 30-Day Rolling Average Emission Limit for NO_x at the Kiln. U.S. EPA shall review the proposed 30 Day Rolling Average Emission Limit pursuant to Appendix A and Section XI (Review and Approval of Submittals). Pursuant to Paragraph 24 of Appendix A, if EPA's review results in an alternative final 30-day Rolling Average Emission Limit, Essroc shall comply with the alternative final 30-day Rolling Average Emission Limit within 30 days of EPA's notice.

B. NO_x Continuous Emission Monitoring Systems

20. At San Juan Kiln 3 and Martinsburg Kiln 1, Essroc shall install and make operational, within 30 days of the Effective Date of this Consent Decree, a NO_x continuous emissions monitoring system (CEMS) to monitor NO_x emissions at each stack which collects emissions from such Kiln. Essroc shall Continuously Operate the existing NO_x CEMS at the Nazareth Kiln 1, Speed 1 and 2 Kilns, and Logansport 1 and 2 Kilns. For any kilns that have an alkali bypass, Essroc shall ensure that emissions from all alkali bypass systems are monitored by CEMS. All CEM's shall be operated and maintained in accordance with the requirements of 40 C.F.R. Part 60.

21. Except during CEMS breakdowns, repairs, calibration checks, and zero span adjustments, the CEMS required pursuant to Paragraph 20 above shall be operated at all times

during Kiln Operation. Each such CEMS shall be used at each Kiln to demonstrate compliance with the NO_x Emission Limits established in Section VI.A (NO_x Control Technology and Emission Limits) and Appendix A (Control Technology Demonstration Requirements), as applicable, of this Consent Decree.

22. Each NO_x CEMS required pursuant to Paragraph 20 shall monitor and record the applicable NO_x Emission Rate from each Kiln and shall be installed, certified, calibrated, maintained, and operated in accordance with the applicable requirements of 40 C.F.R. Part 60, and any requirements established by applicable State regulations.

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

VII. SO₂ CONTROL TECHNOLOGY, EMISSION LIMITS, AND MONITORING REQUIREMENTS

A. SO₂ Control Technology and Emission Limits

24. Subject to Section VIII (Temporary Cessation of Kiln Operation), Defendant shall, as applicable, install the SO₂ Control Technology and comply with the Emission Limits for the specific Kilns within their system according to Table 3 and Paragraph 25. Defendant shall Continuously Operate each SO₂ Control Technology as applicable to each Kiln.

Table 3

Kiln	Control Technology	30-Day Rolling Average Emission Limit (lb/ton clinker produced)	Date required to meet 30-Day Rolling Average Emission Limit
Bessemer Kiln 4	N/A	Retire	July 1, 2011

Bessemer Kiln 5	N/A	Retire	July 1, 2011
Martinsburg Kiln 1	Dry Scrubber	Demonstration of Dry Scrubber pursuant to Appendix A and Paragraph 25, Emission Limit no higher than 1.50	December 31, 2012
Logansport Kiln 1	Dry Scrubber	3.50	December 31, 2013
Logansport Kiln 2	Dry Scrubber	4.80	December 31, 2014
Speed Kiln 1	Dry Scrubber	1.00*	December 31, 2013
Speed Kiln 2	Dry Scrubber	1.70*	December 31, 2013
Nazareth Kiln 1	Dry Scrubber	1.80	December 31, 2014
San Juan Kiln 3	Dry Scrubber	1.00	December 31, 2013

*Limit includes emissions from the alkali bypass

25. Subject to Section VIII (Temporary Cessation of Kilns), for Martinsburg Kiln 1:
- a. Essroc shall have installed and Commenced Continuous Operation of Dry Scrubber technology by the date specified in Table 3 above;
 - b. Pursuant to Appendix A, Essroc shall propose to U.S. EPA a 30-Day Rolling Average Emission Limit for SO₂ applicable to Martinsburg Kiln 1 that is no less stringent than 1.50 lb/ton of clinker and that represents the optimal performance and Continuous Operation of the Dry Scrubber technology. Within 30 Days after proposing a 30-Day Rolling Average Emission Limit for SO₂ at Martinsburg Kiln 1 under Appendix A, Essroc shall achieve and thereafter maintain compliance with the proposed 30-Day Rolling Average Emission Limit for SO₂ at the Kiln. U.S. EPA shall review the proposed 30-Day Rolling Average Emission Limit pursuant to Appendix A. Pursuant to Paragraph 24 of Appendix A, if EPA's review results in an alternative final 30-day Rolling Average Emission Limit,

Essroc shall comply with the alternative final 30-day Rolling Average Emission Limit within 30 days of EPA's notice.

B. SO₂ Continuous Emission Monitoring Systems

26. At San Juan Kiln 3 and Martinsburg Kiln 1, Essroc shall install and make operational within 30 days of the Effective Date, a SO₂ continuous emissions monitoring system (CEMS) to monitor SO₂ emissions at each stack which collects emissions from such Kiln. Essroc shall Continuously Operate existing SO₂ CEMS at the Nazareth Kiln 1, Speed 1 and 2 Kilns, and Logansport 1 and 2 Kilns. For any kilns that have an alkali bypass, Essroc shall ensure that emissions from all alkali bypass systems are monitored by CEMS. All CEMS shall be operated and maintained in accordance with the requirements of 40 C.F.R. Part 60.

27. Except during CEMS breakdowns, repairs, calibration checks, and zero span adjustments, the CEMS required pursuant to Paragraph 26 above shall be operated at all times of Kiln operation, and shall be used at each Kiln to demonstrate compliance with the SO₂ emission limits established in Section VII.A (SO₂ Control Technology and Emission Limits) and Appendix A (Control Technology Demonstration Requirements), as applicable, of this Consent Decree.

28. Each SO₂ CEMS required pursuant to Paragraph 26 shall monitor and record the applicable SO₂ Emission Rimit from each Kiln stack in units of pounds of SO₂ per Ton of clinker produced at such Kiln and shall be installed, certified, calibrated, maintained, and operated in accordance with the applicable requirements of 40 C.F.R. Part 60 and any requirements established by applicable State regulations.

29. For purposes of this Consent Decree, all emissions of SO₂ shall be measured by CEMS. During any time when CEMS are inoperable and otherwise not measuring emissions of

SO₂ from any Kiln, Essroc 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.

VIII. TEMPORARY CESSATION OF KILN OPERATION

30. 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 VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements), or Section VII (SO₂ Control Technology, Emission Limits, and Monitoring Requirements), Defendant shall provide written notice within ten (10) Days after such Temporary Cessation, or after the Effective Date of the Consent Decree, specifying the date on which such period of Temporary Cessation began. Defendant shall provide such written notice pursuant to Section XIX (Notices).

31. If Defendant has provided the written notice as required in Paragraph 30, above, Defendant shall not be required to install and Continuously Operate the Control Technology at that Kiln by the dates required in Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements), and Section VII (SO₂ 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 VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements), and Section VII (SO₂ Control Technology, Emission Limits, and Monitoring Requirements), of this Consent Decree with respect to that Kiln unless the Defendant has a) installed and Commenced Continuous Operation of the Control Technology required by this Consent Decree for that Kiln; b) commenced compliance with all requirements for that Kiln contained in Section VI (NO_x

Control Technology, Emission Limits, and Monitoring Requirements), and Section VII (SO₂ Control Technology, Emission Limits, and Monitoring Requirements); and 3) provided notice to U.S. EPA 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 or does not achieve compliance with all requirements for that Kiln contained in Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements), and Section VII (SO₂ Control Technology Emission Limits, and Monitoring Requirements), Defendant shall be liable for stipulated penalties pursuant to Section XIII (Stipulated Penalties).

32. In addition to complying with Paragraph 31, 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 federally-approved and enforceable SIPs which incorporate and/or implement the federal PSD and/or nonattainment NSR requirements, as applicable.

IX. PROHIBITION ON NETTING CREDITS OR OFFSETS FROM REQUIRED CONTROLS

33. Except as otherwise provided below, emission reductions resulting from compliance with the requirements of this Consent Decree (including the Retirement of Bessemer Kilns 4 and 5) shall not be considered as a creditable contemporaneous emission decrease for the purpose of obtaining a netting or offset credit under the Clean Air Act's Nonattainment NSR and PSD programs.

34. The limitations on the generation and use of netting credits or offsets set forth in

Paragraph 33 above do not apply to emission reductions achieved by Essroc 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 Essroc’s compliance with federally enforceable emissions limits that are more stringent than limits imposed under this Consent Decree or from Essroc’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.

35. 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.

X. PERMITS

36. Where any compliance obligation under this Consent Decree requires Essroc to obtain a federal, State, or local permit or approval Essroc 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. Essroc may seek relief under the provisions of Section XIV of this Consent Decree (Force Majeure) for any delay in the performance of any obligation under this Consent Decree resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if Essroc has submitted timely and complete applications in a manner that provides the permitting authority

sufficient and reasonable time to process the permit application, responded to requests for additional information by the permitting authority and taken all other actions necessary to obtain such permits or approvals in a timely fashion, and prosecuted appeals of any allegedly unlawful terms and conditions imposed by the permitting authority in a timely fashion.

37. In addition to having first obtained any required preconstruction permits or other approvals pursuant to Paragraph 36 above, Essroc, within 12 months after the Commencement of operation of each Control Technology required to be installed, upgraded, or operated on a Kiln under this Consent Decree, shall apply to the Affected State to include the requirements and limitations enumerated in this Consent Decree in a construction permit or other permit or approval (other than a Title V permit) which is federally enforceable, issued under the SIP of the Affected State, and issued under authority independent of the Affected State's authority to issue Title V permits. The permit or approval shall require compliance with any applicable 30-Day Rolling Average Emission Limit, and any monitoring requirements, including those in Sections VI.B and VII.B. of this Decree. Following submission of the application for the permit or approval, Essroc 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.

38. Upon issuance of a permit by the Affected State, or in conjunction with the issuance of such permit, Essroc shall file any applications necessary to incorporate the requirements of the permit into the Title V operating permit for the relevant Facility. Essroc shall not challenge the inclusion in any such permit of the Emission Limits expressly prescribed in this Consent Decree (including, where applicable, final 30-Day Rolling Average Emission Limits determined in accordance with Appendix A or B), 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 Essroc from challenging any more stringent Emission Limits should they be proposed for reasons independent of this Consent Decree.

39. As soon as practicable, but in no event later than one hundred twenty (120) Days after the establishment of any Emission Limits pursuant to Appendix A or B, as applicable, in the Consent Decree, Essroc shall submit applications to the appropriate permitting authority to incorporate all applicable Emission Limits, and any requirements and limitations, including those in Sections VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and VII (SO₂ 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 Essroc to the Affected State, Essroc shall cooperate with the appropriate permitting authority by promptly submitting all information that such permitting authority seeks following its receipt of the permit application. Upon issuance of such permit or in conjunction with such permitting by the Affected State, Essroc shall file any applications necessary to incorporate the requirements of that permit into the Title V operating permit of the appropriate Facility. Essroc shall not challenge the inclusion in any such permit of the Emission Limits expressly prescribed in this Consent Decree (including, where applicable, final 30-Day Rolling Average Emission Limits determined in accordance with Appendix A or B), 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 Essroc from challenging any more stringent Emission Limits should they be proposed for reasons independent of this Consent Decree.

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

41. In lieu of incorporating the terms of the Consent Decree directly into a permit issued under a SIP pursuant to Paragraphs 36 through 39, Essroc 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. Essroc 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.

42. When permits or SIP amendments are required as described in Paragraphs 36-39 and 41, Essroc shall complete and submit applications for such permits or SIP amendments to the appropriate authorities to allow sufficient time for all legally required processing and review of the permit application or application for a SIP amendment, including requests for additional information by the permitting authorities. Any failure by Essroc to submit a timely and complete permit application or application for a SIP amendment for any Kiln shall bar any use by Essroc of Section XIV (Force Majeure) of this Consent Decree, where a Force Majeure claim is based on permitting delays or delays associated with issuance of a the SIP amendment.

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

XI. REVIEW AND APPROVAL OF SUBMITTALS

44. After review of any document that is subject to approval 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.

45. If the submission is approved pursuant to Paragraph 44 above, Essroc 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 44(b) above, Essroc shall, upon written direction of U.S. EPA, after consultation with the Affected State, take all actions required by the approved portion of the 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 Essroc's right to dispute only the specified conditions or the disapproved portions, under Section XV of this Decree (Dispute Resolution). Conditional approvals or approvals in part, with respect to emission limit proposals under Appendix A, may include disapproval of emission limit proposals and approval of alternative emission limits as specified in Paragraph 24 of Appendix A and of Paragraph 14 of Appendix B.

46. If the submission is disapproved in whole or in part pursuant to Paragraph 44, Essroc 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, Essroc shall proceed in accordance with the preceding Paragraph.

47. Any stipulated penalties applicable to an original submission that is disapproved in whole or in part pursuant to Paragraph 44, as provided in Section XIII (Stipulated Penalties) of this Decree, shall continue to accrue during the period specified in Paragraph 46, 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 Essroc's obligations under this Decree, the stipulated penalties applicable to the original submission shall be due and payable notwithstanding any subsequent resubmission.

48. 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 Essroc to correct any deficiencies in accordance with Paragraph 46, or may themselves correct any deficiencies and seek stipulated penalties, subject to Essroc's right to invoke Dispute Resolution under Section XV of this Consent Decree.

XII. REPORTING REQUIREMENTS

49. Essroc shall submit the following reports as described in this Paragraph 49. Within 30 Days after the end of each half calendar year (*i.e.*, by January 30th, July 30th) after the Effective Date, for three full years, until termination of this Decree pursuant to Section XXIII (Termination), Essroc shall submit a semi-annual report to U.S. EPA and the Affected States for

the immediately preceding half calendar year period that shall contain the information described in this Paragraph 49(a)-(j). Thereafter, and until termination of this Decree pursuant to Section XXIII (Termination), Essroc shall submit, within 30 days after the end of each calendar year, an annual report to U.S. EPA and the Affected States for the immediately preceding calendar year period that shall contain the information described in this Paragraph 49(a)-(j).

- a. Identify any and all dates on which Essroc has installed, or describe the progress of installation of, each Control Technology required for each Kiln under Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO₂ Control Technology, Emission Limits, and Monitoring Requirements), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions;
- b. Identify any and all dates on which Essroc has completed installation of, or describe the progress of installation of, each CEMS required under Section VI.B (NO_x Continuous Emission Monitoring Systems) and Section VII.B (SO₂ Continuous Emission Monitoring Systems), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions;
- c. Identify any and all dates on which Essroc Retired the Bessemer Kilns;
- d. Provide all CEMS data collected for each Kiln, including an explanation of any periods of CEMS downtime together with any missing data for which Essroc applied missing data substitution procedures, under Section VI.B (NO_x Continuous Emission Monitoring Systems) and Section VII.B (SO₂ Continuous Emission Monitoring Systems);

- e. Demonstrate compliance with all applicable 30- Day Rolling Average Emission Limits in Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO₂ Control Technology, Emission Limits, and Monitoring Requirements) of this Consent Decree;
- f. Provide a complete description and status of all actions Essroc has undertaken to comply with the Appendix of this Consent Decree;
- g. Demonstrate compliance with any applicable 30-Day Rolling Average Emission Limits established under Appendix A or B of this Consent Decree;
- h. If applicable, describe the status of actions undertaken pursuant to Section IX (Prohibition on Netting Credits or Offsets from Required Controls) of this Consent Decree;
- i. Describe the status of permit applications and any proposed SIP revisions required under this Consent Decree; and
- j. Describe the status of any operation and maintenance work relating to activities required under this Consent Decree.

The semi-annual and annual reports 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.

50. If Essroc violates, or has reason to believe that it may violate, any requirement of this Consent Decree, Essroc shall notify the U.S. EPA and the Affected State of such violation and its likely duration, in writing, within ten Business Days of the Day Essroc first become aware of the violation, with an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation. Essroc shall investigate the

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

51. Whenever any violation of this Consent Decree, or of any applicable permits required under this Consent Decree, or any other event affecting Essroc'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, Essroc 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 Essroc 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.

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

53. Each report submitted by Essroc 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.

54. The reporting requirements of this Consent Decree do not relieve Essroc 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.

55. 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.

56. Essroc may also assert that information required to be provided under this Section is protected as "Confidential Business Information" under 40 C.F.R. Part 2. In such a situation, Essroc may submit the information to U.S. EPA and the Affected State as "Confidential Business Information," subject to the provisions of 40 C.F.R. Part 2. As to any information that Essroc seeks to protect as CBI, Essroc shall follow the procedures set forth in 40 C.F.R. Part 2 and any applicable State laws. No monitoring data or other data evidencing the amount or content of emissions from any Facility shall be considered as CBI or subject to any privilege.

XIII. STIPULATED PENALTIES

57. Essroc shall be liable for stipulated penalties to the United States and Affected State(s) for violations of this Consent Decree as specified in Table 5 below, unless excused under Section XIV (Force Majeure). A violation includes failing to perform any obligation required by the terms of this Decree, including any work plan or schedule approved under this Decree, according to all applicable requirements of this Decree and within the specified time schedules established by or approved under this Decree. Violation of an Emission Limit that is based on a 30-Day Rolling Average is a violation on every Day on which the average is based. Each

subsequent Day of violation of a 30-Day Rolling Average Emission Limit is subject to the corresponding penalty per Day as specified in Table 5 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, Essroc shall not pay a second or multiple 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 5

Consent Decree Violation	Stipulated Penalty
Failure to pay the civil penalty as specified in Section IV (Civil Penalty) of this Consent Decree.	\$7,500 for each Day
Failure to comply with a 30-Day Rolling Average Emission Limit for NO _x or SO ₂ or PM where the emissions are less than 5% in excess of the limits set forth in this Consent Decree.	\$1,500 for each Day during any 30-Day rolling period where the violation is less than 5% in excess of the Limit.
Failure to comply with a 30-Day Rolling Average Emission Limit for NO _x or SO ₂ or PM where the emissions are equal to or greater than 5% but less than 10% in excess of the limits set forth in this Consent Decree	\$3,000 for each Day during any 30-Day rolling period where the violation is equal to or greater than 5% but less than 10% in excess of the Limit.
Failure to comply with a 30-Day Rolling Average Emission Limit for NO _x or SO ₂ or PM where the emissions are equal to or greater than 10% in excess of the limits set forth in this Consent Decree	\$5,000 for each Day during any 30-Day rolling period where equal to or greater than 10% in excess of the Limit.

Failure to install or Commence Continuous Operation or Continuously Operate Control Technology at a Kiln	\$5,000 for each consecutive Day during the first 20 Days, \$10,000 for each consecutive Day for the next 40 Days, and \$37,500 for each consecutive Day thereafter
Failure to Retire any Kiln pursuant to the Consent Decree.	\$100,000 upon re-commencing Kiln Operation and \$37,500 for each 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 VIII of this Consent Decree	\$100,000 for the first Day upon re-commencing Kiln Operation and \$37,500 for each Day thereafter
Failure to apply for any permit or permit amendment or seek a SIP approval required by Section X (Permits)	\$1,000 for each Day for each such failure
Failure to install or operate a CEMS in conformance with the requirements of Section VI.B (NOx Continuous Emission Monitoring Systems) or Section VII.B (SO ₂ Continuous Emission Monitoring Systems), as applicable.	\$1,000 for each Day for each such failure
Failure to timely submit, modify, or implement, as approved, a report, plan, study, analysis, protocol, or other submittal required by this Consent Decree and Appendix A or B.	\$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

58. Subject to the provisions of Paragraph 57 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, Essroc shall pay 67% to the United States and 33% to the Affected State(s).

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

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

61. 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, Essroc shall pay accrued penalties determined to be owing, together with interest accruing from the 31st Day after the written demand in Paragraph 59, 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, Essroc shall pay all accrued penalties determined by the Court to be owing, together with interest accruing from the 31st Day after the written demand in Paragraph 59, 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, Essroc shall pay all accrued penalties determined to be owing, together with interest accruing from the 31st

Day after the written demand in Paragraph 59, within 15 Days of receiving the final appellate court decision.

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

Table 6

State	Payment Instructions
Pennsylvania	Commonwealth of Pennsylvania - Clean Air Fund Attn: Mark Wejkszner Air Quality Program Manager PA Department of Environmental Protection, 2 Public Square Wilkes-Barre, PA 18711
West Virginia	Air Pollution Education & Environmental Fund West Virginia Division of Air Quality Attn: John A. Benedict, Director 601 57th St. SE Charleston, WV 25304
Indiana	"Environmental Management Special Fund" Indiana Department of Environmental Management Cashier – Mail Code 50-10C 100 North Senate Avenue Indianapolis, IN 46204-2251
Puerto Rico	Puerto Rico Environmental Quality Board Pedro Nieves Miranda, Chairman Puerto Rico Environmental Quality Board PO BOX 11488 SAN JUAN , PR 00910 Att. Luis R Sierra Torres, Manager Air Quality Area

63. Essroc shall not deduct stipulated penalties paid under this Section in calculating its federal or state income tax.

64. If Essroc fails to pay stipulated penalties according to the terms of this Consent Decree, Essroc 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 Essroc's failure to pay any stipulated penalties.

65. Subject to the provisions of Section XVII of this Consent Decree (Effect of Settlement/Reservation of Rights), the stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the United States or an Affected State for Essroc'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, Essroc 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 92 and 93.

XIV. FORCE MAJEURE

66. "Force Majeure" (for purposes of this Consent Decree) is defined as any event arising from causes beyond the control of Essroc, that causes a delay or impediment to performance in complying with any obligation under this Consent Decree despite Essroc's best efforts to fulfill the obligation. The requirement that Essroc exercise best efforts to fulfill the obligation includes using best efforts to anticipate any potential Force Majeure event and best efforts to address the effects of any such event (a) as it is occurring and (b) after it has occurred.

to prevent or minimize any resulting delay to the greatest extent possible. Force Majeure does not include Essroc's financial inability to perform any obligation under this Consent Decree.

67. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, and which Essroc contends qualifies as an event of Force Majeure, Essroc shall provide notice orally or by electronic or facsimile transmission to the representatives of U.S. EPA and the Affected State(s) designated to receive notice pursuant to Section XIX (Notices) as soon as practicable but no later than seven (7) Business Days following the date Essroc first knew, or in the exercise of due diligence should have known, that the claimed Force Majeure event might cause a delay and give rise to a claim of Force Majeure. Essroc shall provide written notice of the event as soon as practicable, but in no event later than twenty-one (21) Business Days following the date when Essroc first knew that the event might cause a delay. The written notice shall explain and describe the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; and Essroc's rationale for attributing such delay to a Force Majeure event if it intends to assert such a claim. Essroc shall include with any written notice all available documentation supporting the claim that the delay was attributable to a Force Majeure. Essroc shall be deemed to know of any circumstance of which Essroc's Contractors knew or should have known.

68. Failure by Essroc to comply with the notice requirements of Paragraph 67 renders this Section voidable by U.S. EPA, as to the specific event for which Essroc has failed to comply with such notice requirement. If so voided, it shall be of no effect as to the particular event involved.

69. If U.S. EPA and the Affected State agree that the delay or anticipated delay is attributable to a Force Majeure event, the appropriate Parties may reach agreement and stipulate in writing to an extension of the required deadline(s) for all requirement(s) affected by the Force Majeure event for a period equivalent to the delay actually caused by the Force Majeure event, or such other period as may be appropriate in light of the circumstances. If such stipulation results in a material change to the terms of the Consent Decree, the stipulation shall be filed as a modification to the Consent Decree pursuant to Section XXII (Modification). An extension of the time for performance of the obligations affected by the Force Majeure event shall not, of itself, extend the time for performance of any other obligation. If the Parties do not reach agreement on the appropriate extension of any deadlines affected by a Force Majeure event, U.S. EPA and the Affected State will notify Essroc in writing of the length of the extension, if any, for performance of the obligations affected by the Force Majeure event. Essroc shall comply with the extended deadlines specified in the notice from U.S. EPA and the Affected State, subject to the provisions of Section XV (Dispute Resolution).

70. If U.S. EPA, after consultation with 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 Essroc in writing of its decision.

71. If Essroc elects to invoke the formal dispute resolution procedures set forth in Section XV (Dispute Resolution), it shall do so no later than forty-five (45) Days after receipt of U.S. EPA's and the Affected State's notice pursuant to Paragraph 69 or Paragraph 70, whichever applies, and shall first comply with the provisions for informal dispute resolution contained in Section XVI before proceeding to Formal Dispute Resolution. In any such proceeding in accordance with Formal Dispute Resolution Procedures, Essroc shall have the burden of

demonstrating that the delay or anticipated delay has been or will be caused by a Force Majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Essroc complied with the requirements of Paragraphs 66-67, above. If Essroc carries this burden, the delay at issue shall be deemed not to be a violation by Essroc of the affected obligation of this Consent Decree identified to U.S. EPA and the Court.

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

XV. DISPUTE RESOLUTION

73. 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, including, but not limited to, Section XIII (Stipulated Penalties) and Section XIV (Force Majeure). Essroc's failure to seek resolution of a dispute under this Section shall preclude Essroc from raising any such issue as a defense to an action by the United States or the Affected State(s) to enforce any obligation of Essroc arising under this Decree.

74. Informal Dispute Resolution for Emission Limit Setting Process. If Essroc invokes Dispute Resolution regarding a U.S. EPA established final alternative 30-Day Rolling Average Emission Limit, Essroc shall simultaneously initiate the process set forth in this Paragraph to identify and propose to U.S. EPA, pursuant to subparagraph (a) below, an independent contractor who will be tasked to analyze the Emission Limits established by U.S. EPA and proposed by Essroc and to provide, for the benefit of both U.S. EPA and Essroc, the

reports, analysis, and services identified in this Paragraph, below, by the specified deadlines. If U.S. EPA approves the independent contractor, Essroc shall hire and bear all costs associated with the contractor's work up to \$150,000, and shall provide the contractor access to all 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 Statement of Work (SOW) requirements described in Paragraph 74(b) are expected to be higher than \$150,000, Essroc and U.S. EPA will, confer on ways to limit or modify the nature and/or scope of the work and to provide a useful report without exceeding the expenditure limitation. Essroc shall have no obligation to exceed the expenditure limitation in this Paragraph, but may agree to do so in an individual instance. 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 Essroc in any capacity. To implement the requirements of this Paragraph 74, Essroc shall:

- a. 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 XIX (Notice). If U.S. EPA disapproves of the contractor, Essroc 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 Essroc the Contractor to be employed. Essroc shall enter into a contract with the Contractor, containing the Statement of Work requirements in Paragraph 74(b), below within 7 days of U.S. EPA's approval or final identification of the Contractor.

- b. Provide, as part of the contract, to the Contractor, a Statement of Work (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 Essroc, with a copy to the Affected State, a report on the appropriate 30-day Rolling Average Emission Limit, consistent with the methodology set forth in and information collected through Appendix A ("contractor report"), based upon the injection rates and the operational parameters approved as part of the Optimization Report required by Paragraph 12 of Appendix A. The conclusions of this report shall be based on all of the information and data collected during the baseline, Optimization and Demonstration Periods, as well as any additional site-specific information available to the contractor. The report will 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;
 - iii. Make available to U.S. EPA and any Affected State any and all data evaluated, and reveal all communications with Essroc 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. The SOW shall make clear that the contractor may discuss their analysis, findings and the content of their report with U.S. EPA and the Affected State 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.
 - d. If the parties are unable to reach agreement on a final 30-Day Rolling Average Emission Limit within 20 days after receipt of the contractor report by U.S. EPA, Essroc may request formal dispute resolution under Paragraph 76 of this Consent Decree. The contractor report shall be part of the Dispute Resolution record in any formal dispute proceedings under this Consent Decree.

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

76. Formal Dispute Resolution. Essroc 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) in accordance with Section XIX (Notice), a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but may not necessarily be limited to, any factual data, analysis, or opinion supporting Essroc's position and any supporting documentation relied upon by Essroc.

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

78. Essroc may seek judicial review of the dispute by filing with the Court, and serving on the United States and the Affected State(s), in accordance with Section XIX of this Consent Decree (Notices), a motion requesting judicial resolution of the dispute. The motion shall contain a written statement of Essroc'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.

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

80. Standard of Review. Except as otherwise provided in this Consent Decree, the Court shall decide all disputes pursuant to applicable principles of law. The disputing parties shall state their respective positions as to the applicable standard of law for resolving the particular dispute in the Parties' initial filings with the Court under Paragraphs 77 and 78 of this Consent Decree. Except as otherwise provided in this Consent Decree, in any dispute brought under this Section XV (Dispute Resolution), Essroc shall bear the burden of demonstrating that its position complies with this Consent Decree.

81. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of Essroc under this Consent Decree, unless and until final resolution of the dispute so provides. Stipulated penalties with respect to the disputed matter shall continue to accrue from the first Day of noncompliance, but payment shall be stayed pending resolution of the dispute and in accordance with any extension or modification of the schedule for completion of work as provided in Paragraph 69. If Essroc does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XIII (Stipulated Penalties).

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

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

84. Issuance, renewal, modification, denial or revocation of a permit and issuance of orders or other actions by State agencies are not subject to dispute resolution under this Consent Decree, but shall be subject to challenge under applicable State law.

XVI. INFORMATION COLLECTION AND RETENTION

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

- a. monitor the progress of activities required under this Consent Decree;
- b. verify any data or information submitted to the United States or the Affected State(s) in accordance with the terms of this Consent Decree;
- c. obtain samples and, upon request, splits of any samples taken by Essroc or its representatives, Contractors, or consultants;
- d. obtain copies of any documents, including photographs and similar data, relating to activities required under this Consent Decree; and
- e. assess Essroc's compliance with this Consent Decree.

86. Until five years after the termination of this Consent Decree, Essroc shall retain in electronic form, and shall instruct its Contractors and agents to preserve in electronic form, all non-identical copies of all documents and records in their or their Contractors' or agents' possession or control, or that come into their or their Contractors' or agents' possession or control, and that relate in any manner to Essroc'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(s), Essroc shall provide copies of any documents, records, or other information required to be maintained under this Paragraph.

87. At the conclusion of the information-retention period provided in Paragraph 86 above, Essroc shall notify the United States and the Affected States at least 90 Days prior to the destruction of any documents, records, or other information subject to the requirements of Paragraph 86 and, upon request by the United States or the Affected States, Essroc shall deliver any such documents, records, or other information to U.S. EPA or the Affected States. Essroc may assert that certain documents, records, or other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Essroc 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 Essroc. 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.

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

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

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

XVII. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

90. Liability Resolution. With respect to the emissions of NO_x and SO₂ from the Kilns identified in Paragraph 7(v) entry of this Consent Decree shall resolve all civil liability of Essroc to the United States and the Affected States for violations of the following requirements resulting from or arising out of a construction or modification that commenced prior to the Date of Lodging of the Consent Decree:

- a. The PSD requirements at Part C of Subchapter I of the Act, 42 U.S.C. § 7475, and the regulations promulgated thereunder at 40 C.F.R. §§ 52.21 and 51.166; “Plan Requirements for Nonattainment 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 Essroc'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 the Kilns identified in Paragraph 7(v) that commenced prior to the Date of Lodging.

91. Notwithstanding the resolution of liability in Paragraph 90 nothing in this Consent Decree precludes the United States and/or the Affected States from seeking from Essroc injunctive relief, penalties, or other appropriate relief for violations by Essroc of the regulatory requirements identified in Paragraph 90 resulting from (1) construction or modification that commenced prior to the Date of Lodging of the Consent Decree, if the resulting violations do not relate to the Kilns or do not relate to NO_x or SO₂ or (2) any construction or modification that commences after the Date of Lodging of the Consent Decree.

92. 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 90. 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 Essroc's Facilities, whether related to the violations addressed in this Consent Decree or otherwise.

93. 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 Essroc's violations, Essroc 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 90 of this Section.

94. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. Essroc is responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits; and Essroc'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 Essroc'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.

95. This Consent Decree does not limit or affect the rights of Essroc 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 Essroc, except as otherwise provided by law.

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

XVIII. COSTS

97. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States and any Affected State shall be entitled to collect the costs

(including attorneys' fees) incurred in any action necessary to collect any portion of the civil penalty or any stipulated penalties due but not paid by Essroc.

XIX. NOTICES

98. 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:

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

And

For all submissions referring to the San Juan Facility:
Chief, Air Compliance Branch
USEPA Region 2
290 Broadway- 21st Floor
New York, NY 10007-1866

For all submissions referring to the Bessemer, Nazareth, and Martinsburg Facilities:
Chief, Air Enforcement Branch
U.S. EPA Region III
1650 Arch Street (3PM52)
Philadelphia, PA 19103-2029

For all submissions referring to the Speed and Logansport Facilities:
George Czerniak
U.S. EPA Region V
77 W. Jackson Blvd. (AE-17J)
Chicago, IL 60604

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. 90-5-2-1-09608

For all submissions referring to the Bessemer or Nazareth Facilities, to the Commonwealth of Pennsylvania:

Mark Wejkszner
Air Quality Program Manager
PA Department of Environmental Protection,
2 Public Square
Wilkes-Barre, PA 18711

For all submissions referring to the Martinsburg Facility, to the State of West Virginia:

Jesse Adkins, Assistant Director, Compliance & Enforcement Section
West Virginia Division of Air Quality
601 57th St. SE
Charleston, WV 25304

For all submissions referring to the Speed and Logansport Facilities, to the State of Indiana:

Indiana Department of Environmental Management
Office of Air Quality
Chief, Air Compliance and Enforcement Branch
100 N. Senate Ave.
Mail Code 61-53 IGCN 1003
Indianapolis, IN 46204-2251

For all submissions referring to the San Juan Facility, to the Commonwealth of Puerto Rico:

Puerto Rico Environmental Quality Board
Pedro Nieves Miranda, Chairman
Attn: Luis R Sierra Torres, Manager Air Quality Area
PO Box 11488
San Juan, PR 00910

To Essroc:

Silvio Panseri (or successor)

President and Chief Operating Officer
Essroc Cement Corp.
3251 Bath Pike
Nazareth, PA.18064

Gordon C. Andrews Esq. (or successor)
General Counsel
Essroc Cement Corp.
3251 Bath Pike
Nazareth, PA.18064

Gary A. Molchan (or successor)
Vice President Environmental Affairs
Essroc Cement Corp.
3251 Bath Pike
Nazareth, PA.18064

Philip J. Schworer, Esq.
Outside Counsel to Essroc Cement Corp.
Frost Brown Todd LLC
7310 Turfway Rd.
Florence, KY 41042

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

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

XX. EFFECTIVE DATE

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

XXI. RETENTION OF JURISDICTION

102. The Court shall retain jurisdiction over this case until termination of this Consent Decree, for the purpose of resolving disputes arising under this Decree or entering orders

modifying this Decree, pursuant to Sections XV (Dispute Resolution) and XXII (Modification), or effectuating or enforcing compliance with the terms of this Decree.

XXII. MODIFICATION

103. The terms of this Consent Decree, including the Appendix, may be modified only by a subsequent written agreement signed by any Affected State(s), the United States, and Essroc, except as provided in Paragraph 104. Where the modification constitutes a material change to this Decree, it shall be effective only upon approval by the Court. If the Effective Date of this Consent Decree is after January 30, 2012, the Parties will negotiate in good faith an extension of up to one year for any Dates of Commencement of Continuous Operation under Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) or VII (SO₂ Control Technology, Emission Limits, and Monitoring Requirements). Such agreement, if reached by the Parties, shall be in writing and shall be submitted by the Parties on joint motion to the Court as a modification of this Consent Decree.

104. Any disputes concerning modification of this Decree shall be resolved pursuant to Section XV of this Decree (Dispute Resolution), provided, however, that, instead of the burden of proof provided by Paragraph 80, the Party seeking the modification bears the burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

XXIII. TERMINATION

105. Termination as to an Individual Facility. After Essroc has paid the civil penalties and any stipulated penalties due under this Consent Decree, and satisfied the requirements of Sections VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements), VII (SO₂ Control Technology, Emission Limits, and Monitoring Requirements), IX (Prohibition on

Netting Credits or Offsets from Required Controls) and X (Permits) of this Decree and has maintained operation of any Control Technology as required by this Consent Decree for a period of thirty-six consecutive months at an individual Facility, Essroc may serve upon the United States and the Affected State a Request for Termination, stating that Essroc 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.

106. Complete Termination. After Essroc has satisfied the requirements of Sections VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements), VII (SO₂ Control Technology, Emission Limits, and Monitoring Requirements), IX (Prohibition on Netting Credits or Offsets from Required Controls) and X (Permits) of this Decree and has maintained operation of all Control Technology as required by this Consent Decree for a period of thirty-six consecutive months 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, Essroc may serve upon the United States and the Affected States a Request for Termination, stating that Essroc 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.

107. 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, Essroc may invoke Dispute Resolution under Section XV of this Decree. However, Essroc shall not seek Dispute Resolution

of any dispute regarding termination under Section XXIII of this Consent Decree until sixty (60) Days after service of its Request for Termination.

XXIV. PUBLIC PARTICIPATION

108. 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. Essroc 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 Essroc in writing that it no longer supports entry of the Decree.

XXV. SIGNATORIES/SERVICE

109. 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 Essroc and the State Plaintiffs certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

110. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis. Essroc 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. Essroc 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 Essroc with respect to all matters arising under or relating to this Consent Decree. All Parties agree that Essroc need not file an answer or otherwise respond to the Complaint and Complaint in Intervention in this action unless or until the Court expressly declines to enter this Consent Decree.

XXVI. INTEGRATION

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

XXVII. FINAL JUDGMENT

112. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the United States, the Commonwealth of Pennsylvania, the State of Indiana, the State of West Virginia, the Commonwealth of Puerto Rico, and Essroc. The Court finds that there is no just reason for delay and therefore enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

XXVIII. APPENDIX

113. The following Appendix are attached to and incorporated as part of this Consent Decree:

"Appendix A" contains the Control Technology Demonstration Requirements that apply to each Kiln under this Decree subject to those requirements.

"Appendix B" contains the requirements to be included in the SCR Pilot Study and Full Scale Demonstration.

"Appendix C" contains the requirements of the Environmental Mitigation Projects.

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

Dated and entered this ____ Day of _____, _____.

UNITED STATES DISTRICT COURT JUDGE
Western District of Pennsylvania

FOR PLAINTIFF UNITED STATES OF AMERICA:

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

Date: _____

ELLIOT ROCKLER
Trial Attorney
Environmental Enforcement Section
Environment and Natural Resources Division
United States Department of Justice
P.O. Box 7611
Washington, D.C. 20044-7611

Date: _____

DAVID J. HICKTON
United States Attorney
United States Attorneys' Office
U.S. Post Office and Court House
700 Grant Street, Suite 4000
Pittsburgh, PA 15219

Date: _____

PAUL E. SKIRTICH
Assistant United States Attorney
United States Attorneys' Office
U.S. Post Office and Court House
700 Grant Street
Pittsburgh, PA 15219

Date: _____

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

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

Date: _____

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

Date: _____

SEEMA KAKADE
Attorney-Advisor, Air Enforcement Division
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency

Date: _____

Signature Page for *United States of America et al. v. Essroc Cement Corp adv.*, Consent Decree

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

JUDITH ENCK
Acting Regional Administrator
United States Environmental Protection Agency
Region 2

Date: _____

JOSEPH SIEGEL
Attorney-Adviser
United States Environmental Protection Agency
Region 2

Date: _____

Signature Page for *United States of America et al. v. Essroc Cement Corp adv.*, Consent Decree

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

SHAWN M. GARVIN
Regional Administrator
United States Environmental Protection Agency
Region 3

Date: _____

J. ROBERT STOLTZFUS
Attorney-Advisor
United States Environmental Protection Agency
Region 3

Date: _____

Signature Page for *United States of America et al. v. Essroc Cement Corp adv.*, Consent Decree

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

SUSAN HEDMAN
Regional Administrator
United States Environmental Protection Agency
Region 5

Date: _____

SUSAN PERDOMO
Regional Counsel
United States Environmental Protection Agency
Region 5

Date: _____

Signature Page for *United States of America et al v. Essroc Cement Corp adv.*, Consent Decree

FOR THE COMMONWEALTH OF PENNSYLVANIA:

Michael Bedrin, Regional Director
Commonwealth of Pennsylvania
Department of Environmental Protection
Northeast Regional Office

Date: _____

Sean Robbins, Assistant Counsel
Commonwealth of Pennsylvania
Department of Environmental Protection
Northeast Regional Office

Date: _____

Signature Page for *United States of America et al v. Essroc Cement Corp adv.*, Consent Decree

FOR THE STATE OF INDIANA:

Thomas W. Easterly
Commissioner
Indiana Department of Environmental Management

Date: _____

As to form and legality:

Gregory F. Zoeller
Indiana Attorney General

Patricia Orloff Erdmann
Chief Counsel for Litigation
Office of the Attorney General
Indiana Government Center South
Indianapolis, Indiana

Date: _____

Signature Page for *United States of America et al v. Essroc Cement Corp adv.*, Consent Decree

FOR THE STATE OF WEST VIRGINIA:

John A. Benedict, Director
Division of Air Quality
West Virginia Department of Environmental Protection

Date: _____

Sarah J. Surber
Associate Counsel
Office of Legal Services
West Virginia Department of Environmental Protection

Date: _____

Signature Page for *United States of America et al v. Essroc Cement Corp adv.*, Consent Decree

FOR THE COMMONWEALTH OF PUERTO RICO

Pedro Nieves Miranda, Chairman
Puerto Rico Environmental Quality Board
San Juan, Puerto Rico

Date: _____

Signature Page for *United States of America et al v. Essroc Cement Corp adv.*, Consent Decree

FOR DEFENDANT ESSROC CEMENT CORP:

Silvio Panseri
President and Chief Operating Officer
Essroc Cement Corp.
3251 Bath Pike
Nazareth, PA.18064

Date: _____

Gordon C. Andrews Esq.
General Counsel
Essroc Cement Corp.
3251 Bath Pike
Nazareth, PA.18064

Date: _____

The following is the name and address of Defendant Essroc Cement Corp's agent for service pursuant to Paragraph 110.

Philip J. Schworer, Esq.
Outside Counsel to Essroc Cement Corp.
Frost Brown Todd LLC
7310 Turfway Rd.
Florence, KY 41042

CONSENT DECREE APPENDIX
United States of America et al v. Essroc Cement Corp adv.

CONSENT DECREE APPENDIX A
United States of America et al v. Essroc Cement Corp adv.
Control Technology Demonstration Requirements

I. Scope and Applicability

1. Essroc shall comply with the requirements contained in this Appendix A in proposing and establishing 30-Day Rolling Average Emission Limits for Nitrogen Oxide ("NO_x") and Sulfur Dioxide ("SO₂") for Martinsburg (for SO₂), San Juan (for NO_x), and at Logansport Kiln 1 and 2 (for NO_x determined based on SNCR). The kilns subject to this Appendix shall be referred to individually as "Demonstration Kiln" or collectively as "Demonstration Kilns." Other terms have the same meaning in this Appendix A as in the Consent Decree unless otherwise identified.
2. The Demonstration Kilns include kilns of varying type, age, design and operating capacities. Raw materials employed in the Demonstration Kilns vary substantially. Fuels used in the Demonstration 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. Demonstration Kilns will be limited to those fuels and the amounts allowed by their various operating permits.
3. Supporting data required to be submitted under this protocol may contain information relative to operation of any Demonstration Kiln and production data that Essroc considers to be proprietary. In such a situation, Essroc may submit the information to U.S. EPA under a claim of confidential business information (CBI) subject to the provisions of 40 C.F.R. Part 2, and shall comply with all procedures and requirements of 40 C.F.R. Part 2 in so doing.
4. Essroc shall take the following steps to establish 30-day Rolling Average Emission Limits for NO_x and SO₂ at each Demonstration Kiln:
 - a. **Design Report:** With the exception of the Martinsburg Kiln where the SO_x Control Technology has already been installed during the course of negotiations of this Consent Decree, Essroc shall prepare and submit to U.S. EPA a Design Report for each required Control Technology for NO_x and SO₂, based on similar NO_x and SO₂ control technology installations and the control requirements of this Consent Decree. In accordance with Section II of this Appendix, if Essroc chooses an alternate reagent for the existing Control Technology, it shall first prepare and submit a Design Report;
 - b. **Baseline Data Collection:** Prior to initiating operation of any Control Technology, Essroc shall either: (i) collect new baseline emissions and operational data for a 180-day period; or (ii) obtain U.S. 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 and shall comply with Section III of this Appendix.

- c. **Startup and Optimization Period:** Following completion of installation of each Control Technology, Essroc shall undertake a startup and optimization program for each Control Technology in accordance with Section IV of this Appendix;
- d. **Demonstration Program:** Upon completion of the startup and optimization program specified above, Essroc shall operate each Control Technology (except for SNCR installed at Logansport which shall follow timelines established in Paragraph 19(c) of the Consent Decree) in an optimized manner for a period of 300 Operating Days for the purpose of establishing a 30-Day Rolling Average Emission Limit;
- e. **Demonstration Report:** Essroc shall prepare and submit to U.S. EPA for approval, a Final Report following completion of the Demonstration Program Period for each Control Technology used to establish 30-Day Rolling Average Emission Limits.

II. Design Report

- 5. Essroc shall submit to U.S. EPA for approval a Design Report for each Control Technology. The Design Report will form the basis for any permit application which may be required under state or federal law. U.S. EPA shall review and comment on the Design Report within 45 days of receipt. Essroc shall respond to any comments received within 30 days of receipt. The Design Reports shall comply with the following minimum requirements and shall be subject to the review requirements of Section XI (Review and Approval of Submittals) of the Consent Decree.
 - a. **Selective Non-Catalytic Reduction ("SNCR"):** Essroc shall design the SNCR system to deliver the proposed reagent to the exhaust gases at the rate of at least 1.2 mols of reagent to 1.0 mols of NO_x (1.2:1 molar ratio). The system shall be designed to inject Ammonia into the kiln exhaust gas stream. Essroc 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.
 - b. **Dry Scrubber System ("Dry Scrubber"):** Essroc shall design the Dry Scrubber to deliver alkaline reagent to the exhaust gases at the rate of at least 3.0 mols of reagent to 1.0 mols of SO_2 (3:1 molar ratio). Essroc shall specify in the Design Report the reagent injection location, other modifications and design parameters

based on maximum emission reduction effectiveness, good engineering judgment, vendor standards, available data, and kiln operability.

III. Baseline Data Collection

6. Prior to commencement of Continuous Operation of the required Control Technology, Essroc shall either: (a) collect new baseline emissions and operational data for a 180-day period; or (b) obtain U.S. EPA approval pursuant to Section XI (Review and Approval of Submittals) of the Consent Decree of existing baseline emissions and operational data collected from a period of time prior to the initiation of a baseline collection period. Such baseline emissions and operational data shall include the data required by Paragraph 7 below for periods of time representing the full range of normal kiln operations including changes in raw mix chemistry due to differing clinker manufacture, changes in production levels. Essroc shall select the data collection period to ensure the baseline data collection period will be representative of the normal Kiln Operation.
7. Within 45 Days following the completion of the baseline data collection period, Essroc shall submit to U.S. EPA and the Affected State the baseline data collected during the baseline data collection period. The baseline data will include the following information either derived from available direct monitoring or as estimated from monitored or measured data:
 - a. Kiln flue gas temperature at the inlet to the fabric filter or electrostatic precipitator as applicable or at the Kiln stack (daily average);
 - b. Kiln production rate in tons of clinker (daily total);
 - c. Raw material feed rate in tons (daily total);
 - d. Type and percentage of each raw material used and the total feed rate (daily);
 - e. NO_x, SO₂ and CO concentrations (dry basis) and mass rates for each Kiln (daily average for concentrations and daily totals for mass rates) as measured at the Kiln stack gas analyzer location;
 - f. Flue gas volumetric flow rate (daily average in dry acfm);
 - g. Pyritic sulfur in feed (calculated to a daily average percentage);
 - h. Feed burnability (C3S) (at least once daily);
 - i. Temperatures near the burning zone;
 - j. Kiln fuel feed rate and type of fuel by weight or total heat input (daily average);
 - k. Fuel distribution, if fuel is injected at more than one location, how much is injected at each location (daily average);

- l. Primary (and secondary and tertiary, where available) air rate into the Kiln, preheater and/or precalciner (as applicable) or blower/fan settings;
 - m. Documentation of any Startup, Shut Down, or Malfunction events; and
 - n. An explanation of any gaps in the data or missing data.
8. Essroc shall submit the baseline data to U.S. EPA and the Affected State in an electronic format and shall explain the reasons for any data not collected for each of the parameters listed in the previous paragraph of this Appendix A. Essroc shall submit all data in a format consistent with and able to be manipulated by Microsoft Excel.

IV. Startup and Optimization Period

9. Essroc shall install and begin operating the Control Technologies according to the requirements of Section VI and VII of the Consent Decree. Essroc shall Commence Operation of each Control Technology in accordance with the final Design Report by adding reagent to the SNCR system and/or by combining reagent and kiln gases through the Dry Scrubber.
10. Following completion of the installation of the control technologies, Essroc shall commence continuous operation of the Control Technology after a shakedown period not to exceed 90 days, in accordance with the Optimization Protocol described in Paragraph 11 of this Appendix A. Essroc will commence optimization of each Control Technology immediately upon completion of the shakedown period. The Optimization Period will be conducted in accordance with the approved Optimization Protocol and shall last no longer than 150 operating days.
11. Not later than 90 Days prior to the commencement of the optimization of the Control Technology, Essroc will submit to U.S. EPA a protocol for optimizing each Control Technology ("Optimization Protocol") to minimize emissions of NO_x and SO₂ to the greatest extent practicable. U.S. EPA shall review and comment on the Protocol within 45 days of receipt and Essroc 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 Control Technology operating parameters on the rate of emission reduction achieved by each applicable Control Technology and shall contain:
 - a. The steps taken to commence Continuous Operation of the Control Technology;
 - b. The initial reagent injection rate (as a molar ratio of the average pollutant concentration calculated during the baseline period) for each Control Technology;
 - c. A description of all sampling procedures that will be undertaken during the optimization of each Control Technology;
 - d. Detailed description of the plan to increase the reagent injection rate for each Control Technology. At a minimum, Essroc shall test SNCR at three molar ratios

of 0.75, 1.0, and 1.2, and shall test the Dry Scrubber at three molar ratios of 1.0, 2.0 and 3.0;

- e. The factors that will determine the maximum reagent injection rates and pollutant emission rates for each Control Technology (including maintenance of Kiln productivity and product quality). One factor that shall determine the maximum reagent injection rate for the SNCR shall be to maintain ammonia slip to a level below 10 ppm;
 - f. Explanation of how any observed synergistic effects on Kiln emissions, Kiln Operation or product quality from Control Technologies for NO_x, SO₂ will be evaluated;
 - g. Evaluation of the cost effectiveness of the incremental addition of reagent(s) and any incremental reduction in emissions of an air contaminant; and
 - h. A detailed protocol for evaluating SNCR operation and reagent injection rates with respect to alternate fuel scenarios for those Demonstration Kilns where alternate fuels are permitted.
12. Within 30 Days following the optimization period for each Control Technology at each Demonstration Kiln Essroc shall provide to U.S. EPA an Optimization Report demonstrating conformance with the optimization protocol for the Control Technology and establishing the operating parameters for the Control Technology determined under the Optimization Protocol. Essroc shall include in the report a discussion of any problems encountered with the operation of the Control Technology and the impact of the Optimization on emissions. U.S. EPA shall review and approve the Optimization Report including the optimized injection rate for each Control Technology within 45 Days of receipt of the Optimization Report and Essroc shall respond to U.S. EPA within 30 Days.
13. Except as otherwise provided in this Paragraph and in Paragraph 14, below, a Dry Scrubber or SCNR for an Demonstration Kiln shall be deemed to be optimized if the Optimization Report demonstrates that the Dry Scrubber or SNCR during periods of normal operation has achieved the percentage reduction consistent with its maximum design rate identified in the Design Report approved pursuant to Section II of this Appendix A.
14. Notwithstanding the provisions of Paragraph 13 of this Appendix A, a Control Technology for a Demonstration Kiln shall be deemed to be optimized at a lower percentage reduction in the rate of emissions than that identified in Paragraph 13 if the Optimization Report demonstrates that, during periods of normal operation, a higher rate of emission reduction or operation cannot be sustained without creating a meaningful risk of impairing product quality, impairing kiln system reliability or impairing compliance with then applicable emission requirements or if the Control Technology cannot sustain operation at design values.

15. During the Optimization Period, Essroc, to the extent practicable, shall operate the Control Technology in a manner consistent with good air pollution control practice for minimizing emissions. Essroc will adjust its optimization of a 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_x or SO₂. In the event Essroc determines, prior to the expiration of 150 operating days, that its ability to optimize the Control Technology will be affected by potential impairments to product quality, kiln system reliability or increased emissions of other pollutants, then Essroc shall promptly advise U.S. EPA of this determination, and include these considerations as part of its recommendation in its Optimization Report. In the event that Essroc determines, prior to the expiration of 150 operating days that the Control Technology has been optimized, Essroc shall promptly advise U.S. EPA of this determination.

V. Control Technology Demonstration Period

16. The Demonstration Period shall commence within 7 days after Essroc's receipt of the final approval by U.S. EPA of the Optimization Report. During the Demonstration Period, Essroc shall operate each Control Technology for a period of 300 Operating Days consistent with the operating parameters determined during the Optimization Period for the Control Technology and identified in the approved Optimization Report.
17. If operation of an Demonstration Kiln is disrupted by excessive startups and shutdowns during the Demonstration Period, Essroc may request or U.S. EPA may decide to extend the Demonstration Period. U.S. EPA shall grant or deny any request and shall state the amount the time that the Demonstration Period will be extended is subject to the Section XV (Dispute Resolution) provisions of this Consent Decree. Essroc may not suspend Demonstration Period data collection until and unless U.S. EPA has granted the request.
18. If evidence arises during the Demonstration Period that product quality, kiln system reliability, or compliance with an emission limitation or standard is impaired by reason of longer term operation of a Control Technology in a manner consistent with the parameters identified in the Optimization Report, then Essroc may, upon notice to, and approval by, U.S. EPA, temporarily modify the manner of operation of the Facility process or the Control Technology to mitigate the effects and request that U.S. EPA suspend or extend the Demonstration Period for further technical evaluation of the effects of a process optimization or Control Technology or permanently modify the manner of operation of the Control Technology to mitigate the effects. U.S. EPA's decision in response to any such Essroc request is subject to the Section XV (Dispute Resolution) provisions of this Consent Decree.
19. During the Demonstration Period, Essroc shall collect the same data as required in Paragraph 11 of this Appendix A. The Demonstration Report shall include the data collected as required in this Paragraph.
20. At least every 3 months during the Demonstration Period, Essroc shall submit a periodic report to U.S. 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

11 of this Exhibit. 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.

21. Within 60 Days following completion of the Demonstration Period for each Control Technology, Essroc shall submit a Demonstration Report to U.S. EPA, based upon and including all of the data collected during the Demonstration Period that identifies proposed 30-Day Rolling Average Emission Limits for the appropriate pollutant (NO_x and/or SO₂). Each 30-Day Rolling Average Emission Limit for NO_x and SO₂ shall be based upon an analysis of CEMS data and clinker production data collected during the Demonstration Period, while the process and Control Technology parameters were optimized in determining the proposed final Emission Limit(s) achievable for the Demonstration Kiln. 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, Essroc shall provide an explanation in the Demonstration Report(s) for any data excluded from the analyses. In any event, Essroc shall include all data required to be collected during the Demonstration Period in the Final Demonstration Report(s).
22. Essroc shall propose 30-Day Rolling Average Emission Limits for NO_x and SO₂ applicable to each Kiln, in the Demonstration Report(s) 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:

$X = \mu + 1.65\sigma$ where:

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

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

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

following manner:

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

23. Notwithstanding Paragraphs 21 and 22 of this Appendix A, in no event shall the final Emission Limits proposed in the Demonstration Report(s), be greater than as those limits specified in Paragraphs 18, 19, and 25 of the Consent Decree.
24. U.S. EPA shall either approve the proposed final 30-day Rolling Average Emission Limit or establish an alternative final 30-day Rolling Average Emission Limit. If U.S. EPA establishes an alternative final 30-day Rolling Average Emission Limit, Essroc will begin to meet this final 30-day Rolling Average Emission Limit within 30 days of receipt of

U.S. EPA's notice unless it invokes the Section XV (Dispute Resolution) provisions of this Consent Decree within that time by sending a Written Notice of Dispute in accordance with Section XIX (Notice). If Essroc invokes Dispute Resolution, it shall follow the procedures set forth in Paragraph 74 (Informal Dispute Resolution for Emission Limit Setting Process) to hire an independent contractor to review and make a non-binding recommendation regarding the appropriate final Emission Limit. During any dispute resolution process, Essroc shall comply with the proposed final 30-day Rolling Average Emission Limit as proposed by Essroc in Paragraph 22 of this Appendix.

CONSENT DECREE APPENDIX B
United States of America et al v. Essroc Cement Corp adv.
SCR Pilot Study and Full-Scale Demonstration

I. Scope and Applicability

1. Essroc shall comply with this Appendix B to prepare the SCR Pilot Report and submit the Demonstration Report as required by Paragraph 19 of the Consent Decree.
2. Information required to be submitted under this Appendix B may include information that Essroc may consider to be proprietary. In such a situation, Essroc may submit the information to U.S. EPA and the Affected State under a claim of "Confidential Business Information," subject to the provisions of 40 C.F.R. Part 2, and shall comply with all with all procedures and requirements of 40 C.F.R. Part 2 in so doing.

II. Pilot Study

3. Essroc shall design, or contract with a Contractor to design a pilot-scale *in situ* Selective Catalytic Reduction (SCR) system in order to evaluate the system performance at the Logansport cement kilns. The system shall be designed to provide Essroc with the information necessary to evaluate the SCR for future use at the Logansport facility. The system will be designed to reduce NOx emissions as much as possible but at a minimum, the SCR will be designed to reduce NOx emissions by 80%. The system may also be designed to employ features shown to be successful in other industries, such as a sacrificial catalyst layer to address poisons, on-line soot blowing to address pluggage and deactivation, and temperature monitors, as well as other features deemed appropriate by the system designer to ensure successful operation of the SCR.
4. Essroc shall route a slipstream of offgas from the Logansport Kiln 1 to a pilot-scale SCR system. Essroc will operate this SCR for a period of at least 4 months ("the test period") and shall attempt to continuously reduce emissions of NOx to the greatest extent feasible while controlling ammonia slip to a level below 10 ppm.
5. At the conclusion of the test period, Essroc shall evaluate the system performance based on the below criteria in this Paragraph 5 of this Appendix B.
 - Emission reductions of NOx
 - Observed deactivation or poisoning of catalyst in the SCR
 - Ammonia usage
 - Adverse environmental consequences related to the use of the SCR
 - Anticipated and observed lifetime of the catalyst
 - Anticipated or observed space velocity of the system

III. Report

6. By July 31, 2013, Essroc shall submit a report summarizing the results of the evaluation in which it shall determine whether application of SCR was successful based on the criteria listed in Paragraph 5 of this Appendix. ("Pilot Study report") The evaluation report shall be subject to the review and approval by U.S. EPA.

7. If, based on Essroc's evaluation report and U.S. EPA's concurrence, the parties determine that the system was successful, Essroc shall install and continuously operate full-scale SCR systems on both Logansport Kiln 1 and Logansport Kiln 2 subject to the requirements of Paragraph 19 of the Consent Decree.

8. If, based on Essroc's evaluation report and U.S. EPA's concurrence, the parties determine that the system was not successful, then Essroc will comply with Paragraph 19 of the Consent Decree and shall begin the process of designing and installing SNCR systems on both Logansport Kilns 1 and 2.

IV. SCR Demonstration Period

9. The SCR Demonstration Period shall commence no later than the date specified in Paragraph 19 of the Consent Decree. During the SCR Demonstration Period, Essroc shall operate each SCR for a period of at least 140 Operating Days consistent with the operating parameters determined during the Pilot Study. Essroc shall also operate the SCR to reduce emissions as much as practical without causing non-compliance with any other emission limit or impairment of product quality.

10. If evidence arises during the SCR Demonstration Period that product quality, kiln system reliability, or compliance with an emission limitation or standard is impaired by reason of longer term operation of the SCR, then Essroc may, upon notice to, and approval by, U.S. EPA, temporarily modify the manner of operation of the Facility process or the SCR to mitigate the effects. U.S. EPA's decision in response to any such Essroc request is subject to the Dispute Resolution provisions of this Consent Decree.

11. During the SCR Demonstration Period, Essroc shall collect the same data as required in Paragraph 11 of Appendix A. The SCR Demonstration Report shall include the data collected as required in Paragraph 12 of this Appendix B.

12. According to the requirements of Paragraph 19 of the Consent Decree, Essroc shall submit a Demonstration Report to U.S. EPA, based upon and including all of the data collected during the SCR Demonstration Period that identifies proposed 30-Day Rolling Average Emission Limit for NO_x. Each 30-Day Rolling Average Emission Limit shall be based upon an analysis of CEMS data and clinker production data collected during the SCR Demonstration Period. Essroc shall provide an explanation in the Demonstration Report(s) for any data excluded from the analyses. In any event, Essroc shall include all data required to be collected during the Demonstration Period in the Demonstration Report.

13. Essroc shall propose a 30-Day Rolling Average Emission Limit for NO_x in the Demonstration Report as provided in the preceding Paragraph 12 of this Appendix B 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:

$X = \mu + 1.65\sigma$ where:

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

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

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

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

14. U.S. EPA shall either approve the proposed final 30-day Rolling Average Emission Limit or establish an alternative final 30-day Rolling Average Emission Limit. If U.S. EPA establishes an alternative Final 30-day Rolling Average Emission Limit, Essroc will begin to meet this final 30-day Rolling Average Emission Limit within 30 days of receipt of U.S. EPA's notice unless it invokes the Section XV (Dispute Resolution) provisions of this Consent Decree within that time by sending a Written Notice of Dispute in accordance with Section XIX (Notice). If Essroc invokes Dispute Resolution, it shall follow the procedures set forth in Paragraph 74 (Informal Dispute Resolution for Emission Limit Setting Process) to hire an independent contractor to review and make a non-binding recommendation regarding the appropriate final Emission Limit. During any dispute resolution process, Essroc shall comply with the proposed final 30-day Rolling Average Emission Limit as proposed by Essroc in Paragraph 13 of this Appendix.

CONSENT DECREE APPENDIX C
United States of America et al v. Essroc Cement Corp adv.
Environmental Mitigation Projects

In compliance with and in addition to the requirements in Section V of this Consent Decree (Environmental Mitigation Projects), Essroc 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. Essroc shall spend \$745,000 to implement the following schedule to replace the identified in-service diesel engines with diesel engines that have emission control equipment further described in this Section A of this Appendix C, designed to reduce emissions of NO_x, particulates and/or ozone precursors (the "Projects" or "Project"):
 - a) By December 31, 2012, at the Speed plant, Essroc shall replace the currently unregulated Tier 0 engine in Quarry Truck, Model CAT 773 B #3, Serial Number 63W1386 with a new replacement engine in accordance with Tier 1 engine standards at 40 CFR Part 89, at a cost of \$150,000;
 - b) By December 31, 2012, at the Nazareth plant, Essroc shall replace the currently unregulated Tier 0 engine in Loader Model CAT 988F, Serial Number 2ZR01015 with a new replacement engine in accordance with Tier 2 engine standards at 40 CFR Part 89, at a cost of \$149,000;
 - c) By December 31, 2013, at Martinsburg, Essroc shall replace the currently unregulated Tier 0 engine in Quarry Truck, Model CAT 777 C, Serial Number 49XJ545 with a new replacement engine in accordance with Tier 2 engine standards at 40 CFR Part 89, at a cost of \$270,000;
 - d) By December 31, 2013, at Martinsburg, Essroc shall replace the current Tier 0 engine in Quarry Loader, Model CAT 992 D, Serial Number 7MJ00734 with a new replacement engine in accordance with Tier 2 engine standards at 40 CFR Part 89, at a cost of \$176,000.
2. Essroc shall provide a mechanism by which each replaced engine in Section A above is properly disposed of, which must include destruction of the engine block.
3. For any third party with whom Essroc might contract to carry out any of the Projects, Essroc shall establish minimum standards that include prior experience in performing replacements/repowers.
4. Nothing in this Consent Decree shall be interpreted to prohibit Essroc from completing any of the Projects ahead of schedule.

5. In accordance with the requirements of Paragraph 15 of the Consent Decree, within 60 days following the completion of each Project, Essroc 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 Project Dollars incurred by Essroc in implementing the Project.