



west virginia department of environmental protection

Appendix M: Electric Generating Units (EGUs)

West Virginia Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Promoting a healthy environment.

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Table of Contents

Appendix B: Electric Generating Units (EGUs)	Page M-1
Table of Contents	Page M-3
Coal-Fired EGUs Equipped With SCR.....	Page M-5
American Electric Power Service Corp., et al. – Consent Decree	Page M-7
Virginia Electric and Power Company – Consent Decree	Page M-131
Harrison Power Station – Title V Minor Permit Modification	Page M-251
Pleasants-Willow Island Power Station – Title V Minor Permit Modification	Page M-335
EGUs Permanently Retired.....	Page M-433
<i>Kammer Plant</i>	Page M-435
<i>Kanawha River Plant</i>	Page M-439
<i>Philip Sporn Plant</i>	Page M-443
Coal-Fired EGUs Equipped With SNCR-Trim	Page M-447
Fort Martin Power Station – Title V Permit to Operate.....	Page M-449
CFB Equipped with SNCR	Page M-529
Morgantown Energy Associates – Title V Operating Permit Revision	Page M-531
American Bituminous Power Partners, L.P. – Title V Operating Permit Revision.....	Page M-629
Natural Gas-Fired Simple Cycle Peaking Units	Page M-701
Big Sandy Peaker Plant, LLC – Title V Permit to Operate	Page M-703
Ceredo Generating Station – Title V Permit Modification	Page M-749
Pleasants Energy, LLC – Title V Permit to Operate.....	Page M-769

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Coal-Fired EGUs Equipped With SCR

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American Electric Power Service Corp., et. Al.

Consent Decree

Civil Action No C2-99-1250

Civil Action No C2-05-360

Civil Action No C2-04-1098

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IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF OHIO
EASTERN DIVISION

UNITED STATES OF AMERICA)
)
 Plaintiff,)
)
 and)
)
 STATE OF NEW YORK, ET AL.,)
)
 Plaintiff-Intervenors,)
)
 v.)
)
 AMERICAN ELECTRIC POWER SERVICE)
)
 CORP., ET AL.,)
)
 Defendants.)
)

JUDGE EDMUND A. SARGUS, JR.
Magistrate Judge Terence P. Kemp

Civil Action No C2-99-1250
(Consolidated with C2-99-1182)

UNITED STATES OF AMERICA)
)
 Plaintiff,)
)
 v.)
)
 AMERICAN ELECTRIC POWER SERVICE)
)
 CORP., ET AL.,)
)
 Defendants.)
)

JUDGE GREGORY L. FROST
Magistrate Judge Norah McCann King

Civil Action No C2-05-360

TABLE OF CONTENTS

I. JURISDICTION AND VENUE.....	4
II. APPLICABILITY.....	5
III. DEFINITIONS.....	5
IV. NO _x EMISSION REDUCTIONS AND CONTROLS	19
A. Eastern System-Wide Annual Tonnage Limitations for NO _x	19
B. NO _x Emission Limitations and Control Requirements.....	20
C. General Provisions for Use and Surrender of NO _x Allowances	22
D. Use of Excess NO _x Allowances.....	23
E. Super-Compliant NO _x Allowances.....	26
F. Method for Surrender of Excess NO _x Allowances	26
G. Reporting Requirements for NO _x Allowances.....	28
H. General NO _x Provisions.....	28
V. SO ₂ EMISSION REDUCTIONS AND CONTROLS	28
A. Eastern System-Wide Annual Tonnage Limitations for SO ₂	28
B. SO ₂ Emission Limitations and Control Requirements	29
C. Use and Surrender of SO ₂ Allowances	32
D. Method for Surrender of Excess SO ₂ Allowances	33
E. Super-Compliant SO ₂ Allowances.....	35
F. Reporting Requirements for SO ₂ Allowances.....	35
G. General SO ₂ Provisions	35
VI. PM EMISSION REDUCTIONS AND CONTROLS.....	35
A. Optimization of Existing ESPs	35
B. PM Emission Rate and Testing.....	36
C. PM Emissions Monitoring.....	37
D. Installation and Operation of PM CEMS	38
E. PM Reporting.....	40
F. General PM Provisions	40
VII. PROHIBITION ON NETTING CREDITS OR OFFSETS FROM REQUIRED CONTROLS	41

VIII. ENVIRONMENTAL MITIGATION PROJECTS	41
A. Requirements for Projects Described in Appendix A (\$36 million)	42
B. Mitigation Projects to be Conducted by the States (\$24 million).....	43
IX. CIVIL PENALTY	45
X. RESOLUTION OF CIVIL CLAIMS AGAINST DEFENDANTS	46
A. Resolution of the United States’ Civil Claims.....	46
B. Pursuit by the United States of Civil Claims Otherwise Resolved by Subsection A	48
C. Resolution of Past Claims of the States and Citizen Plaintiffs and Reservation of Rights.....	51
XI. PERIODIC REPORTING.....	52
XII. REVIEW AND APPROVAL OF SUBMITTALS	54
XIII. STIPULATED PENALTIES	55
XIV. FORCE MAJEURE	61
XV. DISPUTE RESOLUTION	64
XVI. PERMITS.....	66
XVII. INFORMATION COLLECTION AND RETENTION	69
XVIII. NOTICES.....	70
XIX. SALES OR TRANSFERS OF OPERATIONAL OR OWNERSHIP INTERESTS	74
XX. EFFECTIVE DATE.....	76
XXI. RETENTION OF JURISDICTION.....	76
XXII. MODIFICATION	77
XXIII. GENERAL PROVISIONS.....	77
XXIV. SIGNATORIES AND SERVICE	79
XXV. PUBLIC COMMENT	80
XXVI. CONDITIONAL TERMINATION OF ENFORCEMENT UNDER DECREE	80
XXVII. FINAL JUDGMENT.....	82

Appendix A: Environmental Mitigation Projects

Appendix B: Reporting Requirements

Appendix C: Monitoring Strategy and Calculation of 30-Day Rolling Average
Removal Efficiency for Conesville Units 5 and 6

WHEREAS, the following complaints have been filed against American Electric Power Service Corporation, Indiana Michigan Power Company, Ohio Power Company, Appalachian Power Company, Cardinal Operating Company, and Columbus Southern Power Company in the above-captioned cases, *United States, et al. v. American Electric Power Service Corp., et al.*, Civil Action Nos. C2-99-1182 and C2-99-1250 (“*AEP I*”) and *United States, et al. v. American Electric Power Service Corp., et al.*, Civil Action Nos. C2-04-1098 and C2-05-360 (“*AEP II*”):

(a) the United States of America (“United States”), on behalf of the United States Environmental Protection Agency (“EPA”), filed initial complaints on November 3, 1999 and April 8, 2005, and filed amended complaints on March 3, 2000 and September 17, 2004, pursuant to Sections 113(b), 165, and 167 of the Clean Air Act (the “Act”), 42 U.S.C. §§ 7413, 7475, and 7477;

(b) the States of New York, Connecticut, New Jersey, Vermont, New Hampshire, Maryland, and Rhode Island, and the Commonwealth of Massachusetts, after their motion to intervene was granted, filed initial complaints on December 14, 1999 and November 18, 2004, and filed amended complaints on April 5, 2000, September 24, 2002, and September 17, 2004, pursuant to Section 304 of the Act, 42 U.S.C. § 7604; and

(c) Ohio Citizen Action, Citizens Action Coalition of Indiana, Hoosier Environmental Council, Valley Watch, Inc., Ohio Valley Environmental Coalition, West Virginia Environmental Council, Clean Air Council, Izaak Walton League of America, United States Public Interest Research Group, National Wildlife Federation, Indiana Wildlife Federation, League of Ohio Sportsmen, Sierra Club, and Natural Resources Defense Council,

Inc. filed an initial complaint on November 19, 1999, and filed amended complaints on January 1, 2000 and September 16, 2004, pursuant to Section 304 of the Act, 42 U.S.C. § 7604;

WHEREAS, the complaints filed against Defendants in *AEP I* and *AEP II* sought injunctive relief and the assessment of civil penalties for alleged violations of, *inter alia*, the:

- (a) Prevention of Significant Deterioration and Nonattainment New Source Review provisions in Part C and D of Subchapter I of the Act, 42 U.S.C. §§ 7470-7492, 7501-7515; and
- (b) federally-enforceable state implementation plans developed by Indiana, Ohio, Virginia, and West Virginia;

WHEREAS, EPA issued notices of violation (“NOVs”) to Defendants with respect to such allegations on November 2, 1999, November 22, 1999, and June 18, 2004;

WHEREAS, EPA provided Defendants and the States of Indiana, Ohio, and West Virginia, and the Commonwealth of Virginia, with actual notice pertaining to Defendants’ alleged violations, in accordance with Section 113(a)(1) and (b) of the Act, 42 U.S.C. § 7413(a)(1) and (b);

WHEREAS, in their complaints, the United States, the States, and Citizen Plaintiffs (collectively, the “Plaintiffs”) alleged, *inter alia*, that Defendants made major modifications to major emitting facilities, and failed to obtain the necessary permits and install the controls necessary under the Act to reduce sulfur dioxide, nitrogen oxides, and/or particulate matter emissions, and further alleged that such emissions damage human health and the environment;

WHEREAS, the Plaintiffs' complaints state claims upon which relief can be granted against Defendants under Sections 113, 165, and 167 of the Act, 42 U.S.C. §§ 7413, 7475, and 7477, and 28 U.S.C. § 1355;

WHEREAS, Defendants have denied and continue to deny the violations alleged in the complaints and NOV's, maintain that they have been and remain in compliance with the Act and are not liable for civil penalties or injunctive relief, and state that they are agreeing to the obligations imposed by this Consent Decree solely to avoid the costs and uncertainties of litigation and to improve the environment;

WHEREAS, Defendants have installed and operated SCR technology on several Units in the AEP Eastern System, as those terms are defined herein, during the five (5) month ozone season to achieve emission reductions in compliance with the NO_x SIP Call;

WHEREAS, the Plaintiffs and Defendants anticipate that this Consent Decree, including the installation and operation of pollution control technology and other measures adopted pursuant to this Consent Decree, will achieve significant reductions of emissions from the AEP Eastern System and thereby significantly improve air quality;

WHEREAS, the liability phase of *AEP I* was tried on July 6-7, 2005, and July 11-12, 2005, and no decision has been rendered;

WHEREAS, the Parties have agreed, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated in good faith and at arm's length; that this settlement is fair, reasonable, and in the public interest, and consistent with the goals of the Act; and that entry of this Consent Decree without further litigation is the most appropriate means of resolving this matter;

NOW, THEREFORE, without any admission by Defendants, and without adjudication of the violations alleged in the complaints or the NOV's, it is hereby ORDERED, ADJUDGED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over this action, the subject matter herein, and the Parties consenting hereto, pursuant to 28 U.S.C. §§ 1331, 1345, 1355, and 1367, Sections 113, 167, and 304 of the Act, 42 U.S.C. §§ 7413, 7477, and 7604. Solely for the purposes of this Consent Decree, venue is proper under Section 113(b) of the Act, 42 U.S.C. § 7413(b), and under 28 U.S.C. § 1391(b) and (c). Solely for the purposes of this Consent Decree and the underlying complaints, and for no other purpose, Defendants waive all objections and defenses that they may have to the Court's jurisdiction over this action, to the Court's jurisdiction over Defendants, and to venue in this District. Defendants shall not challenge the terms of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree. Solely for the purposes of the complaints filed by the Plaintiffs in this matter and resolved by the Consent Decree, for the purposes of entry and enforcement of this Consent Decree, and for no other purpose, Defendants waive any defense or objection based on standing. Except as expressly provided for herein, this Consent Decree shall not create any rights in or obligations of any party other than the Plaintiffs and Defendants. Except as provided in Section XXV (Public Comment) of this Consent Decree, the Parties consent to entry of this Consent Decree without further notice. To facilitate entry of this Consent Decree, upon the Date of Lodging of this Consent Decree the Parties shall file a Joint Motion to Consolidate *AEP I* and *AEP II* so that *AEP II* is consolidated into *AEP I*.

II. APPLICABILITY

2. Upon entry, the provisions of the Consent Decree shall apply to and be binding upon and inure to the benefit of Plaintiffs and Defendants, and their respective successors and assigns, and upon their officers, employees, and agents, solely in their capacities as such.

3. Defendants shall be responsible for providing a copy of this Consent Decree to all vendors, suppliers, consultants, contractors, agents, and any other company or other organization retained to perform any of the work required by this Consent Decree. Notwithstanding any retention of contractors, subcontractors, or agents to perform any work required under this Consent Decree, Defendants shall be responsible for ensuring that all work is performed in accordance with the requirements of this Consent Decree. For this reason, in any action to enforce this Consent Decree, Defendants shall not assert as a defense the failure of their officers, directors, employees, servants, agents, or contractors to take actions necessary to comply with this Consent Decree, unless Defendants establish that such failure resulted from a Force Majeure Event, as defined in Paragraph 158 of this Consent Decree.

III. DEFINITIONS

Every term expressly defined by this Consent Decree shall have the meaning given to that term by this Consent Decree and, except as otherwise provided in this Consent Decree, every other term used in this Consent Decree that is also a term under the Act or the regulations implementing the Act shall mean in this Consent Decree what such term means under the Act or those implementing regulations.

4. A “1-hour Average NO_x Emission Rate” for a re-powered gas-fired, electric generating unit means, and shall be expressed as, the average concentration in parts per million

(“ppm”) by dry volume, corrected to 15% O₂, as averaged over one (1) hour. In determining the 1-Hour Average NO_x Emission Rate, Defendants shall use CEMS in accordance with applicable reference methods specified in 40 C.F.R. Part 60 to calculate the emissions for each 15-minute interval within each clock hour, except as provided in this Paragraph. Compliance with the 1-Hour Average NO_x Emission Rate shall be shown by averaging all 15-minute CEMS interval readings within a clock hour, except that any 15-minute CEMS interval that contains any part of a startup or shutdown shall not be included in the calculation of that 1-Hour average. A minimum of two 15-minute CEMS interval readings within a clock hour, not including startup or shutdown intervals, is required to determine compliance with the 1-Hour average NO_x Emission Rate. All emissions recorded by CEMS shall be reported in 1-Hour averages.

5. A “30-Day Rolling Average Emission Rate” for a Unit means, and shall be expressed as, a lb/mmBTU and calculated in accordance with the following procedure: first, sum the total pounds of the pollutant in question emitted from the Unit during an Operating Day and the previous twenty-nine (29) Operating Days; second, sum the total heat input to the Unit in mmBTU during the Operating Day and the previous twenty-nine (29) Operating Days; and third, divide the total number of pounds of the pollutant emitted during the thirty (30) Operating Days by the total heat input during the thirty (30) Operating Days. A new 30-Day Rolling Average Emission Rate shall be calculated for each new Operating Day. Each 30-Day Rolling Average Emission Rate shall include all emissions that occur during all periods of startup, shutdown, and Malfunction within an Operating Day, except as follows:

- a. Emissions and BTU inputs that occur during a period of Malfunction shall be excluded from the calculation of the 30-Day Rolling Average Emission

Rate if Defendants provide notice of the Malfunction to EPA in accordance with Paragraph 159 in Section XIV (Force Majeure) of this Consent Decree;

- b. Emissions of NO_x and BTU inputs that occur during the fifth and subsequent Cold Start Up Period(s) that occur at a given Unit during any 30-day period shall be excluded from the calculation of the 30-Day Rolling Average Emission Rate if inclusion of such emissions would result in a violation of any applicable 30-Day Rolling Average Emission Rate and Defendants have installed, operated, and maintained the SCR in question in accordance with manufacturers' specifications and good engineering practices. A "Cold Start Up Period" occurs whenever there has been no fire in the boiler of a Unit (no combustion of any Fossil Fuel) for a period of six (6) hours or more. The NO_x emissions to be excluded during the fifth and subsequent Cold Start Up Period(s) shall be the lesser of (i) those NO_x emissions emitted during the eight (8) hour period commencing when the Unit is synchronized with a utility electric distribution system and concluding eight (8) hours later, or (ii) those NO_x emissions emitted prior to the time that the flue gas has achieved the minimum SCR operational temperature specified by the catalyst manufacturer; and
- c. For SO₂, shall include all emissions and BTUs commencing from the time the Unit is synchronized with a utility electric distribution system through

the time that the Unit ceases to combust fossil fuel and the fire is out in the boiler.

6. A “30-Day Rolling Average Removal Efficiency” means, for SO₂, at a Unit other than Conesville Unit 5 and Conesville Unit 6, the percent reduction in the mass of SO₂ achieved by a Unit’s FGD system over a 30-Operating Day period and shall be calculated as follows: step one, sum the total pounds of SO₂ emitted as measured at the outlet of the FGD system for the Unit during the current Operating Day and the previous twenty-nine (29) Operating Days as measured at the outlet of the FGD system for that Unit; step two, sum the total pounds of SO₂ delivered to the inlet of the FGD system for the Unit during the current Operating Day and the previous twenty-nine (29) Operating Days as measured at the inlet to the FGD system for that Unit; step three, subtract the outlet SO₂ emissions calculated in step one from the inlet SO₂ emissions calculated in step two; step four, divide the remainder calculated in step three by the inlet SO₂ emissions calculated in step two; and step five, multiply the quotient calculated in step four by 100 to express as a percentage of removal efficiency. A new 30-day Rolling Average Removal Efficiency shall be calculated for each new Operating Day, and shall include all emissions that occur during all periods within each Operating Day except that emissions that occur during a period of Malfunction may be excluded from the calculation if Defendants provide Notice of the Malfunction to Plaintiffs in accordance with Section XIV (Force Majeure) and it is determined to be a Force Majeure Event pursuant to that Section.

7. “AEP Eastern System” means, solely for purposes of this Consent Decree, the following coal-fired, electric steam generating Units (with the nominal nameplate net capacity of each Unit):

- a. Amos Unit 1 (800 MW), Amos Unit 2 (800 MW), and Amos Unit 3 (1300 MW) located in St. Albans, West Virginia;
- b. Big Sandy Unit 1 (260 MW) and Big Sandy Unit 2 (800 MW) located in Louisa, Kentucky;
- c. Cardinal Unit 1 (600 MW), Cardinal Unit 2 (600 MW), and Cardinal Unit 3 (630 MW) located in Brilliant, Ohio;
- d. Clinch River Unit 1 (235 MW), Clinch River Unit 2 (235 MW), and Clinch River Unit 3 (235 MW) located in Carbo, Virginia;
- e. Conesville Unit 1 (125 MW), Conesville Unit 2 (125 MW), Conesville Unit 3 (165 MW), Conesville Unit 4 (780 MW), Conesville Unit 5 (375 MW), and Conesville Unit 6 (375 MW) located in Conesville, Ohio;
- f. Gavin Unit 1 (1300 MW) and Gavin Unit 2 (1300 MW) located in Cheshire, Ohio;
- g. Glen Lyn Unit 5 (95 MW) and Glen Lyn Unit 6 (240 MW) located in Glen Lyn, Virginia;
- h. Kammer Unit 1 (210 MW), Kammer Unit 2 (210 MW), and Kammer Unit 3 (210 MW) located in Moundsville, West Virginia;
- i. Kanawha River Unit 1 (200 MW) and Kanawha River Unit 2 (200 MW) located in Glasgow, West Virginia;
- j. Mitchell Unit 1 (800 MW) and Mitchell Unit 2 (800 MW) located in Moundsville, West Virginia;
- k. Mountaineer Unit 1 (1300 MW) located in New Haven, West Virginia;

- l. Muskingum River Unit 1 (205 MW), Muskingum River Unit 2 (205 MW), Muskingum River Unit 3 (215 MW), Muskingum River Unit 4 (215 MW), and Muskingum River Unit 5 (585 MW) located in Beverly, Ohio;
- m. Picway Unit 9 (100 MW) located in Lockbourne, Ohio;
- n. Rockport Unit 1 (1300 MW) and Rockport Unit 2 (1300 MW) located in Rockport, Indiana;
- o. Sporn Unit 1 (150 MW), Sporn Unit 2 (150 MW), Sporn Unit 3 (150 MW), Sporn Unit 4 (150), and Sporn Unit 5 (450 MW) located in New Haven, West Virginia; and
- p. Tanners Creek Unit 1 (145 MW), Tanners Creek Unit 2 (145 MW), Tanners Creek Unit 3 (205 MW), and Tanners Creek Unit 4 (500 MW) located in Lawrenceburg, Indiana.

8. “Boiler Island” means: a Unit’s (a) fuel combustion system (including bunker, coal pulverizers, crusher, stoker, and fuel burners); (b) combustion air system; (c) steam generating system (firebox, boiler tubes, and walls); and (d) draft system (excluding the stack), all as further described in “Interpretation of Reconstruction,” by John B. Rasnic, U.S. EPA (November 25, 1986) and attachments thereto.

9. “CEMS” or “Continuous Emission Monitoring System” means, for obligations involving NO_x and SO₂ under this Consent Decree, the devices defined in 40 C.F.R. § 72.2 and installed and maintained as required by 40 C.F.R. Part 75.

10. “Citizen Plaintiffs” means, collectively, Ohio Citizen Action, Citizens Action Coalition of Indiana, Hoosier Environmental Council, Ohio Valley Environmental Coalition,

West Virginia Environmental Council, Clean Air Council, Izaak Walton League of America, United States Public Interest Research Group, National Wildlife Federation, Indiana Wildlife Federation, League of Ohio Sportsmen, Sierra Club, and Natural Resources Defense Council, Inc.

11. “Clean Air Act” or “Act” means the federal Clean Air Act, 42 U.S.C. §§ 7401-7671q, and its implementing regulations.

12. “Clean Air Interstate Rule” or “CAIR” means the regulations promulgated by EPA on May 12, 2005, at 70 Fed. Reg. 25,161, which are entitled, “Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule); Revisions to Acid Rain Program; Revisions to NO_x SIP Call; Final Rule,” and any subsequent amendments to that regulation, and any applicable, federally-approved state implementation plan or the federal implementation plan to implement CAIR.

13. “Consent Decree” or “Decree” means this Consent Decree and the appendices attached hereto, which are incorporated into this Consent Decree.

14. “Continuously Operate” or “Continuous Operation” means that when an SCR, FGD, ESP, or Other NO_x Pollution Controls are used at a Unit, except during a Malfunction, they shall be operated at all times such Unit is in operation, consistent with the technological limitations, manufacturers’ specifications, and good engineering and maintenance practices for such equipment and the Unit so as to minimize emissions to the greatest extent practicable.

15. “Date of Entry” means the date this Consent Decree is approved or signed by the United States District Court Judge; provided, however, that if the Parties’ Joint Motion to Consolidate, as specified in Paragraph 1, is denied or not decided, then the “Date of Entry”

means the date that the last of the two United States District Court Judges hearing these cases approves or signs this Consent Decree.

16. “Date of Lodging” means the date this Consent Decree is filed for lodging with the Clerk of the Court for the United States District Court for the Southern District of Ohio.

17. “Day” means, unless otherwise specified, calendar day.

18. “Defendants” or “AEP” means American Electric Power Service Corporation, Kentucky Power Company d/b/a American Electric Power, Indiana Michigan Power Company d/b/a American Electric Power, Ohio Power Company d/b/a American Electric Power, Cardinal Operating Company and its owners (Ohio Power and Buckeye Power, Inc.), Appalachian Power Company d/b/a American Electric Power, and Columbus Southern Power Company d/b/a American Electric Power.

19. “Eastern System-Wide Annual Tonnage Limitation” means the limitations, as specified in this Consent Decree, on the number of tons of the air pollutants that may be emitted from the AEP Eastern System during the relevant calendar year (i.e., January 1 through December 31), and shall include all emissions of the air pollutants emitted during all periods of startup, shutdown, and Malfunction, except that emissions that occur during a period of Malfunction may be excluded from the calculation if Defendants provide Notice of the Malfunction to Plaintiffs in accordance with Section XIV (Force Majeure) and it is determined to be a Force Majeure Event pursuant to that Section.

20. “Emission Rate” means the number of pounds of pollutant emitted per million BTU of heat input (“lb/mmBTU”), measured in accordance with this Consent Decree.

21. “EPA” means the United States Environmental Protection Agency.

22. “ESP” means electrostatic precipitator, a pollution control device for the reduction of PM.

23. “Environmental Mitigation Project” means a project funded or implemented by Defendants as a remedial measure to mitigate alleged damage to human health or the environment, including National Parks or Wilderness Areas, claimed to have been caused by the alleged violations described in the complaints or to compensate Plaintiffs for costs necessitated as a result of the alleged damages.

24. “Existing Unit” means a Unit that commenced operation prior to the Date of Lodging of this Consent Decree.

25. “Flue Gas Desulfurization System,” or “FGD,” means a pollution control device with one or more absorber vessels that employs flue gas desulfurization technology for the reduction of SO₂.

26. “Fossil Fuel” means any hydrocarbon fuel, including coal, petroleum coke, petroleum oil, or natural gas.

27. An “Improved Unit” for NO_x means an AEP Eastern System Unit equipped with an SCR or scheduled under this Consent Decree to be equipped with an SCR, or required to be Retired, Retrofitted, or Re-powered. A Unit may be an Improved Unit for one pollutant without being an Improved Unit for another. Any Other Unit in the AEP Eastern System can become an Improved Unit for NO_x if it is equipped with an SCR and the requirement to Continuously Operate such SCR is incorporated into a federally-enforceable non-Title V permit or site-specific amendment to the state implementation plan and the Title V Permit applicable to that Unit.

28. An “Improved Unit” for SO₂ means an AEP Eastern System Unit equipped with an FGD or scheduled under this Consent Decree to be equipped with an FGD, or required to be Retired, Retrofitted, or Re-powered. A Unit may be an Improved Unit for one pollutant without being an Improved Unit for another. Any Other Unit in the AEP Eastern System can become an Improved Unit for SO₂ if it is equipped with an FGD and the requirement to Continuously Operate such FGD is incorporated into a federally-enforceable non-Title V permit or site-specific amendment to the state implementation plan and the Title V Permit applicable to that Unit.

29. “KW” means kilowatt or one thousand watts.

30. “lb/mmBTU” means one pound per million British thermal units.

31. “Malfunction” means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not Malfunctions.

32. “MW” means a megawatt or one million watts.

33. “NSR Permit” means a preconstruction permit issued by the permitting authority pursuant to Parts C or D of Subchapter I of the Clean Air Act.

34. “National Ambient Air Quality Standards” or “NAAQS” means national ambient air quality standards that are promulgated pursuant to Section 109 of the Act, 42 U.S.C. § 7409.

35. “New and Newly Permitted Unit” means a Unit that commenced operation after the Date of Lodging of this Consent Decree, and that has been issued a final NSR Permit for SO₂ and NO_x that includes applicable Best Available Control Technology (“BACT”) and/or Lowest

Achievable Emission Rate (“LAER”) limitations, as those terms are respectively defined at 42 U.S.C. §§ 7479(3), 7501(3).

36. “Nonattainment NSR” means the nonattainment area New Source Review program within the meaning of Part D of Subchapter I of the Act, 42 U.S.C. §§ 7501-7515, and its regulations, 40 C.F.R. Part 51.

37. “NO_x” means oxides of nitrogen, measured in accordance with the provisions of this Consent Decree.

38. “NO_x Allowance” means an authorization to emit a specified amount of NO_x that is allocated or issued under an emissions trading or marketable permit program of any kind that has been established under the Clean Air Act or a state implementation plan.

39. “NO_x CAIR Allocations” means the number of NO_x Allowances allocated to the AEP Eastern System Units pursuant to the Clean Air Interstate Rule, excluding any NO_x Allowances awarded by Indiana, Kentucky, Ohio, West Virginia, and Virginia to an AEP Eastern System Unit from the “compliance supplement pool,” as that phrase is defined at 40 C.F.R. § 96.143, in a federally-approved state implementation plan, or federal implementation plan to implement CAIR.

40. “Operating Day” means any day on which a Unit fires Fossil Fuel.

41. “Other NO_x Pollution Controls” means the measures identified in the table in Paragraph 69 that will achieve reductions in NO_x emissions at the Units specified therein.

42. “Other SO₂ Measures” means the measures identified in Paragraph 90 that will achieve reductions in SO₂ emissions at the Units specified therein.

43. “Other Unit” means any Unit of the AEP Eastern System that is not an Improved Unit for the pollutant in question.

44. “Operational or Ownership Interest” means part or all of Defendants’ legal or equitable operational or ownership interests in any Unit in the AEP Eastern System.

45. “Parties” means the United States, the States, the Citizen Plaintiffs, and Defendants. “Party” means one of the Parties.

46. “Plaintiffs” means the United States, the States, and the Citizen Plaintiffs.

47. “Plant-Wide Annual Rolling Tonnage Limitation for SO₂ at Clinch River” means the sum of the tons of SO₂ emitted during all periods of operation from the Clinch River plant, including, without limitation, all SO₂ emitted during periods of startup, shutdown, and Malfunction, in the most recent month and the previous eleven (11) months. A new Annual Rolling Average Tonnage Limitation for years 2010 through 2014, and for 2015 and continuing thereafter, shall be calculated in accordance with Paragraph 88.

48. “Plant-Wide Annual Tonnage Limitation for SO₂ at Kammer” means the sum of the tons of SO₂ emitted during all periods of operation from the Kammer plant, including, without limitation, all SO₂ emitted during periods of startup, shutdown, and Malfunction, during the relevant calendar year (i.e., January 1 through December 31). A new Plant-Wide Annual Tonnage Limitation shall be calculated for each new calendar year.

49. “PM” means particulate matter, as measured in accordance with the provisions of this Consent Decree.

50. “PM CEMS” or “PM Continuous Emission Monitoring System” means the equipment that samples, analyzes, measures, and provides, by readings taken at frequent intervals, an electronic or paper record of PM emissions.

51. “PM Emission Rate” means the number of pounds of PM emitted per million BTU of heat input (lb/mmBTU), as measured in annual stack tests in accordance with EPA Method 5, 5B, or 17, 40 C.F.R. Part 60, including Appendix A.

52. “Project Dollars” means Defendants’ expenditures and payments incurred or made in carrying out the Environmental Mitigation Projects identified in Section VIII (Environmental Mitigation Projects) of this Consent Decree to the extent that such expenditures or payments both: (a) comply with the requirements set forth in Section VIII (Environmental Mitigation Projects) and Appendix A of this Consent Decree, and (b) constitute Defendants’ direct payments for such projects, or Defendants’ external costs for contractors, vendors, and equipment.

53. “PSD” means Prevention of Significant Deterioration within the meaning of Part C of Subchapter I of the Clean Air Act, 42 U.S.C. §§ 7470-7492, and its regulations, 40 C.F.R. Part 52.

54. “Re-power” means either (1) the replacement of an existing pulverized coal boiler through the construction of a new circulating fluidized bed (“CFB”) boiler or other technology of equivalent environmental performance that at a minimum achieves and maintains a 30-Day Rolling Average Emission Rate not greater than 0.100 lb/mmBTU or a 30-Day Rolling Average Removal Efficiency of at least ninety-five percent (95%) for SO₂ and a 30-Day Rolling Average Emission Rate not greater than 0.070 lb/mmBTU for NO_x; or (2) the modification of

such Unit, or removal and replacement of Unit components, such that the modified or replaced Unit generates electricity through the use of new combined cycle combustion turbine technology fueled by natural gas containing no more than 0.5 grains of sulfur per 100 standard cubic feet of natural gas, and at a minimum, achieves a 1-hour Average NO_x Emission Rate not greater than 2.0 ppm.

55. “Retire” means that Defendants shall: (a) permanently shut down and cease to operate the Unit; and (b) comply with any state and/or federal requirements applicable to that Unit. Defendants shall amend any applicable permits so as to reflect the permanent shutdown status of such Unit.

56. “Retrofit” means that the Unit must install and Continuously Operate both an SCR and an FGD. For the 600 MW listed in the table in Paragraph 68 and 87, “Retrofit” means that the Unit must meet a federally-enforceable 30-Day Rolling Average Emission Rate of 0.100 lb/mmBTU for NO_x and a 30-Day Rolling Average Emission Rate of 0.100 lb/mmBTU for SO₂, measured in accordance with the requirements of this Consent Decree.

57. “Selective Catalytic Reduction System” or “SCR” means a pollution control device that employs selective catalytic reduction technology for the reduction of NO_x emissions.

58. “Selective Non-Catalytic Reduction” means a pollution control device for the reduction of NO_x emissions that utilizes ammonia or urea injection into the boiler.

59. “SO₂” means sulfur dioxide, as measured in accordance with the provisions of this Consent Decree.

60. “SO₂ Allowance” means “allowance” as defined at 42 U.S.C. § 7651a(3): “an authorization, allocated to an affected unit by the Administrator of EPA under Subchapter IV of the Act, to emit, during or after a specified calendar year, one ton of sulfur dioxide.”

61. “SO₂ Allocations” means the number of SO₂ Allowances allocated to the AEP Eastern System Units.

62. “Super-Compliant NO_x Allowance” means an allowance attributable to reductions beyond the requirements of this Consent Decree as determined in accordance with Paragraph 80.

63. “Super-Compliant SO₂ Allowance” means an allowance attributable to reductions beyond the requirements of this Consent Decree as determined in accordance with Paragraph 98.

64. “States” means the States of Connecticut, Maryland, New Hampshire, New Jersey, New York, Rhode Island, and Vermont, and the Commonwealth of Massachusetts.

65. “Title V Permit” means the permit required for Defendants’ major sources under Subchapter V of the Act, 42 U.S.C. §§ 7661-7661e.

66. “Unit” means collectively, the coal pulverizer, stationary equipment that feeds coal to the boiler, the boiler that produces steam for the steam turbine, the steam turbine, the generator, the equipment necessary to operate the generator, steam turbine, and boiler, and all ancillary equipment, including pollution control equipment. An electric steam generating station may comprise one or more Units.

IV. NO_x EMISSION REDUCTIONS AND CONTROLS

A. Eastern System-Wide Annual Tonnage Limitations for NO_x.

67. Notwithstanding any other provisions of this Consent Decree, except Section XIV (Force Majeure), during each calendar year specified in the table below, all Units in the AEP

Eastern System, collectively, shall not emit NO_x in excess of the following Eastern System-Wide Annual Tonnage Limitations:

Calendar Year	Eastern System-Wide Annual Tonnage Limitations for NO_x
2009	96,000 tons
2010	92,500 tons
2011	92,500 tons
2012	85,000 tons
2013	85,000 tons
2014	85,000 tons
2015	75,000 tons
2016, and each year thereafter	72,000 tons

B. NO_x Emission Limitations and Control Requirements.

68. No later than the dates set forth in the table below, Defendants shall install and Continuously Operate SCR on each Unit identified therein, or, if indicated in the table, Retire, Retrofit, or Re-power such Unit:

Unit	NO_x Pollution Control	Date
Amos Unit 1	SCR	January 1, 2008
Amos Unit 2	SCR	January 1, 2009
Amos Unit 3	SCR	January 1, 2008
Big Sandy Unit 2	SCR	January 1, 2009
Cardinal Unit 1	SCR	January 1, 2009
Cardinal Unit 2	SCR	January 1, 2009

Unit	NO_x Pollution Control	Date
Cardinal Unit 3	SCR	January 1, 2009
Conesville Unit 1	Retire, Retrofit, or Re-power	Date of Entry of this Consent Decree
Conesville Unit 2	Retire, Retrofit, or Re-power	Date of Entry of this Consent Decree
Conesville Unit 3	Retire, Retrofit, or Re-power	December 31, 2012
Conesville Unit 4	SCR	December 31, 2010
Gavin Unit 1	SCR	January 1, 2009
Gavin Unit 2	SCR	January 1, 2009
Mitchell Unit 1	SCR	January 1, 2009
Mitchell Unit 2	SCR	January 1, 2009
Mountaineer Unit 1	SCR	January 1, 2008
Muskingum River Units 1-4	Retire, Retrofit, or Re-power	December 31, 2015
Muskingum River Unit 5	SCR	January 1, 2008
Rockport Unit 1	SCR	December 31, 2017
Rockport Unit 2	SCR	December 31, 2019
Sporn Unit 5	Retire, Retrofit, or Re-power	December 31, 2013
A total of at least 600 MW from the following list of Units: Sporn Units 1-4, Clinch River Units 1-3, Tanners Creek Units 1-3, and/or Kammer Units 1-3	Retire, Retrofit, or Re-power	December 31, 2018

69. Other NO_x Pollution Controls. No later than the dates set forth in the table below, Defendants shall Continuously Operate the Other NO_x Pollution Controls on the Units identified therein:

Unit	Other NO_x Pollution Controls	Date
Big Sandy Unit 1	Low NO _x Burners	Date of Entry
Glen Lyn Units 5 and 6	Low NO _x Burners	Date of Entry
Clinch River Units 1, 2, and 3	Low NO _x Burners, and Selective Non-catalytic Reduction	For Low NO _x Burners, Date of Entry, and, for Selective Non-Catalytic Reduction, December 31, 2009
Conesville Units 5 and 6	Low NO _x Burners	Date of Entry
Kammer Units 1, 2, and 3	Overfire Air	Date of Entry
Kanawha River Units 1 and 2	Low NO _x Burners	Date of Entry
Picway Unit 9	Low NO _x Burners	Date of Entry
Tanners Creek Units 1, 2, and 3	Low NO _x Burners	Date of Entry
Tanners Creek Unit 4	Overfire Air	Date of Entry

C. General Provisions for Use and Surrender of NO_x Allowances.

70. Except as may be necessary to comply with this Section and Section XIII (Stipulated Penalties), Defendants may not use NO_x Allowances to comply with any requirement of this Consent Decree, including by claiming compliance with any emission limitation or Eastern System-Wide Annual Tonnage Limitation required by this Decree, by using, tendering,

or otherwise applying NO_x Allowances to achieve compliance or offset any emissions above the limits specified in this Consent Decree.

71. As required by this Section IV of this Consent Decree, Defendants shall surrender NO_x Allowances that would otherwise be available for sale, trade, or transfer as a result of actions taken by Defendants to comply with the requirements of this Consent Decree.

72. NO_x Allowances allocated to the AEP Eastern System may be used by Defendants to meet their own federal and/or state Clean Air Act regulatory requirements for the Units included in the AEP Eastern System. Subject to Paragraph 70, nothing in this Consent Decree shall prevent Defendants from purchasing or otherwise obtaining NO_x Allowances from another source for purposes of complying with their own federal and/or state Clean Air Act requirements to the extent otherwise allowed by law.

73. The requirements in this Consent Decree pertaining to Defendants' use and surrender of NO_x Allowances are permanent injunctions not subject to any termination provision of this Consent Decree. These provisions shall survive any termination of this Consent Decree.

D. Use of Excess NO_x Allowances.

74. Calculation of Unrestricted and Restricted NO_x Allowances. On an annual basis, beginning in 2009, Defendants shall calculate the difference between the NO_x CAIR Allocations for the Units in the AEP Eastern System for that year and the annual Eastern System-Wide Tonnage Limitations for NO_x for that calendar year. This difference represents the total Excess NO_x Allowances for that calendar year. For purposes of this Consent Decree, for each year commencing in 2009 and ending in 2015, forty-two percent (42%) of the Excess NO_x Allowances shall be Unrestricted Excess NO_x Allowances and fifty-eight percent (58%) shall be

Restricted Excess NO_x Allowances. Commencing in 2016, and continuing thereafter, all Excess NO_x Allowances shall be Restricted Excess NO_x Allowances.

75. Use and Surrender of Unrestricted Excess NO_x Allowances. For each calendar year commencing in 2009 and ending in 2015, Defendants may use Unrestricted Excess NO_x Allowances in any manner authorized by law. No later than March 1, 2016, Defendants must surrender, or transfer to a non-profit third party selected by Defendants for surrender, all unused Unrestricted Excess NO_x Allowances subject to surrender accumulated during the period from 2009 through 2015.

76. Use and Surrender of Restricted Excess NO_x Allowances. Beginning in calendar year 2009, and for each calendar year thereafter, Defendants shall calculate the difference between the number of any Restricted Excess NO_x Allowances and the number of NO_x Allowances that is equal to the amount of actual NO_x emissions from: (a) any New and Newly Permitted Unit as defined in this Consent Decree, and (b) the following five natural-gas plants but only up to a cumulative total of 1200 tons of NO_x in any single year: Ceredo Generating Station located near Ceredo, West Virginia, with a nominal generating capacity of 505 megawatts; Waterford Energy Center located in southeastern Ohio, with a nominal generating capacity of 821 megawatts; Darby Electric Generating Station located near Columbus, Ohio, with a nominal generating capacity of 480 megawatts; Lawrenceburg Generating Station located in Lawrenceburg, Indiana, with a generating capacity of 1,096 megawatts; and a natural gas-fired power plant under construction near Dresden, Ohio, with a nominal generating capacity of 580 megawatts. This difference shall be the amount of Restricted Excess NO_x Allowances

potentially subject to surrender in 2016. During calendar years 2009 through 2015, Defendants may accumulate Restricted Excess NO_x Allowances potentially subject to surrender in 2016.

77. NO_x Allowances from Renewable Energy. Beginning in calendar year 2009, and for each calendar year thereafter, Defendants may subtract from the number of Restricted Excess NO_x Allowances potentially subject to surrender, a number of allowances calculated in accordance with this Paragraph. To calculate such number, Defendants shall use the following method: multiply 0.0002 by the sum of (a) the actual annual generation in MWH/year generated from solar or wind power projects first owned or operated by Defendants after the Date of Lodging of this Consent Decree, and (b) the actual annual generation in MWH/year purchased by Defendants from solar or wind power projects in any year after the Date of Lodging of this Consent Decree. Such figure so calculated shall be subtracted from the number of Restricted Excess NO_x Allowances potentially subject to surrender each year. The remainder shall be the Restricted Excess NO_x Allowances subject to surrender.

78. Defendants may, solely at their discretion, use Restricted Excess NO_x Allowances at a New and Newly Permitted Unit for which Defendants have received a final NSR Permit from the permitting agency even if the NSR Permit has been appealed but not stayed during the permit appeal process. If Defendants use Restricted Excess NO_x Allowances at such New and Newly Permitted Unit, and the emissions from such New and Newly Permitted Unit are greater than what such Unit is permitted to emit after final adjudication of the appeal process, Defendants shall, within thirty (30) days of such final adjudication, retire an amount of NO_x Allowances equal to the number of tons of NO_x actually emitted that exceeded the finally adjudicated permit limit.

79. No later than March 1, 2016, the total number of Restricted Excess NO_x Allowances subject to surrender accumulated during 2009 through 2015 as calculated in accordance with Paragraphs 74, 76, and 77, shall be surrendered or transferred to a non-profit third party selected by Defendants for surrender, pursuant to Subsection F, below. Beginning in calendar year 2016, and for each calendar year thereafter, the total number of Restricted Excess NO_x Allowances subject to surrender for that year calculated in accordance with Paragraph 74, 76 and 77, shall be surrendered, or transferred to a non-profit third party selected by Defendants for surrender, by March 1 of the following calendar year.

E. Super-Compliant NO_x Allowances.

80. In each calendar year beginning in 2009, and continuing thereafter, Defendants may use in any manner authorized by law any NO_x Allowances made available in that year as a result of maintaining actual NO_x emissions from the AEP Eastern System below the Eastern System-Wide Annual Tonnage Limitations for NO_x under this Consent Decree for each calendar year. Defendants shall timely report the generation of such Super-Compliant NO_x Allowances in accordance with Section XI (Periodic Reporting) and Appendix B of this Consent Decree.

F. Method for Surrender of Excess NO_x Allowances.

81. For purposes of this Consent Decree, the “surrender” of Excess Restricted or Unrestricted Excess NO_x Allowances subject to surrender means permanently surrendering to EPA NO_x Allowances from the accounts administered by EPA so that such NO_x Allowances can never be used thereafter to meet any compliance requirement under the Clean Air Act, a state implementation plan, or this Consent Decree.

82. For all Restricted or Unrestricted Excess NO_x Allowances subject to surrender required to be surrendered to EPA in Paragraphs 79 and 75, above, Defendants or the third party recipient(s) (as the case may be) shall first submit a NO_x Allowance transfer request form to EPA's Office of Air and Radiation's Clean Air Markets Division directing the transfer of such NO_x Allowances to the EPA Enforcement Surrender Account or to any other EPA account that EPA may direct in writing. As part of submitting these transfer requests, Defendants or the third party recipient(s) shall irrevocably authorize the transfer of these NO_x Allowances and identify – by name of account and any applicable serial or other identification numbers or station names – the source and location of the NO_x Allowances being surrendered.

83. If any NO_x Allowances required to be surrendered under this Consent Decree are transferred directly to a non-profit third party, Defendants shall include a description of such transfer in the next report submitted to EPA as required by Section XI (Periodic Reporting) of this Consent Decree. Such report shall: (a) identify the non-profit third party recipient(s) of the NO_x Allowances and list the serial numbers of the transferred NO_x Allowances; and (b) include a certification by the third party recipient(s) stating that the recipient(s) will not sell, trade, or otherwise exchange any of the NO_x Allowances and will not use any of the NO_x Allowances to meet any obligation imposed by any environmental law. No later than the second periodic report due after the transfer of any NO_x Allowances, Defendants shall include a statement that the third party recipient(s) surrendered the NO_x Allowances for permanent surrender to EPA in accordance with the provisions of Paragraph 82 within one (1) year after Defendants transferred the NO_x Allowances to them. Defendants shall not have complied with the NO_x Allowance

surrender requirements of this Paragraph until all third party recipient(s) have actually surrendered the transferred NO_x Allowances to EPA.

G. Reporting Requirements for NO_x Allowances.

84. Defendants shall comply with the reporting requirements for NO_x Allowances as described in Section XI (Periodic Reporting) and Appendix B.

H. General NO_x Provisions.

85. To the extent a NO_x Emission Rate is required under this Consent Decree, Defendants shall use CEMS in accordance with the reference methods specified in 40 C.F.R. Part 75 to determine such Emission Rate.

V. SO₂ EMISSION REDUCTIONS AND CONTROLS

A. Eastern System-Wide Annual Tonnage Limitations for SO₂.

86. Notwithstanding any other provisions of this Consent Decree, except Section XIV (Force Majeure), during each calendar year specified in the table below, all Units in the AEP Eastern System, collectively, shall not emit SO₂ in excess of the following Eastern System-Wide Annual Tonnage Limitations:

Calendar Year	Eastern System-Wide Annual Tonnage Limitations for SO₂
2010	450,000 tons
2011	450,000 tons
2012	420,000 tons
2013	350,000 tons
2014	340,000 tons

Calendar Year	Eastern System-Wide Annual Tonnage Limitations for SO₂
2015	275,000 tons
2016	260,000 tons
2017	235,000 tons
2018	184,000 tons
2019, and each year thereafter	174,000 tons

B. SO₂ Emission Limitations and Control Requirements.

87. No later than the dates set forth in the table below, Defendants shall install and Continuously Operate an FGD on each Unit identified therein, or, if indicated in the table, Retire, Retrofit, or Re-power such Unit:

Unit	SO₂ Pollution Control	Date
Amos Units 1 and 3	FGD	December 31, 2009
Amos Unit 2	FGD	December 31, 2010
Big Sandy Unit 2	FGD	December 31, 2015
Cardinal Units 1 and 2	FGD	December 31, 2008
Cardinal Unit 3	FGD	December 31, 2012
Conesville Units 1 and 2	Retire, Retrofit, or Re-power	Date of Entry
Conesville Unit 3	Retire, Retrofit, or Re-power	December 31, 2012
Conesville Unit 4	FGD	December 31, 2010
Conesville Unit 5	Upgrade existing FGD and meet a 95% 30-day Rolling Average Removal Efficiency	December 31, 2009

Unit	SO₂ Pollution Control	Date
Conesville Unit 6	Upgrade existing FGD and meet a 95% 30-day Rolling Average Removal Efficiency	December 31, 2009
Gavin Units 1 and 2	FGD	Date of Entry
Mitchell Units 1 and 2	FGD	December 31, 2007
Mountaineer Unit 1	FGD	December 31, 2007
Muskingum River Units 1-4	Retire, Retrofit, or Re-power	December 31, 2015
Muskingum River Unit 5	FGD	December 31, 2015
Rockport Unit 1	FGD	December 31, 2017
Rockport Unit 2	FGD	December 31, 2019
Sporn Unit 5	Retire, Retrofit, or Re-power	December 31, 2013
A total of at least 600 MW from the following list of Units: Sporn Units 1-4, Clinch River Units 1-3, Tanners Creek Units 1-3, and/or Kammer Units 1-3	Retire, Retrofit, or Re-power	December 31, 2018

88. Plant-Wide Annual Rolling Average Tonnage Limitation for SO₂ at Clinch River.

Beginning on January 1, 2010, and continuing through December 31, 2014, Defendants shall limit their total annual SO₂ emissions at the Clinch River plant to a Plant-Wide Annual Rolling Average Tonnage Limitation of 21,700 tons. Beginning on January 1, 2015, and continuing thereafter, Defendants shall limit their total annual SO₂ emissions at the Clinch River plant to a Plant-Wide Annual Rolling Average Tonnage Limitation of 16,300 tons. For purposes of calculating the Plant-Wide Annual Rolling Average Tonnage Limitation that begins in 2010, Defendants shall use the period beginning January 1, 2010 through December 31, 2010 to

establish the initial annual period that is subject to the Plant-Wide Annual Rolling Average Tonnage Limitation for 2010 through 2014. Defendants shall then calculate a new Plant-Wide Annual Rolling Average Tonnage Limitation each month thereafter through December 31, 2014, by averaging the most recent month with the previous eleven (11) months. For purposes of calculating the Plant-Wide Annual Rolling Average Tonnage Limitation that begins in 2015, Defendants shall use the period beginning January 1, 2015 through December 31, 2015 to establish the initial annual period that is subject to the Plant-Wide Annual Average Rolling Tonnage Limitation for 2015. Defendants shall then calculate a new Plant-Wide Annual Rolling Average Tonnage Limitation each month thereafter by averaging the most recent month with the previous eleven (11) months.

89. Plant-Wide Annual Tonnage Limitation for SO₂ at Kammer. Beginning on January 1, 2010, and continuing annually thereafter, Defendants shall limit their total annual SO₂ emissions at the Kammer plant to a Plant-Wide Annual Tonnage Limitation of 35,000 tons.

90. Other SO₂ Measures. No later than the dates set forth in the table below, Defendants shall comply with the limit on coal sulfur content for such Units, at all times that the Units are in operation:

Unit	Other SO₂ Measures	Date
Big Sandy Unit 1	Units can only burn coal with a sulfur content no greater than 1.75 lb/mmBTU on an annual average basis	Date of Entry
Glen Lyn Units 5 and 6	Units can only burn coal with a sulfur content no greater than 1.75 lb/mmBTU on an annual average basis.	Date of Entry

Unit	Other SO₂ Measures	Date
Kanawha River Units 1 and 2	Units can only burn coal with a sulfur content no greater than 1.75 lb/mmBTU on an annual average basis	Date of Entry
Tanners Creek Units 1, 2, and 3	Units can only burn coal with a sulfur content no greater than 1.2 lb/mmBTU on an annual average basis	Date of Entry
Tanners Creek Unit 4	Unit can only burn coal with a sulfur content no greater than 1.2 % on an annual average basis	Date of Entry

C. Use and Surrender of SO₂ Allowances.

91. Defendants may use SO₂ Allowances allocated to the AEP Eastern System by the Administrator of EPA under the Act, or by any state under its state implementation plan, to meet their own federal and/or state regulatory requirements for the Units included in the AEP Eastern System. Subject to Paragraph 92, nothing in this Consent Decree shall prevent Defendants from purchasing or otherwise obtaining SO₂ Allowances from another source for purposes of complying with their own federal and/or state Clean Air Act requirements to the extent otherwise allowed by law.

92. Except as may be necessary to comply with this Section and Section XIII (Stipulated Penalties), Defendants may not use any SO₂ Allowances to comply with any requirement of this Consent Decree, including by claiming compliance with any emission limitation, Eastern System-Wide Annual Tonnage Limitations, Plant-Wide Annual Rolling Average Tonnage Limitation for SO₂ at Clinch River, or Plant-Wide Annual Tonnage Limitation

for SO₂ at Kammer required by this Consent Decree by using, tendering, or otherwise applying SO₂ Allowances to achieve compliance or offset any emissions above the limits specified in this Consent Decree.

93. On an annual basis beginning in 2010, and continuing thereafter, Defendants shall calculate the number of Excess SO₂ Allowances by subtracting the number of SO₂ Allowances equal to the annual Eastern System-Wide Tonnage Limitations for SO₂ for each calendar year times the applicable allowance surrender ratio from the annual SO₂ Allocations for all Units within the AEP Eastern System for the same calendar year. Defendants shall surrender, or transfer to a non-profit third party selected by Defendants for surrender, all Excess SO₂ Allowances that have been allocated to the AEP Eastern System for the specified calendar year by the Administrator of EPA under the Act or by any state under its state implementation plan. Defendants shall make the surrender of SO₂ Allowances required by this Paragraph to EPA by March 1 of the immediately following calendar year.

D. Method for Surrender of Excess SO₂ Allowances.

94. For purposes of this Subsection, the “surrender” of Excess SO₂ Allowances means permanently surrendering allowances from the accounts administered by EPA so that such allowances can never be used thereafter to meet any compliance requirement under the Clean Air Act, a state implementation plan, or this Consent Decree.

95. If any SO₂ Allowances required to be surrendered under this Consent Decree are transferred directly to a non-profit third party, Defendants shall include a description of such transfer in the next report submitted to EPA pursuant to Section XI (Periodic Reporting) of this Consent Decree. Such report shall: (i) identify the non-profit third party recipient(s) of the SO₂

Allowances and list the serial numbers of the transferred SO₂ Allowances; and (ii) include a certification by the third party recipient(s) stating that the recipient(s) will not sell, trade, or otherwise exchange any of the allowances and will not use any of the SO₂ Allowances to meet any obligation imposed by any environmental law. No later than the second periodic report due after the transfer of any SO₂ Allowances, Defendants shall include a statement that the third party recipient(s) surrendered the SO₂ Allowances for permanent surrender to EPA in accordance with the provisions of Paragraph 96 within one (1) year after Defendants transferred the SO₂ Allowances to them. Defendants shall not have complied with the SO₂ Allowance surrender requirements of this Paragraph until all third party recipient(s) have actually surrendered the transferred SO₂ Allowances to EPA.

96. For all SO₂ Allowances surrendered to EPA, Defendants or the third party recipient(s) (as the case may be) shall first submit an SO₂ Allowance transfer request form to EPA's Office of Air and Radiation's Clean Air Markets Division directing the transfer of such SO₂ Allowances to the EPA Enforcement Surrender Account or to any other EPA account that EPA may direct in writing. As part of submitting these transfer requests, Defendants or the third party recipient(s) shall irrevocably authorize the transfer of these SO₂ Allowances and identify – by name of account and any applicable serial or other identification numbers or station names – the source and location of the SO₂ Allowances being surrendered.

97. The requirements in this Consent Decree pertaining to Defendants' surrender of SO₂ Allowances are permanent injunctions not subject to any termination provision of this Decree. These provisions shall survive any termination of this Consent Decree in whole or in part.

E. Super-Compliant SO₂ Allowances.

98. In each calendar year beginning in 2010, and continuing thereafter, Defendants may use in any manner authorized by law any SO₂ Allowances made available in that year as a result of maintaining actual SO₂ emissions from the AEP Eastern System below the Eastern System-Wide Annual Tonnage Limitations for SO₂ under this Consent Decree for each calendar year. Defendants shall timely report the generation of such Super-Compliant SO₂ Allowances in accordance with Section XI (Periodic Reporting) and Appendix B of this Consent Decree.

F. Reporting Requirements for SO₂ Allowances.

99. Defendants shall comply with the reporting requirements for SO₂ Allowances as described in Section XI (Periodic Reporting) and Appendix B.

G. General SO₂ Provisions.

100. To the extent an Emission Rate or 30-Day Rolling Average Removal Efficiency for SO₂ is required under this Consent Decree, Defendants shall use CEMS in accordance with the reference methods specified in 40 C.F.R. Part 75 to determine such Emission Rate.

101. Notwithstanding Paragraphs 6 and 100, the 30-Day Rolling Average Removal Efficiency for SO₂ at Conesville Unit 5 and Conesville Unit 6 shall be determined in accordance with Appendix C.

VI. PM EMISSION REDUCTIONS AND CONTROLS

A. Optimization of Existing ESPs.

102. Beginning thirty (30) days after the Date of Entry, and continuing thereafter, Defendants shall Continuously Operate each ESP on Cardinal Unit 1, Cardinal Unit 2, and Muskingum River Unit 5 to maximize PM emission reductions at all times when the Unit is in

operation, provided that such operation of the ESP is consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for the ESP. Defendants shall, at a minimum, to the extent reasonably practicable: (a) fully energize each section of the ESP for each unit, and repair any failed ESP section at the next planned Unit outage (or unplanned outage of sufficient length); (b) operate automatic control systems on each ESP to maximize PM collection efficiency; (c) maintain power levels delivered to the ESPs, consistent with manufacturers' specifications, the operational design of the Unit, and good engineering practices; and (d) inspect for and repair during the next planned Unit outage (or unplanned outage of sufficient length) any openings in ESP casings, ductwork, and expansion joints to minimize air leakage.

B. PM Emission Rate and Testing.

103. No later than the dates specified in the table below, Defendants shall Continuously Operate each Unit specified therein to achieve and maintain a PM Emission Rate no greater than 0.030 lb/mmBTU:

Unit	Date to Achieve and Maintain PM Emission Rate
Cardinal Unit 1	December 31, 2009
Cardinal Unit 2	December 31, 2009
Muskingum River Unit 5	December 31, 2012

104. On or before the date established by this Consent Decree for Defendants to achieve and maintain 0.030 lb/mmBTU at Cardinal Unit 1, Cardinal Unit 2, and Muskingum River Unit 5, Defendants shall conduct a performance test for PM that demonstrates compliance with the PM Emission Rate required by this Consent Decree. Within forty-five (45) days of each such performance test, Defendants shall submit the results of the performance test to Plaintiffs pursuant to Section XVIII (Notices) of this Consent Decree.

C. PM Emissions Monitoring.

105. Beginning in calendar year 2010 for Cardinal Unit 1 and Cardinal Unit 2, and calendar year 2013 for Muskingum River Unit 5, and continuing in each calendar year thereafter, Defendants shall conduct a stack test for PM on each stack servicing Cardinal Unit 1, Cardinal Unit 2, and Muskingum River Unit 5. The annual stack test requirement imposed by this Paragraph may be satisfied by stack tests conducted by Defendants as required by their permits from the State of Ohio for any year that such stack tests are required under the permits.

106. The reference methods and procedures for determining compliance with PM Emission Rates shall be those specified in 40 C.F.R. Part 60, Appendix A, Method 5, 5B, or 17, or an alternative method that is promulgated by EPA, requested for use herein by Defendants, and approved for use herein by EPA. Use of any particular method shall conform to the EPA requirements specified in 40 C.F.R. Part 60, Appendix A and 40 C.F.R. § 60.48Da(b) and (e), or any federally-approved method contained in the Ohio State Implementation Plan. Defendants shall calculate the PM Emission Rates from the stack test results in accordance with 40 C.F.R. § 60.8(f). The results of each PM stack test shall be submitted to EPA within forty-five (45) days of completion of each test.

D. Installation and Operation of PM CEMS.

107. Defendants shall install, calibrate, operate, and maintain PM CEMS, as specified below. Each PM CEMS shall comprise a continuous particle mass monitor measuring particulate matter concentration, directly or indirectly, on an hourly average basis and a diluent monitor used to convert the concentration to units of lb/mmBTU. Defendants shall maintain, in an electronic database, the hourly average emission values produced by all PM CEMS in lb/mmBTU. Defendants shall use reasonable efforts to keep each PM CEMS running and producing data whenever any Unit served by the PM CEMS is operating.

108. No later than December 31, 2011, Defendants shall submit to EPA pursuant to Section XII (Review and Approval of Submittals) of this Consent Decree: (a) a plan for the installation and certification of each PM CEMS, and (b) a proposed Quality Assurance/Quality Control (“QA/QC”) protocol that shall be followed in calibrating such PM CEMS. In developing both the plan for installation and certification of the PM CEMS and the QA/QC protocol, Defendants shall use the criteria set forth in 40 C.F.R. Part 60, Appendix B, Performance Specification 11, and Appendix F, Procedure 3. Following approval by EPA of the protocol, Defendants shall thereafter operate each PM CEMS in accordance with the approved protocol.

109. No later than the dates specified below, Defendants shall install, certify, and operate PM CEMS on the stacks or common stacks for Cardinal Unit 1, Cardinal Unit 2, and a third Unit, as further described in Paragraph 110:

Stack	Date to Commence Operation of PM CEMS
Cardinal Unit 1	December 31, 2012
Cardinal Unit 2	December 31, 2012
Unit to be identified pursuant to Paragraph 110	December 31, 2012

110. No later than December 31, 2011, Defendants shall identify, subject to Plaintiffs' approval, the third Unit required by Paragraph 109.

111. No later than ninety (90) days after Defendants begin operation of the PM CEMS, Defendants shall conduct tests of each PM CEMS to demonstrate compliance with the PM CEMS installation and certification plan submitted to and approved by EPA.

112. Demonstration that PM CEMS are Infeasible. Defendants shall operate the PM CEMS for at least two (2) years on each of the Units specified in Paragraphs 109 and 110. After two (2) years of operation, Defendants may attempt to demonstrate that it is infeasible to continue operating PM CEMS. As part of such demonstration, Defendants shall submit an alternative PM monitoring plan for review and approval by EPA. The plan shall explain the basis for stopping operation of the PM CEMS and propose an alternative PM monitoring plan. If the United States disapproves the alternative PM monitoring plan, or if the United States rejects Defendants' claim that it is infeasible to continue operating PM CEMS, such disagreement is subject to Section XV (Dispute Resolution).

113. "Infeasible to Continue Operating PM CEMS" Standard. Operation of a PM CEMS shall be considered no longer feasible if: (a) the PM CEMS cannot be kept in proper

condition for sufficient periods of time to produce reliable, adequate, or useful data consistent with the QA/QC protocol, or (b) Defendants demonstrate that recurring, chronic, or unusual equipment adjustment or servicing needs in relation to other types of continuous emission monitors cannot be resolved through reasonable expenditures of resources. If EPA determines that Defendants have demonstrated pursuant to this Paragraph that operation is no longer feasible, Defendants shall be entitled to discontinue operation of and remove the PM CEMS.

114. PM CEMS Operations Will Continue During Dispute Resolution or Proposals for Alternative Monitoring. Until EPA approves an alternative monitoring plan, or until the conclusion of any proceeding under Section XV (Dispute Resolution), Defendants shall continue to operate the PM CEMS. If EPA has not issued a decision regarding an alternative monitoring plan within 120 days, Defendants may initiate action under Section XV (Dispute Resolution).

E. PM Reporting.

115. Defendants shall comply with the reporting requirements for PM as described in Section XI (Periodic Reporting) and Appendix B.

F. General PM Provisions.

116. Although stack testing shall be used to determine compliance with the PM Emission Rate established by this Consent Decree, data from the PM CEMS shall be used, at a minimum, to monitor progress in reducing PM emissions.

VII. PROHIBITION ON NETTING CREDITS OR OFFSETS FROM REQUIRED CONTROLS

117. Emission reductions that result from actions required to be taken by Defendants after the Date of Entry of this Consent Decree to comply with the requirements of this Consent Decree shall not be considered as a creditable contemporaneous emission decrease for the purpose of obtaining a netting credit or offset under the Clean Air Act's Nonattainment NSR and PSD programs.

118. Nothing in this Consent Decree is intended to preclude the emission reductions generated under this Consent Decree from being considered by a State or EPA 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 increment, or air quality related values, including visibility, in a Class I area.

VIII. ENVIRONMENTAL MITIGATION PROJECTS

119. Defendants shall implement the Environmental Mitigation Projects ("Projects") described in Appendix A to this Consent Decree and fund the categories of Projects described in Subsection B, below, in compliance with the approved plans and schedules for such Projects and other terms of this Consent Decree. In funding and/or implementing all such Projects in Appendix A and Subsection B, Defendants shall expend moneys and/or implement Projects valued at no less than \$36 million for the Projects identified in Appendix A and \$24 million for the payments to the States to fund Projects within the categories set forth in Subsection B. Defendants shall fund and/or implement such Projects over a period of no later than five (5) years from the Date of Entry. Defendants may propose establishing one or more qualified settlement funds within the meaning of Treas. Reg. §1.468B-1 in conjunction with one or more

Mitigation Projects. Any such trust would be established pursuant to a trust agreement in a form to be mutually agreed upon by the affected Parties. Nothing in the foregoing is intended by the United States to be a determination or opinion regarding whether such trust would meet the requirements of Treas. Reg. §1.468B-1 or is otherwise appropriate.

A. Requirements for Projects Described in Appendix A (\$36 million).

120. Defendants shall maintain, and present to EPA upon request, all documents to substantiate the Project Dollars expended to implement the Projects described in Appendix A, and shall provide these documents to EPA within thirty (30) days of a request for the documents.

121. All plans and reports prepared by Defendants pursuant to the requirements of this Section of the Consent Decree and required to be submitted to EPA shall be publicly available from Defendants without charge.

122. Defendants shall certify, as part of each plan submitted to EPA for any Project, that Defendants are not otherwise required by law to perform the Project described in the plan, that Defendants are unaware of any other person who is required by law to perform the Project, and that Defendants will not use any Project, or portion thereof, to satisfy any obligations that it may have under other applicable requirements of law, including any applicable renewable portfolio standards.

123. Defendants shall use good faith efforts to secure as much benefit as possible for the Project Dollars expended, consistent with the applicable requirements and limits of this Consent Decree.

124. If Defendants elect (where such an election is allowed) to undertake a Project by contributing funds to another person or entity that will carry out the Project in lieu of Defendants, but not including Defendants' agents or contractors, that person or instrumentality

must, in writing: (a) identify its legal authority for accepting such funding; and (b) identify its legal authority to conduct the Project for which Defendants contribute the funds. Regardless of whether Defendants elect (where such election is allowed) to undertake a Project by itself or to do so by contributing funds to another person or instrumentality that will carry out the Project, Defendants acknowledge that they will receive credit for the expenditure of such funds as Project Dollars only if Defendants demonstrate that the funds have been actually spent by either Defendants or by the person or instrumentality receiving them, and that such expenditures met all requirements of this Consent Decree.

125. Defendants shall comply with the reporting requirements for Appendix A Projects as described in Section XI (Periodic Reporting) and Appendix B.

126. Within sixty (60) days following the completion of each Project required under this Consent Decree (including any applicable periods of demonstration or testing), Defendants shall submit to the United States a report that documents the date that the Project was completed, Defendants' results of implementing the Project, including the emission reductions or other environmental benefits achieved, and the Project Dollars expended by Defendants in implementing the Project.

B. Mitigation Projects to be Conducted by the States (\$24 million).

127. The States, by and through their respective Attorneys General, shall jointly submit to Defendants Projects within the categories identified in this Subsection B for funding in amounts not to exceed \$4.8 million per calendar year for no less than five (5) years following the Date of Entry of this Consent Decree beginning as early as calendar year 2008. The funds for these Projects will be apportioned by and among the States, and Defendants shall not have approval rights for the Projects or the apportionment. Defendants shall pay proceeds as

designated by the States in accordance with the Projects submitted for funding each year within seventy-five (75) days after being notified in writing by the States. Notwithstanding the \$4.8 million and 5-year limitation above, if the total costs of the projects submitted in any one or more years are less than \$4.8 million, the difference between that amount and \$4.8 million will be available for funding by Defendants of new or previously submitted projects in the following years, except that all amounts not designated by the States within ten (10) years after the Date of Entry of this Consent Decree shall expire.

128. Categories of Projects. The States agree to use money funded by Defendants to implement Projects that pertain to energy efficiency and/or pollution reduction. Such projects may include, but are not limited by, the following:

- a. Retrofitting land and marine vehicles (e.g., automobiles, off-road and on-road construction and other vehicles, trains, ferries) and transportation terminals and ports, with pollution control devices, such as particulate matter traps, computer chip reflashing, and battery hybrid technology;
- b. Truck-stop and marine port electrification;
- c. Purchase and installation of photo-voltaic cells on buildings;
- d. Projects to conserve energy use in new and existing buildings, including appliance efficiency improvement projects, weatherization projects, and projects intended to meet EPA's Green Building guidelines (see <http://www.epa.gov/greenbuilding/pubs/enviro-issues.htm>) and/or the Leadership in Energy and Environmental Design (LEED) Green Building Rating System (see <http://www.usgbc.org/DisplayPage.aspx?CategoryID=19>), and projects to

collect information in rental markets to assist in design of efficiency and conservation programs;

- e. Construction associated with the production of energy from wind, solar, and biomass;
- f. “Buy back” programs for dirty old motors (e.g., automobile, lawnmowers, landscape equipment);
- g. Programs to remove and/or replace oil-fired home heating equipment to allow use of ultra-low sulfur oil, and outdoor wood-fired boilers;
- h. Purchase and retirement of SO₂ and NO_x allowances; and
- i. Funding program to improve modeling of mobile source sector.

IX. CIVIL PENALTY

129. Within thirty (30) days after the Date of Entry, Defendants shall pay to the United States a civil penalty in the amount of \$15,000,000. The civil penalty shall be paid by Electronic Funds Transfer (“EFT”) to the United States Department of Justice, in accordance with current EFT procedures, referencing USAO File Number 1999v01542 and DOJ Case Number 90-5-2-1-06893 and the civil action case name and consolidated case numbers of this action. The costs of such EFT shall be Defendants’ responsibility. Payment shall be made in accordance with instructions provided to Defendants by the Financial Litigation Unit of the U.S. Attorney’s Office for the Southern District of Ohio. Any funds received after 2:00 p.m. EDT shall be credited on the next business day. At the time of payment, Defendants shall provide notice of payment, referencing the USAO File Number, the DOJ Case Number, and the civil action case name and consolidated case numbers, to the Department of Justice and to EPA in accordance with Section XVIII (Notices) of this Consent Decree.

130. Failure to timely pay the civil penalty shall subject Defendants to interest accruing from the date payment is due until the date payment is made at the rate prescribed by 28 U.S.C. § 1961, and shall render Defendants liable for all charges, costs, fees, and penalties established by law for the benefit of a creditor or of the United States in securing payment.

131. Payment made pursuant to this Section is a penalty within the meaning of Section 162(f) of the Internal Revenue Code, 26 U.S.C. § 162(f), and is not a tax-deductible expenditure for purposes of federal law.

X. RESOLUTION OF CIVIL CLAIMS AGAINST DEFENDANTS

A. Resolution of the United States' Civil Claims.

132. Claims Based on Modifications Occurring Before the Date of Lodging of this Consent Decree. Entry of this Decree shall resolve all civil claims of the United States against Defendants that arose from any modifications commenced at any AEP Eastern System Unit prior to the Date of Lodging of this Consent Decree, including but not limited to, those modifications alleged in the Notices of Violation and complaints filed in *AEP I* and *AEP II*, under any or all of: (a) Parts C or D of Subchapter I of the Clean Air Act, 42 U.S.C. §§ 7470-7492, 7501-7515; (b) Section 111 of the Clean Air Act, 42 U.S.C. § 7411, and 40 C.F.R. § 60.14; (c) the federally-approved and enforceable Indiana State Implementation Plan, Kentucky State Implementation Plan, Ohio State Implementation Plan, Virginia State Implementation Plan, and West Virginia State Implementation Plan; or (d) Sections 502(a) and 504(a) of Title V of the Clean Air Act, 42 U.S.C §§ 7611(a) and 7611(c), but only to the extent that such claims are based on Defendants' failure to obtain an operating permit that reflects applicable requirements imposed under Parts C or D of Subchapter I, or Section 111 of the Clean Air Act.

133. Claims Based on Modifications after the Date of Lodging of This Consent Decree. Entry of this Consent Decree also shall resolve all civil claims of the United States against Defendants that arise based on a modification commenced before December 31, 2018, or solely for Rockport Unit 2, before December 31, 2019, for all pollutants, except Particulate Matter, regulated under Parts C or D of Subchapter I of the Clean Air Act, and under regulations promulgated thereunder, as of the Date of Lodging of this Consent Decree, and:

- a. where such modification is commenced at any AEP Eastern System Unit after the Date of Lodging of this Consent Decree; or
- b. where such modification is one this Consent Decree expressly directs Defendants to undertake.

The term “modification” as used in this Paragraph shall have the meaning that term is given under the Clean Air Act and under the regulations in effect as of the Date of Lodging of this Consent Decree, as alleged in the complaints in *AEP I* and *AEP II*.

134. Reopener. The resolution of the United States’ civil claims against Defendants, as provided by this Subsection A, is subject to the provisions of Subsection B of this Section.

B. Pursuit by the United States of Civil Claims Otherwise Resolved by Subsection

A.

135. Bases for Pursuing Resolved Claims for the AEP Eastern System. If Defendants violate: (a) the Eastern System-Wide Annual Tonnage Limitations for NO_x required pursuant to Paragraph 67; (b) the Eastern System-Wide Annual Tonnage Limitations for SO₂ required pursuant to Paragraph 86; or (c) operate a Unit more than ninety (90) days past a date established in this Consent Decree without completing the required installation, upgrade, or commencing Continuous Operation of any emission control device required pursuant to Paragraphs 68, 69, 87, 102, and 103 then the United States may pursue any claim at any AEP Eastern System Unit that is otherwise resolved under Subsection A (Resolution of United States' Civil Claims), subject to (a) and (b) below.

- a. For any claims based on modifications undertaken at any Unit in the AEP Eastern System that is not an Improved Unit for the pollutant in question, claims may be pursued only where the modification(s) on which such claim is based was commenced within the five (5) years preceding the violation or failure specified in this Paragraph.
- b. For any claims based on modifications undertaken at an Improved Unit, claims may be pursued only where the modification(s) on which such claim is based was commenced: (1) after the Date of Lodging of this Consent Decree and (2) within the five (5) years preceding the violation or failure specified in this Paragraph.

136. Additional Bases for Pursuing Resolved Claims for Modifications at an Improved Unit. Solely with respect to an Improved Unit, the United States may also pursue claims arising

from a modification (or collection of modifications) at an Improved Unit that has otherwise been resolved under Subsection A (Resolution of the United States' Civil Claims) if the modification (or collection of modifications) at the Improved Unit on which such claim is based (a) was commenced after the Date of Lodging of this Consent Decree and (b) individually (or collectively) increased the maximum hourly emission rate of that Unit for NO_x or SO₂ (as measured by 40 C.F.R. § 60.14 (b) and (h)) by more than ten percent (10%).

137. Any Other Unit can become an Improved Unit for NO_x if (a) it is equipped with an SCR, and (b) the operation of such SCR is incorporated into a federally-enforceable non-Title V permit or site-specific amendment to the state implementation plan and incorporated into a Title V permit applicable to that Unit. Any Other Unit can become an Improved Unit for SO₂ if (a) it is equipped with an FGD, and (b) the operation of such FGD is incorporated into a federally-enforceable non-Title V permit or site-specific amendment to the state implementation plan and incorporated into a Title V permit applicable to that Unit.

138. Additional Bases for Pursuing Resolved Claims for Modifications at Other Units.

a. Solely with respect to Other Units, i.e., a Unit that is not an Improved Unit under the terms of this Consent Decree, the United States may also pursue claims arising from a modification (or collection of modifications) at an Other Unit that has otherwise been resolved under Subsection A (Resolution of the United States' Civil Claims), if the modification (or collection of modifications) at the Other Unit on which the claim is based was commenced within the five (5) years preceding any of the following events:

1. a modification (or collection of modifications) at such Other Unit commenced after the Date of Lodging of this Consent Decree increases the maximum hourly

emission rate for such Other Unit for the relevant pollutant (NO_x or SO₂) (as measured by 40 C.F.R. § 60.14(b) and (h));

2. the aggregate of all Capital Expenditures made at such Other Unit exceed \$125/KW on the Unit's Boiler Island (based on the generating capacities identified in Paragraph 7) during the period from the Date of Entry of this Consent Decree through December 31, 2015. (Capital Expenditures shall be measured in calendar year 2007 constant dollars, as adjusted by the McGraw-Hill Engineering News-Record Construction Cost Index); or

3. a modification (or collection of modifications) at such Other Unit commenced after the Date of Lodging of this Consent Decree results in an emissions increase of NO_x and/or SO₂ at such Other Unit, and such increase: (i) presents, by itself, or in combination with other emissions or sources, "an imminent and substantial endangerment" within the meaning of Section 303 of the Act, 42 U.S.C. §7603; (ii) causes or contributes to violation of a NAAQS in any Air Quality Control Area that is in attainment with that NAAQS; (iii) causes or contributes to violation of a PSD increment; or (iv) causes or contributes to any adverse impact on any formally-recognized air quality and related values in any Class I area. The introduction of any new or changed NAAQS shall not, standing alone, provide the showing needed under Subparagraphs (3)(ii) or (3)(iii) of this Paragraph, to pursue any claim for a modification at an Other Unit resolved under Subparagraph A of this Section.

b. Solely with respect to Other Units at the plant listed below, the United States may also pursue claims arising from a modification (or collection of modifications) at such Other Units commenced after the Date of Lodging of this Consent Decree if such modification (or collection of modifications) results in an emissions increase of SO₂ at such Other Unit, and such increase causes the emissions at the plant at issue to exceed the Plant-Wide Annual Rolling

Average Tonnage Limitation for SO₂ at Clinch River listed in the table below for year 2010-2014 and/or 2015 and beyond:

<u>Plant</u>	<u>Year</u>	<u>SO₂ Tons Limit</u>
Clinch River	2010 - 2014	21,700
Clinch River	2015 and each year thereafter	16,300

C. Resolution of Past Claims of the States and Citizen Plaintiffs and Reservation of Rights.

139. The States and Citizen Plaintiffs agree that this Consent Decree resolves all civil claims that have been alleged in their respective complaints or could have been alleged against Defendants prior to the Date of Lodging of this Consent Decree for violations of: (a) Parts C or D of Subchapter I of the Clean Air Act, 42 U.S.C. §§ 7470-7492, 7501-7515, and (b) Section 111 of the Act, 42 U.S.C. § 7411, and 40 C.F.R § 60.14, at Units within the AEP Eastern System.

140. The States and Citizen Plaintiffs expressly do not join in giving the Defendants the covenant provided by the United States through Paragraph 133 of this Consent Decree, do not release any claims under the Clean Air Act and its implementing regulations arising after the Date of Lodging of this Consent Decree, and reserve their rights, if any, to bring any actions against the Defendants pursuant to 42 U.S.C. § 7604 for any claims arising after the Date of Lodging of this Consent Decree.

141. Notwithstanding Paragraph 140, the States and Citizen Plaintiffs release Defendants from any civil claim that may arise under the Clean Air Act for Defendants' performance of activities that this Consent Decree expressly directs Defendants to undertake,

except to the extent that such activities would cause a significant increase in the emission of a criteria pollutant other than SO₂, NO_x, or PM.

142. Retention of Authority Regarding NAAQS Exceedences. Nothing in this Consent Decree shall be construed to affect the authority of the United States or any state under applicable federal statutes or regulations and applicable state statutes or regulations to impose appropriate requirements or sanctions on any Unit in the AEP Eastern System, including, but not limited to, the Units at the Clinch River plant, if the United States or a state determines that emissions from any Unit in the AEP Eastern System result in violation of, or interfere with the attainment and maintenance of, any ambient air quality standard.

XI. PERIODIC REPORTING

143. Beginning on March 31, 2008, and continuing annually thereafter on March 31 until termination of this Consent Decree, and in addition to any other express reporting requirement in this Consent Decree, Defendants shall submit to the United States, the States, and the Citizen Plaintiffs a progress report in compliance with Appendix B of this Consent Decree.

144. In any periodic progress report submitted pursuant to this Section, Defendants may incorporate by reference information previously submitted under their Title V permitting requirements, provided that Defendants attach the Title V permit report, or the relevant portion thereof, and provide a specific reference to the provisions of the Title V permit report that are responsive to the information required in the periodic progress report.

145. In addition to the progress reports required pursuant to this Section, Defendants shall provide a written report to the United States, the States, and the Citizen Plaintiffs of any violation of the requirements of this Consent Decree within fifteen (15) days of when Defendants knew or should have known of any such violation. In this report, Defendants shall explain the

cause or causes of the violation and all measures taken or to be taken by Defendants to prevent such violations in the future.

146. Each report shall be signed by Defendants' Vice President of Environmental Services or his or her equivalent or designee of at least the rank of Vice President, and shall contain the following certification:

This information was prepared either by me or 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 evaluation, or the direction and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, I hereby certify under penalty of law that, to the best of my knowledge and belief, this information is true, accurate, and complete. I understand that there are significant penalties for submitting false, inaccurate, or incomplete information to the United States.

147. If any SO₂ or NO_x Allowances are surrendered to any third party pursuant to this Consent Decree, the third party's certification pursuant to Paragraphs 83 and 95 shall be signed by a managing officer of the third party and shall contain the following language:

I certify under penalty of law that, _____ [name of third party] will not sell, trade, or otherwise exchange any of the allowances and will not use any of the allowances to meet any obligation imposed by any environmental law. I understand that there are significant penalties for submitting false, inaccurate, or incomplete information to the United States.

XII. REVIEW AND APPROVAL OF SUBMITTALS

148. Defendants shall submit each plan, report, or other submission required by this Consent Decree to the Plaintiffs specified, whenever such a document is required to be submitted for review or approval pursuant to this Consent Decree. The Plaintiff(s) to whom the report is submitted, as required, may approve the submittal or decline to approve it and provide written comments explaining the bases for declining such approval as soon as reasonably practicable. Such Plaintiff(s) will endeavor to coordinate their comments into one document when explaining their bases for declining such approval. Within sixty (60) days of receiving written comments from any of the Plaintiff(s), Defendants shall either: (a) revise the submittal consistent with the written comments and provide the revised submittal to the Plaintiff(s); or (b) submit the matter for dispute resolution, including the period of informal negotiations, under Section XV (Dispute Resolution) of this Consent Decree.

149. Upon receipt of Plaintiffs' or Plaintiff's (as the case may be) final approval of the submittal, or upon completion of the submittal pursuant to dispute resolution, Defendants shall implement the approved submittal in accordance with the schedule specified therein.

XIII. STIPULATED PENALTIES

150. For any failure by Defendants to comply with the terms of this Consent Decree, and subject to the provisions of Sections XIV (Force Majeure) and XV (Dispute Resolution), Defendants shall pay, within thirty (30) days after receipt of written demand to Defendants by the United States, the following stipulated penalties to the United States:

Consent Decree Violation	Stipulated Penalty (Per Day, Per Violation, Unless Otherwise Specified)
a. Failure to pay the civil penalty as specified in Section IX (Civil Penalty) of this Consent Decree	\$10,000 per day
b. Failure to comply with any applicable 30-Day Rolling Average Emission Rate, 30-Day Rolling Average Removal Efficiency, Emission Rate for PM, or Other SO ₂ Measures where the violation is less than 5% in excess of the limits set forth in this Consent Decree	\$2,500 per day per violation
c. Failure to comply with any applicable 30-Day Rolling Average Emission Rate, 30-Day Rolling Average Removal Efficiency, Emission Rate for PM, or Other SO ₂ Measures where the violation is equal to or greater than 5% but less than 10% in excess of the limits set forth in this Consent Decree	\$5,000 per day per violation
d. Failure to comply with any applicable 30-Day Rolling Average Emission Rate, 30-Day Rolling Average Removal Efficiency, Emission Rate for PM, or Other SO ₂ Measures where the violation is equal to or greater than 10% in excess of the limits set forth in this Consent Decree	\$10,000 per day per violation

Consent Decree Violation	Stipulated Penalty (Per Day, Per Violation, Unless Otherwise Specified)
e. Failure to comply with the Eastern System-Wide Annual Tonnage Limitation for SO ₂	\$5,000 per ton for the first 1000 tons, and \$10,000 per ton for each additional ton above 1000 tons, plus the surrender, pursuant to the procedures set forth in Paragraphs 82 and 83, of NO _x Allowances in an amount equal to two times the number of tons by which the limitation was exceeded
f. Failure to comply with the Plant-Wide Annual Rolling Tonnage Limitation for SO ₂ at Clinch River	\$40,000 per ton, plus the surrender, pursuant to the procedures set forth in Paragraphs 95 and 96, of SO ₂ Allowances in an amount equal to two times the number of tons by which the limitation was exceeded
g. Failure to comply with the Eastern System-Wide Annual Tonnage Limitation for NO _x	\$5,000 per ton for the first 1000 tons, and \$10,000 per ton for each additional ton above 1000 tons, plus the surrender, pursuant to the procedures set forth in Paragraphs 82 and 83, of NO _x Allowances in an amount equal to two times the number of tons by which the limitation was exceeded
h. Failure to install, commence operation, or Continuously Operate a pollution control device required under this Consent Decree	\$10,000 per day per violation during the first 30 days, \$32,500 per day per violation thereafter
i. Failure to Retire, Retrofit, or Re-power a Unit by the date specified in this Consent Decree	\$10,000 per day per violation during the first 30 days, \$32,500 per day per violation thereafter

Consent Decree Violation	Stipulated Penalty (Per Day, Per Violation, Unless Otherwise Specified)
j. Failure to install or operate CEMS as required in this Consent Decree	\$1,000 per day per violation
k. Failure to conduct performance tests of PM emissions, as required in this Consent Decree	\$1,000 per day per violation
l. Failure to apply for any permit required by Section XVI (Permits)	\$1,000 per day per violation
m. Failure to timely submit, modify, or implement, as approved, the reports, plans, studies, analyses, protocols, or other submittals required in this Consent Decree	\$750 per day per violation during the first ten days, \$1,000 per day per violation thereafter
n. Using NO _x Allowances except as permitted by Paragraphs 75, 76, and 78	The surrender of NO _x Allowances in an amount equal to four times the number of NO _x Allowances used in violation of this Consent Decree
o. Failure to surrender NO _x Allowances as required by Paragraphs 75 and 79	(a) \$32,500 per day plus (b) \$7,500 per NO _x Allowance not surrendered
p. Failure to surrender SO ₂ Allowances as required by Paragraph 93	(a) \$32,500 per day plus (b) \$1,000 per SO ₂ Allowance not surrendered
q. Failure to demonstrate the third party surrender of an SO ₂ Allowance or NO _x Allowance in accordance with Paragraphs 95-96 and 82-83.	\$2,500 per day per violation
r. Failure to implement any of the Environmental Mitigation Projects described in Appendix A in compliance with Section VIII (Environmental Mitigation Projects) of this Consent Decree	The difference between the cost of the Project, as identified in Appendix A, and the dollars Defendants spent to implement the Project

Consent Decree Violation	Stipulated Penalty (Per Day, Per Violation, Unless Otherwise Specified)
s. Failure to fund an Environmental Mitigation Project, as submitted by the States, in compliance with Section VIII (Environmental Mitigation Projects) of this Consent Decree	\$1,000 per day per violation during the first 30 days, \$5,000 per day per violation thereafter
t. Failure to Continuously Operate required Other NO _x Pollution Controls required in Paragraph 69	\$10,000 per day during the first 30 days, and \$32,500 each day thereafter
u. Failure to comply with the Plant-Wide Annual Tonnage Limitation for SO ₂ at Kammer	\$40,000 per ton, plus the surrender, pursuant to the procedures set forth in Paragraphs 95 and 96 of SO ₂ Allowances in an amount equal to two times the number of tons by which the limitation was exceeded
v. Any other violation of this Consent Decree	\$1,000 per day per violation

151. Violation of an Emission Rate or 30-Day Rolling Average Removal Efficiency that is based on a 30-Day Rolling Average is a violation on every day on which the average is based. Where a violation of a 30-Day Rolling Average Emission Rate or 30-Day Rolling Average Removal Efficiency (for the same pollutant and from the same source) recurs within periods of less than thirty (30) days, Defendants shall not pay a daily stipulated penalty for any day of the recurrence for which a stipulated penalty has already been paid.

152. All stipulated penalties shall begin to accrue on the day after the 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, whichever is applicable. Nothing in this Consent Decree shall prevent the simultaneous accrual of separate stipulated penalties for separate violations of this Consent Decree.

153. Defendants shall pay all stipulated penalties to the United States within thirty (30) days of receipt of written demand to Defendants from the United States, and shall continue to make such payments every thirty (30) days thereafter until the violation(s) no longer continues, unless Defendants elect within twenty (20) days of receipt of written demand to Defendants from the United States to dispute the accrual of stipulated penalties in accordance with the provisions in Section XV (Dispute Resolution) of this Consent Decree.

154. Stipulated penalties shall continue to accrue as provided in accordance with Paragraph 152 during any dispute, with interest on accrued stipulated penalties payable and calculated at the rate established by the Secretary of the Treasury, pursuant to 28 U.S.C. § 1961, but need not be paid until the following:

- a. If the dispute is resolved by agreement, or by a decision of Plaintiffs pursuant to Section XV (Dispute Resolution) of this Consent Decree that is not appealed to the Court, accrued stipulated penalties agreed or determined to be owing, together with accrued interest, shall be paid within thirty (30) days of the effective date of the agreement or of the receipt of Plaintiffs' decision;
- b. If the dispute is appealed to the Court and Plaintiffs prevail in whole or in part, Defendants shall, within sixty (60) days of receipt of the Court's decision or order, pay all accrued stipulated penalties determined by the Court to be owing, together with interest accrued on such penalties determined by the Court to be owing, except as provided in Subparagraph c, below;

- c. If the Court's decision is appealed by any Party, Defendants shall, within fifteen (15) days of receipt of the final appellate court decision, pay all accrued stipulated penalties determined to be owing, together with interest accrued on such stipulated penalties determined to be owing by the appellate court.

Notwithstanding any other provision of this Consent Decree, the accrued stipulated penalties agreed by the Plaintiffs and Defendants, or determined by the Plaintiffs through Dispute Resolution, to be owing may be less than the stipulated penalty amounts set forth in Paragraph 150.

155. All stipulated penalties shall be paid in the manner set forth in Section IX (Civil Penalty) of this Consent Decree.

156. Should Defendants fail to pay stipulated penalties in compliance with the terms of this Consent Decree, the United States shall be entitled to collect interest on such penalties, as provided for in 28 U.S.C. § 1961.

157. The stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to Plaintiffs by reason of Defendants' failure to comply with any requirement of this Consent Decree or applicable law, except that for any violation of the Act for which this Consent Decree provides for payment of a stipulated penalty, Defendants shall be allowed a credit for stipulated penalties paid against any statutory penalties also imposed for such violation.

XIV. FORCE MAJEURE

158. For purposes of this Consent Decree, including, but not limited to, Paragraphs 67 and 86, a “Force Majeure Event” shall mean an event that has been or will be caused by circumstances beyond the control of Defendants or any entity controlled by Defendants that delays compliance with any provision of this Consent Decree or otherwise causes a violation of any provision of this Consent Decree despite Defendants’ best efforts to fulfill the obligation. “Best efforts to fulfill the obligation” include using best efforts to anticipate any potential Force Majeure Event and to address the effects of any such event (a) as it is occurring and (b) after it has occurred, such that the delay or violation is minimized to the greatest extent possible.

159. Notice of Force Majeure Events. If any event occurs or has occurred that may delay compliance with or otherwise cause a violation of any obligation under this Consent Decree, as to which Defendants intend to assert a claim of Force Majeure, Defendants shall notify the Plaintiffs in writing as soon as practicable, but in no event later than twenty-one (21) business days following the date Defendants first knew, or by the exercise of due diligence should have known, that the event caused or may cause such delay or violation. In this notice, Defendants shall reference this Paragraph of this Consent Decree and describe the anticipated length of time that the delay or violation may persist, the cause or causes of the delay or violation, all measures taken or to be taken by Defendants to prevent or minimize the delay or violation, the schedule by which Defendants propose to implement those measures, and Defendants’ rationale for attributing a delay or violation to a Force Majeure Event. Defendants shall adopt all reasonable measures to avoid or minimize such delays or violations. Defendants shall be deemed to know of any circumstance which Defendants or any entity controlled by Defendants knew or should have known.

160. Failure to Give Notice. If Defendants materially fail to comply with the notice requirements of this Section, the Plaintiffs may void Defendants' claim for Force Majeure as to the specific event for which Defendants have failed to comply with such notice requirement.

161. Plaintiffs' Response. The Plaintiffs shall notify Defendants in writing regarding Defendants' claim of Force Majeure as soon as reasonably practicable. If the Plaintiffs agree that a delay in performance has been or will be caused by a Force Majeure Event, the Parties shall stipulate to an extension of deadline(s) for performance of the affected compliance requirement(s) by a period equal to the delay actually caused by the event, or the extent to which Defendants may be relieved of stipulated penalties or other remedies provided under the terms of this Consent Decree. Such agreement shall be reduced to writing, and signed by all Parties. If the agreement results in a material change to the terms of this Consent Decree, an appropriate modification shall be made pursuant to Section XXII (Modification). If such change is not material, no modification of this Consent Decree shall be required.

162. Disagreement. If Plaintiffs do not accept Defendants' claim of Force Majeure, or if the Plaintiffs and Defendants cannot agree on the length of the delay actually caused by the Force Majeure Event, or the extent of relief required to address the delay actually caused by the Force Majeure Event, the matter shall be resolved in accordance with Section XV (Dispute Resolution) of this Consent Decree.

163. Burden of Proof. In any dispute regarding Force Majeure, Defendants shall bear the burden of proving that any delay in performance or any other violation of any requirement of this Consent Decree was caused by or will be caused by a Force Majeure Event. Defendants shall also bear the burden of proving that Defendants gave the notice required by this Section and the burden of proving the anticipated duration and extent of any delay(s) attributable to a

Force Majeure Event. An extension of one compliance date based on a particular event may, but will not necessarily, result in an extension of a subsequent compliance date.

164. Events Excluded. Unanticipated or increased costs or expenses associated with the performance of Defendants' obligations under this Consent Decree shall not constitute a Force Majeure Event.

165. Potential Force Majeure Events. The Parties agree that, depending upon the circumstances related to an event and Defendants' response to such circumstances, the kinds of events listed below are among those that could qualify as Force Majeure Events within the meaning of this Section: construction, labor, or equipment delays; Malfunction of a Unit or emission control device; unanticipated coal supply or pollution control reagent delivery interruptions; acts of God; acts of war or terrorism; and orders by a government official, government agency, other regulatory authority, or a regional transmission organization, acting under and authorized by applicable law, that directs Defendants to operate an AEP Eastern System Unit in response to a local or system-wide (state-wide or regional) emergency (which could include unanticipated required operation to avoid loss of load or unserved load).

Depending upon the circumstances and Defendants' response to such circumstances, failure of a permitting authority to issue a necessary permit in a timely fashion may constitute a Force Majeure Event where the failure of the permitting authority to act is beyond the control of Defendants and Defendants have taken all steps available to it to obtain the necessary permit, including, but not limited to: submitting a complete permit application; responding to requests for additional information by the permitting authority in a timely fashion; and accepting lawful permit terms and conditions after expeditiously exhausting any legal rights to appeal terms and conditions imposed by the permitting authority.

166. As part of the resolution of any matter submitted to this Court under Section XV (Dispute Resolution) of this Consent Decree regarding a claim of Force Majeure, the Plaintiffs and Defendants by agreement, or this Court by order, may in appropriate circumstances extend or modify the schedule for completion of work under this Consent Decree to account for the delay in the work that occurred as a result of any delay agreed to by the Plaintiffs or approved by the Court. Defendants shall be liable for stipulated penalties for their failure thereafter to complete the work in accordance with the extended or modified schedule (provided that Defendants shall not be precluded from making a further claim of Force Majeure with regard to meeting any such extended or modified schedule).

XV. DISPUTE RESOLUTION

167. The dispute resolution procedure provided by this Section shall be available to resolve all disputes arising under this Consent Decree, provided that the Party invoking such procedure has first made a good faith attempt to resolve the matter with the other Parties.

168. The dispute resolution procedure required herein shall be invoked by one Party giving written notice to the other Parties advising of a dispute pursuant to this Section. The notice shall describe the nature of the dispute and shall state the noticing Party's position with regard to such dispute. The Parties receiving such a notice shall acknowledge receipt of the notice, and the Parties in dispute shall expeditiously schedule a meeting to discuss the dispute informally not later than fourteen (14) days following receipt of such notice.

169. Disputes submitted to dispute resolution under this Section shall, in the first instance, be the subject of informal negotiations among the disputing Parties. Such period of informal negotiations shall not extend beyond thirty (30) days from the date of the first meeting among the disputing Parties' representatives unless they agree in writing to shorten or extend

this period. During the informal negotiations period, the disputing Parties may also submit their dispute to a mutually agreed upon alternative dispute resolution (ADR) forum if the Parties agree that the ADR activities can be completed within the 30-day informal negotiations period (or such longer period as the Parties may agree to in writing).

170. If the disputing Parties are unable to reach agreement during the informal negotiation period, the Plaintiffs shall provide Defendants with a written summary of their position regarding the dispute. The written position provided by Plaintiffs shall be considered binding unless, within forty-five (45) days thereafter, Defendants seek judicial resolution of the dispute by filing a petition with this Court. The Plaintiffs may respond to the petition within forty-five (45) days of filing. In their initial filings with the Court under this Paragraph, the disputing Parties shall state their respective positions as to the applicable standard of law for resolving the particular dispute.

171. The time periods set out in this Section may be shortened or lengthened upon motion to the Court of one of the Parties to the dispute, explaining the Party's basis for seeking such a scheduling modification.

172. 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.

173. As part of the resolution of any dispute under this Section, in appropriate circumstances the disputing Parties may agree, or this Court may order, an extension or modification of the schedule for the completion of the activities required under this Consent Decree to account for the delay that occurred as a result of dispute resolution. Defendants shall be liable for stipulated penalties for their failure thereafter to complete the work in accordance

with the extended or modified schedule, provided that Defendants shall not be precluded from asserting that a Force Majeure Event has caused or may cause a delay in complying with the extended or modified schedule.

174. The Court shall decide all disputes pursuant to applicable principles of law for resolving such disputes. In their initial filings with the Court under Paragraph 170, the disputing Parties shall state their respective positions as to the applicable standard of law for resolving the particular dispute.

XVI. PERMITS

175. Unless expressly stated otherwise in this Consent Decree, in any instance where otherwise applicable law or this Consent Decree requires Defendants to secure a permit to authorize construction or operation of any device contemplated herein, including all preconstruction, construction, and operating permits required under state law, Defendants shall make such application in a timely manner. Defendants shall provide Notice to Plaintiffs under Section XVIII (Notices), for each Unit that Defendants submit an application for any permit described in this Paragraph 175.

176. Notwithstanding the previous Paragraph, nothing in this Consent Decree shall be construed to require Defendants to apply for or obtain a PSD or Nonattainment NSR permit for physical changes in, or changes in the method of operation of, any AEP Eastern System Unit that would give rise to claims resolved by Paragraph 132 and 133, subject to Paragraphs 134 through 138, or Paragraphs 139 and 141 of this Consent Decree.

177. When permits are required as described in Paragraph 175, Defendants shall complete and submit applications for such permits to the appropriate authorities to allow time for all legally required processing and review of the permit request, including requests for additional

information by the permitting authorities. Any failure by Defendants to submit a timely permit application for any Unit in the AEP Eastern System shall bar any use by Defendants of Section XIV (Force Majeure) of this Consent Decree, where a Force Majeure claim is based on permitting delays.

178. 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 or limit has or will become part of a Title V permit, subject to the terms of Section XXVI (Conditional Termination of Enforcement Under Decree) of this Consent Decree.

179. Within three (3) years from the Date of Entry of this Consent Decree, and in accordance with federal and/or state requirements for modifying or renewing a Title V permit, Defendants shall amend any applicable Title V permit application, or apply for amendments to their Title V permits, to include a schedule for any Unit-specific performance, operational, maintenance, and control technology requirements established by this Consent Decree including, but not limited to, required emission rates or other limitations. For Units subject to a requirement to Retire, Retrofit, or Re-power, Defendants shall apply to modify, renew, or obtain any applicable Title V permit to include a schedule for any Unit-specific performance, operation, maintenance, and control technology requirements established by this Consent Decree including, but not limited to, required emission rates or other limitations, within (12) twelve months of making such election to Retire, Retrofit, or Re-power.

180. Within one (1) year from commencement of operation of each pollution control device to be installed, upgraded, and/or operated under this Consent Decree, Defendants shall apply to include the requirements and limitations enumerated in this Consent Decree into federally-enforceable non-Title V permits and/or site-specific amendments to the applicable state implementation plans to reflect all new requirements applicable to each Unit in the AEP Eastern System, the Plant-Wide Annual Rolling Average Tonnage Limitation for SO₂ at Clinch River, and the Plant-Wide Annual Tonnage Limitation for SO₂ at Kammer.

181. Defendants shall provide the United States with a copy of each application for a federally-enforceable non-Title V permit or amendment to a state implementation plan, as well as a copy of any permit proposed as a result of such application, to allow for timely participation in any public comment period.

182. Prior to termination of this Consent Decree, Defendants shall obtain enforceable provisions in their Title V permits for the AEP Eastern System that incorporate (a) any Unit-specific requirements and limitations of this Consent Decree, such as performance, operational, maintenance, and control technology requirements, (b) the Plant-Wide Annual Rolling Average Tonnage Limitation for SO₂ at Clinch River and the Plant-Wide Annual Tonnage Limitation for SO₂ at Kammer, and (c) the Eastern System-Wide Annual Tonnage Limitations for SO₂ and NO_x. If Defendants do not obtain enforceable provisions for the Eastern System-Wide Annual Tonnage Limitations for SO₂ and NO_x in such Title V permits, then the requirements in Paragraphs 86 and 67 shall remain enforceable under this Consent Decree and shall not be subject to termination.

183. If Defendants sell or transfer to an entity unrelated to Defendants (“Third-Party Purchaser”) part or all of Defendants’ Ownership Interest in a Unit in the AEP Eastern System,

Defendants shall comply with the requirements of Section XIX (Sales or Transfers of Operational or Ownership Interests) with regard to that Unit prior to any such sale or transfer unless, following any such sale or transfer, Defendants remain the holder of the Title V permit for such facility.

XVII. INFORMATION COLLECTION AND RETENTION

184. Any authorized representative of the United States, including attorneys, contractors, and consultants, upon presentation of credentials, shall have a right of entry upon the premises of any facility in the AEP Eastern System at any reasonable time for the purpose of:

- a. monitoring the progress of activities required under this Consent Decree;
- b. verifying any data or information submitted to the United States in accordance with the terms of this Consent Decree;
- c. obtaining samples and, upon request, splits of any samples taken by Defendants or their representatives, contractors, or consultants; and
- d. assessing Defendants' compliance with this Consent Decree.

185. Defendants shall retain, and instruct their contractors and agents to preserve, all non-identical copies of all records and documents (including records and documents in electronic form) now in their or their contractors' or agents' possession or control (with the exception of their contractors' copies of field drawings and specifications), and that directly relate to Defendants' performance of their obligations under this Consent Decree until six (6) years following completion of performance of such obligations. This record retention requirement shall apply regardless of any corporate document retention policy to the contrary.

186. All information and documents submitted by Defendants pursuant to this Consent Decree shall be subject to any requests under applicable law providing public disclosure of

documents unless (a) the information and documents are subject to legal privileges or protection or (b) Defendants claim and substantiate in accordance with 40 C.F.R. Part 2 that the information and documents contain confidential business information.

187. Nothing in this Consent Decree shall limit the authority of EPA to conduct tests and inspections at Defendants' facilities under Section 114 of the Act, 42 U.S.C. § 7414, or any other applicable federal or state laws, regulations, or permits.

XVIII. NOTICES

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

As to the United States:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, DC 20044-7611
DJ# 90-5-2-1-06893

and

Director, Air Enforcement Division
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
Ariel Rios Building [Mail Code 2242A]
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

and

Air Enforcement & Compliance Assurance Branch
U.S. EPA Region V
77 W. Jackson St.
Mail Code AE17J
Chicago, IL 60604

and

Air Protection Division Director
U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103

As to the State of Connecticut:

Office of the Attorney General
Environmental Department
P.O. Box 120
Hartford, Connecticut
06141-0120

As to the State of Maryland:

Frank Courtright
Program Manager
Air Quality Compliance Program
Maryland Department of the Environment
1800 Washington Blvd.
Baltimore, Maryland 21230
fcourtright@mde.state.md.us

As to the Commonwealth of Massachusetts:

Frederick D. Augenstern, Assistant Attorney General
Office of the Attorney General
1 Ashburton Place, 18th floor
Boston, Massachusetts 02108
fred.augenstern@state.ma.us

and

Douglas Shallcross, Esquire
Department of Environmental Protection
Office of General Counsel
1 Winter Street
Boston, Massachusetts 02108
Douglas.Shallcross@state.ma.us

As to the State of New Hampshire:

Director, Air Resources Division
New Hampshire Department of Environmental Services
29 Hazen Drive
Concord, New Hampshire 03302-0095

As to the State of New Jersey:

Kevin P. Auerbacher
Section Chief
Environmental Enforcement Section
R.J. Hughes Justice Complex
25 Market Street
P.O. Box 093
Trenton, New Jersey 08625-0093

As to the State of New York:

Robert Rosenthal
Assistant Attorney General
New York State Attorney General's Office
The Capitol
Albany, New York 12224

As to the State of Rhode Island:

Tricia K. Jedele
Special Assistant Attorney General
150 South Main Street
Providence, RI 02903
(401) 274-4400, Ext. 2400
tjedele@riag.ri.gov

As to the State of Vermont:

Environmental Division
Office of the Attorney General
109 State Street
Montpelier, Vermont 05609-1001

and

Director
Air Pollution Control Division
Department of Environmental Conservation
Agency of Natural Resources
Building 3 South
103 South Main Street
Waterbury, Vermont 05671-0402

As to the Citizen Plaintiffs:

Nancy S. Marks
Natural Resources Defense Council, Inc.
40 West 20th Street
New York, New York 10011
(212) 727-4414
nmarks@nrdc.org

and

Albert F. Ettinger
Environmental Law and Policy Center
35 East Wacker Dr. Suite 1300
Chicago, Illinois 60601-2110
(312) 673-6500
aettinger@elpc.org

As to Defendants:

Vice President, Environmental Services
American Electric Power Service Corporation
1 Riverside Plaza
Columbus, OH 43215
jmmcmanus@aep.com

and

General Counsel
American Electric Power
1 Riverside Plaza
Columbus, OH 43215
jbkeane@aep.com

189. All notifications, communications, or submissions made pursuant to this Section shall be sent as follows: (a) by overnight mail or overnight delivery service to the United States;

and (b) by electronic mail to all Plaintiffs, if practicable, but if not practicable, then by overnight mail or overnight delivery service to the States and Citizen Plaintiffs. All notifications, communications, and transmissions sent by overnight delivery service shall be deemed submitted on the date they are delivered to the delivery service.

190. Any Party may change either the notice recipient or the address for providing notices to it by serving all other Parties with a notice setting forth such new notice recipient or address.

XIX. SALES OR TRANSFERS OF OPERATIONAL OR OWNERSHIP INTERESTS

191. If Defendants propose to sell or transfer an Operational or Ownership Interest to an entity unrelated to Defendants (“Third Party”), they shall advise the Third Party in writing of the existence of this Consent Decree prior to such sale or transfer, and shall send a copy of such written notification to the Plaintiffs pursuant to Section XVIII (Notices) of this Consent Decree at least sixty (60) days before such proposed sale or transfer.

192. No sale or transfer of an Operational or Ownership Interest shall take place before the Third Party and Plaintiffs have executed, and the Court has approved, a modification pursuant to Section XXII (Modification) of this Consent Decree making the Third Party a party to this Consent Decree and jointly and severally liable with Defendants for all the requirements of this Decree that may be applicable to the transferred or purchased Interests.

193. This Consent Decree shall not be construed to impede the transfer of any Interests between Defendants and any Third Party so long as the requirements of this Consent Decree are met. This Consent Decree shall not be construed to prohibit a contractual allocation – as between Defendants and any Third Party – of the burdens of compliance with this Decree,

provided that both Defendants and such Third Party shall remain jointly and severally liable for the obligations of the Consent Decree applicable to the transferred or purchased Interests.

194. If the Plaintiffs agree, the Plaintiffs, Defendants, and the Third Party that has become a party to this Consent Decree pursuant to Paragraph 192, may execute a modification that relieves Defendants of liability under this Consent Decree for, and makes the Third Party liable for, all obligations and liabilities applicable to the purchased or transferred Interests. Notwithstanding the foregoing, however, Defendants may not assign, and may not be released from, any obligation under this Consent Decree that is not specific to the purchased or transferred Interests, including the obligations set forth in Section VIII (Environmental Mitigation Projects), Paragraphs 86 and 67, and Section IX (Civil Penalty). Defendants may propose and the Plaintiffs may agree to restrict the scope of the joint and several liability of any purchaser or transferee for any obligations of this Consent Decree that are not specific to the transferred or purchased Interests, to the extent such obligations may be adequately separated in an enforceable manner.

195. Defendants may propose and Plaintiffs may agree to restrict the scope of joint and several liability of any purchaser or transferee for any AEP Eastern System obligations to the extent such obligations may be adequately separated in an enforceable manner using the methods provided by or approved under Section XVI (Permits).

196. Paragraphs 191-195 of this Consent Decree do not apply if an Interest is sold or transferred solely as collateral security in order to consummate a financing arrangement (not including a sale-leaseback), so long as Defendants: (a) remain the operator (as that term is used and interpreted under the Clean Air Act) of the subject AEP Eastern System Unit(s); (b) remain

subject to and liable for all obligations and liabilities of this Consent Decree; and (c) supply Plaintiffs with the following certification within thirty (30) days of the sale or transfer:

“Certification of Change in Ownership Interest Solely for Purpose of Consummating Financing. We, the Chief Executive Officer and General Counsel of American Electric Power (“AEP”), hereby jointly certify under Title 18 U.S.C. Section 1001, on our own behalf and on behalf of AEP, that any change in AEP’s Ownership Interest in any AEP Eastern System Unit that is caused by the sale or transfer as collateral security of such Ownership Interest in such Unit(s) pursuant to the financing agreement consummated on [insert applicable date] between AEP and [insert applicable entity]: a) is made solely for the purpose of providing collateral security in order to consummate a financing arrangement; b) does not impair AEP’s ability, legally or otherwise, to comply timely with all terms and provisions of the Consent Decree entered in *United States, et al. v. American Electric Power Service Corp., et al.*, Civil Action No. C2-99-1250 (“AEP I”) and *United States, et al. v. American Electric Power Service Corp., et al.*, Civil Action Nos. C2-04-1098 and C2-05-360 (“AEP II”); c) does not affect AEP’s operational control of any Unit covered by that Consent Decree in a manner that is inconsistent with AEP’s performance of its obligations under the Consent Decree; and d) in no way affects the status of AEP’s obligations or liabilities under that Consent Decree.”

XX. EFFECTIVE DATE

197. The effective date of this Consent Decree shall be the Date of Entry.

XXI. RETENTION OF JURISDICTION

198. The Court shall retain jurisdiction of this case after the Date of Entry of this Consent Decree to enforce compliance with the terms and conditions of this Consent Decree and to take any action necessary or appropriate for its interpretation, construction, execution, modification, or adjudication of disputes. During the term of this Consent Decree, any Party to this Consent Decree may apply to the Court for any relief necessary to construe or effectuate this Consent Decree.

XXII. MODIFICATION

199. The terms of this Consent Decree may be modified only by a subsequent written agreement signed by the Plaintiffs and Defendants. Where the modification constitutes a material change to any term of this Decree, it shall be effective only upon approval by the Court.

XXIII. GENERAL PROVISIONS

200. This Consent Decree is not a permit. Compliance with the terms of this Consent Decree does not guarantee compliance with all applicable federal, state, or local laws or regulations. The limitations and requirements set forth herein do not relieve Defendants from any obligation to comply with other state and federal requirements under the Clean Air Act at any Units covered by this Consent Decree, including the Defendants' obligation to satisfy any state modeling requirements set forth in a state implementation plan.

201. This Consent Decree does not apply to any claim(s) of alleged criminal liability.

202. In any subsequent administrative or judicial action initiated by any of the Plaintiffs for injunctive relief or civil penalties relating to the facilities covered by this Consent Decree, Defendants shall not assert any defense or claim based upon principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, or claim splitting, or any other defense based upon the contention that the claims raised by any of the Plaintiffs in the subsequent proceeding were brought, or should have been brought, in the instant case; provided, however, that nothing in this Paragraph affects the validity of Paragraphs Paragraph 132 and 133, subject to Paragraphs 134 through 138, or Paragraphs 139 and 141.

203. Except as specifically provided by this Consent Decree, nothing in this Consent Decree shall relieve Defendants of their obligation to comply with all applicable federal, state, and local laws and regulations. Subject to the provisions in Section X (Resolution of Civil

Claims Against Defendants), nothing contained in this Consent Decree shall be construed to prevent or limit the rights of the Plaintiffs to obtain penalties or injunctive relief under the Act or other federal, state, or local statutes, regulations, or permits.

204. At any time prior to termination of this Consent Decree, Defendants may request approval from Plaintiffs to implement other control technology for SO₂ or NO_x than what is required by this Consent Decree. In seeking such approval, Defendants must demonstrate that such alternative control technology is capable of achieving pollution reductions equivalent to an FGD (for SO₂) or SCR (for NO_x) at the Units in the AEP Eastern System at which Defendants seek approval to implement such other control technology for SO₂ or NO_x. Approval of such a request is solely at the discretion of the Plaintiffs.

205. Nothing in this Consent Decree is intended to, or shall, alter or waive any applicable law (including but not limited to any defenses, entitlements, challenges, or clarifications related to the Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997)) concerning the use of data for any purpose under the Act generated either by the reference methods specified herein or otherwise.

206. Each limit and/or other requirement established by or under this Consent Decree is a separate, independent requirement.

207. Performance standards, emissions limits, and other quantitative standards set by or under this Consent Decree must be met to the number of significant digits in which the standard or limit is expressed. For example, an Emission Rate of 0.100 is not met if the actual Emission Rate is 0.101. Defendants shall round the fourth significant digit to the nearest third significant digit, or the third significant digit to the nearest second significant digit, depending upon whether the limit is expressed to three or two significant digits. For example, if an actual

Emission Rate is 0.1004, that shall be reported as 0.100, and shall be in compliance with an Emission Rate of 0.100, and if an actual Emission Rate is 0.1005, that shall be reported as 0.101, and shall not be in compliance with an Emission Rate of 0.100. Defendants shall report data to the number of significant digits in which the standard or limit is expressed.

208. This Consent Decree does not limit, enlarge, or affect the rights of any Party to this Consent Decree as against any third parties.

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

210. Except for Citizen Plaintiffs, each Party to this action shall bear its own costs and attorneys' fees. Defendants shall reimburse the Citizen Plaintiffs' attorneys' fees and costs, pursuant to 42 U.S.C. § 7604(d), and the agreement between counsel for Defendants and Citizen Plaintiffs within thirty (30) days of the Date of Entry of this Consent Decree.

XXIV. SIGNATORIES AND SERVICE

211. Each undersigned representative of the Parties 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 to this document the Party he or she represents.

212. This Consent Decree may be signed in counterparts, and such counterpart signature pages shall be given full force and effect.

213. Each Party hereby 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 Rule 4 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons.

XXV. PUBLIC COMMENT

214. The Parties agree and acknowledge that final approval by the United States and the entry of this Consent Decree is subject to the procedures of 28 C.F.R. § 50.7, which provides for notice of lodging of this Consent Decree in the Federal Register, an opportunity for public comment, and the right of the United States to withdraw or withhold consent if the comments disclose facts or considerations which indicate that the Consent Decree is inappropriate, improper, or inadequate. The Defendants shall not oppose entry of this Consent Decree by this Court or challenge any provision of this Consent Decree unless the United States has notified the Defendants, in writing, that the United States no longer supports entry of the Consent Decree.

XXVI. CONDITIONAL TERMINATION OF ENFORCEMENT UNDER DECREE

215. Termination as to Completed Tasks. As soon as Defendants complete a construction project or any other requirement of this Consent Decree that is not ongoing or recurring, Defendants may, by motion to this Court, seek termination of the provision or provisions of this Consent Decree that imposed the requirement.

216. Conditional Termination of Enforcement Through the Consent Decree. After Defendants:

- a. have successfully completed construction, and have maintained Continuous Operation, of all pollution controls as required by this Consent Decree;

- b. have obtained final Title V permits (i) as required by the terms of this Consent Decree; (ii) that cover all Units in this Consent Decree; and (iii) that include as enforceable permit terms all of the Unit performance and other requirements specified in this Consent Decree; and
- c. certify that the date is later than December 31, 2022;

then Defendants may so certify these facts to the Plaintiffs and this Court. If the Plaintiffs do not object in writing with specific reasons within forty-five (45) days of receipt of Defendants' certification, then, for any Consent Decree violations that occur after the filing of notice, the Plaintiffs shall pursue enforcement of the requirements contained in the Title V permit through the applicable Title V permit and not through this Consent Decree.

217. Resort to Enforcement under this Consent Decree. Notwithstanding Paragraph 216, if enforcement of a provision in this Consent Decree cannot be pursued by a Party under the applicable Title V permit, or if a Consent Decree requirement was intended to be part of a Title V Permit and did not become or remain part of such permit, then such requirement may be enforced under the terms of this Consent Decree at any time.

XXVII. FINAL JUDGMENT

218. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment among the Parties.

SO ORDERED, THIS _____ DAY OF _____, 2007.

HONORABLE EDMUND A. SARGUS, JR.
UNITED STATES DISTRICT COURT JUDGE

HONORABLE GREGORY L. FROST
UNITED STATES DISTRICT COURT JUDGE

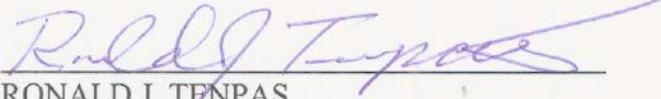
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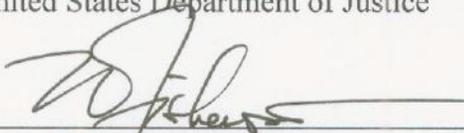
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American Electric Power Service Corp., et al.

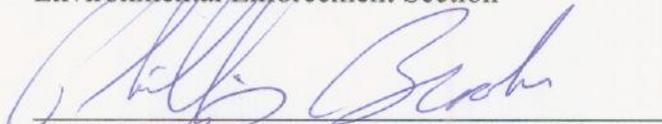
FOR THE UNITED STATES:



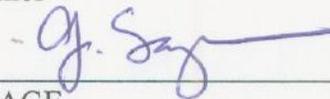
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Environmental and Natural Resources Division
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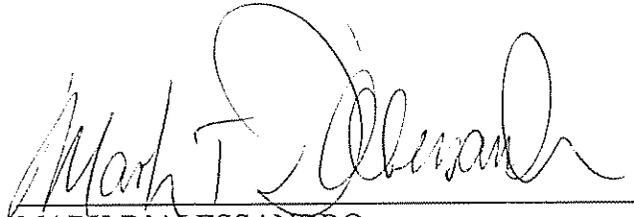
v.

American Electric Power Service Corp., et al.

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Signature Page for Consent Decree in:

United States et al.

v.

American Electric Power Service Corp., et al.

FOR THE UNITED STATES:



GRANTA Y. NAKAYAMA

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



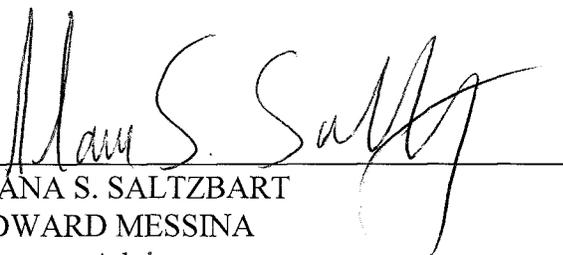
WALKER B. SMITH

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



ADAM M. KUSHNER

Acting Director, Air Enforcement Division
Office of Enforcement and Compliance Assurance
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United States et al.

v.

American Electric Power Service Corp., et al.



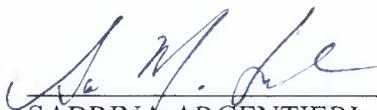
MARY A. GADE
Regional Administrator
Region 5
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ROBERT A. KAPLAN
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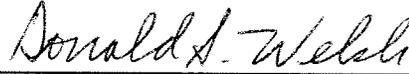
STEPHEN ROTHBLATT
Director
Air and Radiation Division
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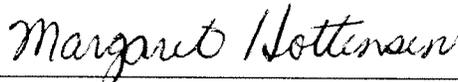
SABRINA ARGENTIERI
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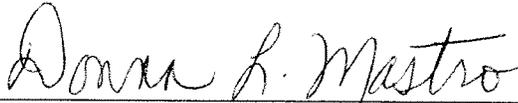
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v.
American Electric Power Service Corp., et al.



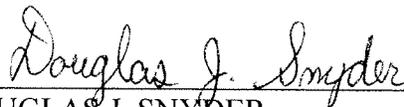
DONALD S. WELSH
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for
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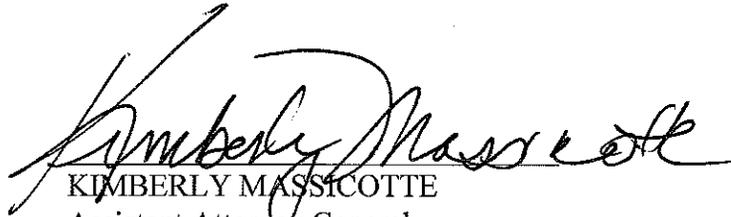
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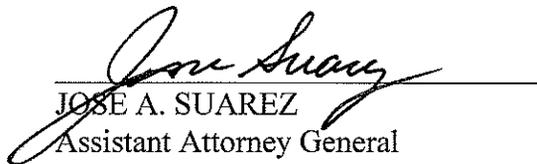
FOR THE STATE OF CONNECTICUT:



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Assistant Attorney General

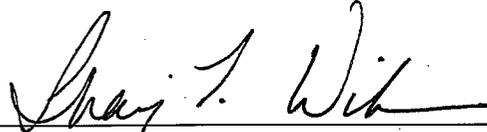
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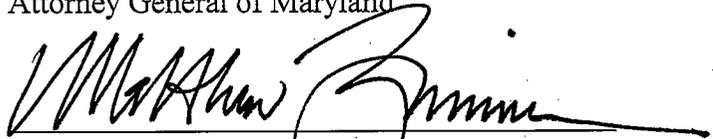
American Electric Power Service Corp., et al.

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Signature Page for Consent Decree in:

United States et al.

v.

American Electric Power Service Corp., et al.

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Signature Page for Consent Decree in:

United States et al.

v.

American Electric Power Service Corp., et al.

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Signature Page for Consent Decree in:

United States et al.

v.

American Electric Power Service Corp., et al.

FOR THE STATE OF NEW JERSEY:

Very Truly Yours,

ANNE MILGRAM
ATTORNEY GENERAL OF NEW JERSEY

By:


Jon C. Martin
Deputy Attorney General

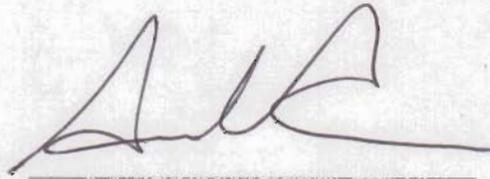
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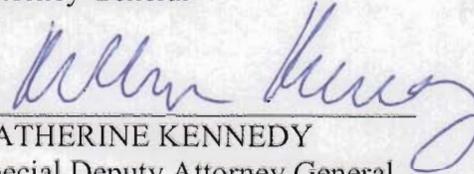
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American Electric Power Service Corp., et al.

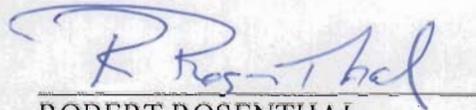
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Special Deputy Attorney General
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Signature Page for Consent Decree in:

United States et al.

v.

American Electric Power Service Corp., et al.

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Signature Page for Consent Decree in:

United States, et al.

v.

American Electric Power Service Corp., et al.

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STATE OF VERMONT



KEVIN O. LESKE
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Signature Page for Consent Decree in:

United States et al.

v.

American Electric Power Service Corp., et al.

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For Citizen Plaintiffs Sierra Club and
Natural Resources Defense Council, Inc.

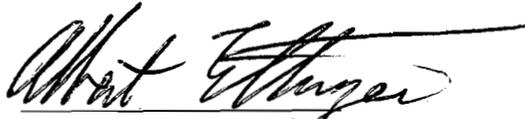
Signature Page for Consent Decree in:

United States et al.

v.

American Electric Power Service Corp., et al.

FOR CITIZEN PLAINTIFFS:



ALBERT F. ETTINGER

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CitizensAction Coalition of Indiana,
Hoosier Environmental Council,
Ohio Valley Environmental Coalition,
West Virginia Environmental Council,
Clean Air Council,
Izaak Walton League of America,
United States Public Interest Research Group,
National Wildlife Federation,
Indiana Wildlife Federation
and League of Ohio Sportsmen

Signature Page for Consent Decree in:

United States et al.

v.

American Electric Power Service Corp., et al.

FOR CITIZEN PLAINTIFFS:



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Local Counsel for Sierra Club and
Natural Resources Defense Council, Inc. Ohio Citizen
Action, Citizens Action Coalition of Indiana, Hoosier
Environmental Council, Ohio Valley
Environmental Coalition, West Virginia
Environmental Council, Clean Air Council,
Izaak Walton League of America, United States
Public Interest Research Group, National Wildlife
Federation, Indiana Wildlife Federation, and League
of Ohio Sportsmen

Signature Page for Consent Decree in:

United States et al

v.

American Electric Power Service Corp , et al.

**FOR DEFENDANTS AMERICAN ELECTRIC POWER SERVICE CORPORATION, ET
AL.:**



NICHOLAS K. AKINS

Executive Vice President – Generation

APPENDIX A
ENVIRONMENTAL MITIGATION PROJECTS

In compliance with and in addition to the requirements in Section VIII of this Consent Decree (Environmental Mitigation Projects), Defendants shall comply with the requirements of this Appendix to ensure that the benefits of the \$36 million in federally directed Environmental Mitigation Projects are achieved.

I. National Parks Mitigation

- A. Within 45 days from the Date of Entry, Defendants shall pay to the National Park Service the sum of \$2 million to be used in accordance with the Park System Resource Protection Act, 16 U.S.C. § 19jj, for the restoration of land, watersheds, vegetation, and forests using adaptive management techniques designed to improve ecosystem health and mitigate harmful effects from air pollution. This may include reforestation or restoration of native species and acquisition of equivalent resources and support for collaborative initiatives with state and local agencies and other stakeholders to develop plans to assure resource protection over the long-term. Projects will focus on one or more of the following Class I areas alleged in the underlying action to have been injured by emissions from Defendants facilities: Shenandoah National Park, Mammoth Cave National Park, and Great Smoky Mountains National Park.
- B. Payment of the amount specified in the preceding paragraph shall be made to the Natural Resource Damage and Assessment Fund managed by the United States Department of the Interior. Instructions for transferring funds will be provided to the Defendants by the National Park Service. Notwithstanding Section I.A of this Appendix, payment of funds by Defendants is not due until ten (10) days after receipt of payment instructions.
- C. Upon payment of the required funds into the Natural Resource Damage and Assessment Fund, Defendants shall have no further responsibilities regarding the implementation of any project selected by the National Park Service in connection with this provision of the Consent Decree.

II. Overall Environmental Mitigation Project Schedule and Budget

- A. Within 120 days of the Date of Entry, as further described below, Defendants shall submit plans to EPA for review and approval for completing the remaining \$34 million in federally directed Environmental Mitigation Projects specified in this Appendix over a period of not more than five (5) years from the Date of Entry. EPA will consult with the Citizen Plaintiffs, through their counsel, prior to approving or commenting on any proposed plan. The Parties agree that Defendants are entitled to spread their payments for Environmental Mitigation Projects evenly over the five-year period commencing upon the Date of Entry. Defendants are not, however, precluded from accelerating payments to better effectuate a proposed mitigation plan, provided however, Defendants shall not be

entitled to any reduction in the nominal amount of the required payments by virtue of the early expenditures. EPA may, but is not required to, approve a proposed Project budget that results in a back-loading of some expenditures. EPA shall determine prior to approval that all Projects are consistent with federal law.

- B. Defendants may, at their election, consolidate the plans required by this Appendix into a single plan.
- C. In addition to the requirements set forth below, Defendants shall submit within 120 days of the Date of Entry, a summary-level budget and Project time-line that covers all of the Projects proposed.
- D. Beginning March 31, 2008, and continuing on March 31 of each year thereafter until completion of each Project (including any applicable periods of demonstration or testing), Defendants shall provide the United States and Citizen Plaintiffs with written reports detailing the progress of each Project, including Project Dollars.
- E. Within 60 days following the completion of each Project required under Appendix A, Defendants shall submit to the United States and Citizen Plaintiffs a report that documents the date that the Project was completed, the results of implementing the Project, including the emission reductions or other environmental benefits achieved, and the Project Dollars expended by Defendants in implementing the Project.
- F. Upon approval of the plans required by this Appendix by EPA, Defendants shall complete the Environmental Mitigation Projects according to the approved plans. Nothing in this Consent Decree shall be interpreted to prohibit Defendants from completing Environmental Mitigation Projects before the deadlines specified in the schedule of an approved plan.

III. Acquisition and Restoration of Ecologically Significant Areas in Indiana, Kentucky, North Carolina, Ohio, Pennsylvania, Virginia, and West Virginia

- A. Within 120 days of the Date of Entry, and on each anniversary of the initial submission for the following four (4) years, Defendants shall submit a plan to EPA for review and approval, in consultation with the Citizen Plaintiffs, for acquisition and/or restoration of ecologically significant areas in Indiana, Kentucky, North Carolina, Ohio, Pennsylvania, Virginia, and West Virginia (“Land Acquisition and Restoration”). Defendants shall spend no less than a total of \$10 million in Project Dollars on Land Acquisition and Restoration over the five year period provided under this Appendix for completion of federally directed Environmental Mitigation Projects.

- B. Defendants' proposed plan shall:
1. Describe the proposed Land Acquisition and Restoration projects in sufficient detail to allow the reader to ascertain how each proposed action meets the requirements set out below. For purposes of this Appendix and Section VIII (Environmental Mitigation Projects) of this Consent Decree, land acquisition means purchase of interests in land, including fee ownership, easements, or other restrictions that run with the land that provide for perpetual protection of the acquired land. Restoration may include, by way of illustration, direct reforestation (particularly of tree species that may be affected by acidic deposition) and soil enhancement. Any restoration action must also incorporate the acquisition of an interest in the restored lands sufficient to ensure perpetual protection of the restored land. Any proposal for acquisition of land must identify fully all owners of the interests in the land. Every proposal for acquisition of land must identify the ultimate holder of the interests to be acquired and provide a basis for concluding that the proposed holder of title is appropriate for long-term protection of the ecological or environmental benefits sought to be achieved through the acquisition.
 2. Describe generally the ecological significance of the area to be acquired or restored. In particular, identify the environmental/ecological benefits expected as a result of the proposed action. In proposing areas for acquisition and restoration, Defendants shall focus on those areas that are in most need of conservation action or that promise the greatest conservation return on investment.
 3. Describe the expected cost of the Land Acquisition and Restoration, including the fair market value of any areas to be acquired.
 4. Identify any person or entity other than Defendants that will be involved in the land acquisition or restoration action. Defendants shall describe the third-party's role in the action and the basis for asserting that such entity is able and suited to perform the intended role. For purposes of this Section of the Appendix, third-parties shall only include non-profits; federal, state, and local agencies; or universities. Any proposed third-party must be legally authorized to perform the proposed action or to receive Project Dollars.
 5. Include a schedule for completing and funding each portion of the project.
- C. Performance - Upon approval of the plan by EPA, after consultation with the Citizen Plaintiffs, Defendants shall complete the Land Acquisition and Restoration project according to the approved plan and schedule.

IV. Nitrogen Impact Mitigation in the Chesapeake Bay

- A. Within 120 days of Date of Entry, Defendants shall submit a plan to EPA for review and approval, in consultation with the Citizen Plaintiffs, for the mitigation of adverse impacts on the Chesapeake Bay associated with nitrogen (“Chesapeake Bay Mitigation Project”). Defendants shall spend no less than a total of \$3 million in Project Dollars on the Chesapeake Bay Mitigation Project.
- B. Defendant’s proposed plan shall:
1. Describe proposed Project(s) that reduce nitrogen loading in the Chesapeake Bay or otherwise mitigate the adverse effects of nitrogen in the Chesapeake Bay. Projects that may be approved include, by way of illustration, creation of forested stream buffers on agricultural land or other land cover to establish a “buffer zone” to keep livestock out of the adjoining waterway and to filter runoff before it enters the waterway.
 2. Describe generally the expected environmental benefit of the proposed Chesapeake Bay Mitigation Project. The key criteria for selection of components of the Project are the magnitude of the expected ecological/environmental benefit(s) in relation to the cost and the relative permanence of the expected benefit(s). Expected loadings benefits should be quantified to the extent practicable.
 3. Describe the expected cost of each element of the Chesapeake Bay Mitigation Project, including the fair market value of any interests in land to be acquired.
 4. Identify any person or entity other than Defendants that will be involved in any aspect of the Chesapeake Bay Mitigation Project. Defendants shall describe the third-party’s role in the action and the basis for asserting that such entity is able and suited to perform the intended role. For purposes of this Section of the Appendix, third-parties shall only include non-profits; federal, state, and local agencies; or universities. Any proposed third-party must be legally authorized to perform the proposed action or to receive Project Dollars.
 5. Include a schedule for completing and funding each portion of the Project.
- C. Performance - Upon approval of the plan for Chesapeake Bay Mitigation by EPA, Defendants shall complete the Project according to the approved plan and schedule.

V. Mobile Source Emission Reduction Projects

- A. Within 120 days of the Date of Entry, Defendants shall submit a plan to EPA for review and approval, in consultation with the Citizen Plaintiffs, for the completion of Projects to reduce emissions from Defendants' fleet of barge tugboats on the Ohio River, diesel trains at or near power plants, Defendants' fleet of motor vehicles in certain eastern states, and/or truck stops in certain eastern states ("Mobile Source Projects"). Defendants shall spend no less than a total of \$21 million in Project Dollars on one or more of the three Mobile Source Projects specified in this Section, in accordance with the plans for such Projects approved by EPA, after consultation with the Citizen Plaintiffs. The key criteria for selection of components of the Mobile Source Projects are the magnitude of the expected environmental benefit(s) in relation to the cost.
- B. Diesel Tug/Train Project
1. Defendants are among the leading barge operators in the country, with operations on the Ohio River, the Mississippi River, and the Gulf Coast. Barges are propelled by tugboats, which generally use a type of marine diesel fuel known as No. 2 distillate fuel oil. Tugboats that switch to ultra-low sulfur diesel fuel ("ULSD") reduce emissions of NO_x, PM, volatile organic compounds ("VOCs"), and other air pollutants. All marine diesel fuel must be ULSD by June 1, 2012, pursuant to EPA's Nonroad Diesel Rule (see "Control of Emissions of Air Pollution from Nonroad Diesel Engines and Fuels; Final Rule," 69 Fed. Reg. 38,958 (June 29, 2004)). Defendants also receive coal by diesel trains.
 2. As part of the plan for Mobile Source Projects, Defendants may elect to achieve accelerated emission reductions from their tugboat fleet on the Ohio River ("Ohio River Tug Fleet") and/or their diesel powered trains used at or near their power plants, as one of the three possible mobile source Projects under this Consent Decree ("Diesel Tug/Train Project").
 3. The Diesel Tug/Train Project shall require one or more of the following:
 - a. The accelerated retrofitting or re-powering of Tugs with engines that require the use of ULSD. Selection of this Project is expressly conditioned upon identification of satisfactory technology and an agreement between EPA and Defendants on how to credit Project Dollars towards this project.
 - b. The retrofitting or repowering of the marine engines in the Ohio River Tug Fleet with diesel oxidation catalysts ("DOCs"), diesel particulate filters ("DPFs"), or other equivalent advanced technologies that reduce emissions of PM and VOCs from marine engines in tugboats (collectively "DOC/DPFs"). Defendants shall only install DOCs/DPFs that have received applicable approvals or

verifications, if any, from the relevant regulatory agencies for reducing emissions from tugboat engines. Defendants must maintain any DOCs/DPFs installed as part of the Tug Project for the useful life of the equipment (as defined in the proposed Plan), even after the completion of the Tug Project. Project Dollars may be spent on DOCs/DPFs within 5 years of the Date of Entry, in accordance with the approved schedule for the mitigation projects in this Appendix.

- c. The accelerated use of ULSD for the Ohio River Tug Fleet, from the Date of Entry through January 1, 2012. Notwithstanding any other provision of this Consent Decree, including this Appendix, Defendants shall only receive credit for the incremental cost of ULSD as compared to the cost of the fuel Defendants would otherwise utilize.
 - d. Emission reduction measures for diesel powered trains. Such measures may include retro-fitting with, or conversion to, Multiple Diesel Engine GenSets that are EPA Tier III Off-Road certified; Diesel Electric Hybrid; Anti-idling controls/strategies and Auto Shut-Off capabilities. Selection of this Project is expressly conditioned upon identification of satisfactory technology and an agreement between EPA and Defendants on how to credit Project Dollars towards this project.
4. The proposed plan for the Diesel Tug/Train Project shall:
- a. Describe the expected cost of the project, including the costs for any equipment, material, labor costs, and the proposed method for accounting for the cost of each element of the Diesel Tug/Train Project, including the incremental cost of ULSD.
 - b. Describe generally the expected environmental benefit of the project, including any expected fuel efficiency improvements and quantify emission reductions expected.
 - c. Include a schedule for completing each portion of the Diesel Tug/Train Project.
5. Performance - Upon approval of the Diesel Tug/Train Project plan by EPA, Defendants shall complete the project according to the approved plan and schedule.

C. Hybrid Vehicle Fleet Project

1. AEP has a fleet of approximately 11,000 motor vehicles in the eleven states where it operates, including vehicles in Indiana, Ohio, Michigan, Virginia, West Virginia, and Kentucky. These motor vehicles are generally powered by conventional diesel or gasoline engines and include vehicles such as diesel “bucket” trucks. The use of hybrid engine technologies in Defendants’ motor vehicles, such as diesel-electric engines, will improve fuel efficiency and reduce emissions of NO_x, PM, VOCs, and other air pollutants.
2. As part of the plan for Mobile Source Projects, Defendants may elect to spend Project Dollars on the replacement of conventional motor vehicles in their fleet with newly manufactured Hybrid Vehicles (“Hybrid Vehicle Fleet Project”).
3. The proposed plan for the Hybrid Vehicle Fleet Project shall:
 - a. Propose the replacement of conventional gasoline or diesel powered motor vehicles (such as bucket trucks) with Hybrid Vehicles. For purposes of this subsection of this Appendix, “Hybrid Vehicle” means a vehicle that can generate and utilize electric power to reduce the vehicle’s consumption of fossil fuel. Any Hybrid Vehicle proposed for inclusion in the Hybrid Fleet Project shall meet all applicable engine standards, certifications, and/or verifications.
 - b. Provide for Hybrid Vehicles replacement in that portion of Defendants’ fleet in Indiana, Ohio, Michigan, West Virginia, Virginia, and/or Kentucky. Notwithstanding any other provision of this Consent Decree, including this Appendix, Defendants shall only receive credit toward Project Dollars for the incremental cost of Hybrid Vehicles as compared to the cost of a newly manufactured, similar motor vehicle.
 - c. Prioritize the replacement of diesel-powered vehicles in Defendants’ fleet.
 - d. Provide a method to account for the costs of the Hybrid Vehicles, including the incremental costs of such vehicles as compared to conventional gasoline or diesel motor vehicles.
 - e. Certify that Defendants will use the Hybrid Vehicles for their useful life (as defined in the proposed plan).
 - f. Include a schedule for completing each portion of the Project.

- f. Describe generally the expected environmental benefits of the Project and quantify emission reductions expected.
4. Performance - Upon approval of the plan for the Truck Stop Electrification Project by EPA, after consultation with the Citizen Plaintiffs, Defendants shall complete the Project according to the approved plan.

APPENDIX B

REPORTING REQUIREMENTS

I. Annual Reporting Requirements

In accordance with the dates specified below, for periods on and after the Date of Entry, Defendants shall submit annual reports to the United States, the States, and the Citizen Plaintiffs, electronically and in hard copy, as required by Paragraph 143 and certified as required by Paragraph 146. In such annual reports, Defendants shall include the following information:

A. Eastern System-Wide Annual Tonnage Limitations for SO₂ and NO_x

Beginning on March 31, 2010, for the Eastern System-Wide Annual Tonnage Limitations for NO_x, and March 31, 2011, for the Eastern System-Wide Annual Tonnage Limitations for SO₂, and annually thereafter, Defendants shall report the following information: (a) the total actual annual tons of the pollutant emitted from each Unit (or for Units vented to a common stack, from each combined stack) within the AEP Eastern System, as defined in Paragraph 7, during the prior calendar year; (b) the total actual annual tons of the pollutant emitted from the AEP Eastern System during the prior calendar year; (c) the difference, if any, between the applicable Eastern System-Wide Annual Tonnage Limitation for the pollutant in that calendar year and the amount reported in subparagraph (b); and (d) the annual average emission rate, expressed as a lb/mmBTU for NO_x, for each Unit within the AEP Eastern System and for the entire AEP Eastern System during the prior calendar year. Data reported pursuant to this subsection shall be based upon the CEMS data submitted to the Clean Air Markets Division.

B. Plant-Wide Annual Rolling Average Tonnage Limitation for SO₂ at Clinch River

Beginning on March 31, 2011, and continuing annually thereafter, Defendants shall report: (a) the actual tons of SO₂ emitted from all Units at the Clinch River plant on an annual rolling average basis as defined in Paragraphs 47 and 88 for the prior calendar year; and (b) the applicable Plant-Wide Annual Rolling Average Tonnage Limitation for SO₂ at the Clinch River plant for the prior calendar year. For calendar years other than 2010 and 2015, Defendants shall also report the 12-month rolling average emissions for each month.

C. Plant-Wide Tonnage Limitation for SO₂ at Kammer

Beginning on March 31, 2011, and continuing annually thereafter, Defendants shall report: (a) the actual tons of SO₂ emitted from all Units at the Kammer plant as specified in Paragraph 48 for the prior calendar year; and (b) the Plant-Wide Tonnage Limitation for SO₂ at the Kammer plant for that calendar year.

D. Reporting Requirements for Excess NO_x Allowances

1. Reporting Requirements for Unrestricted Excess NO_x Allowances

Beginning on March 31, 2010, and continuing annually through March 31, 2016, Defendants shall report the number of Unrestricted Excess NO_x Allowances available each year between 2009 through 2015, and how or whether such allowances were used so that Defendants account for each Unrestricted Excess NO_x Allowance for each year during 2009 through 2015. No later than March 31, 2016, Defendants shall report: (a) the cumulative number of unused Unrestricted Excess NO_x Allowances subject to surrender pursuant to Paragraph 75 and calculated pursuant to Paragraph 74, and (b) the total number of unused Unrestricted Excess NO_x Allowances that they surrendered.

2. Reporting Requirements for Restricted Excess NO_x Allowances

a. Beginning on March 31, 2010, and continuing annually through March 31, 2016, Defendants shall report: (a) the number of Restricted Excess NO_x Allowances available each year between 2009 through 2015; (b) the actual emissions from any New and Newly Permitted Unit during each year; (c) the actual NO_x emissions from the five natural gas plants listed in Paragraph 76 during each year; (d) the amount, if any, of Restricted Excess NO_x Allowances that are not subject to surrender each year because of Defendants' investment in renewable energy as defined in Paragraph 77 and the data supporting Defendants' calculation; and (e) the difference between the cumulative total of Restricted Excess NO_x Allowances available from each year and any prior year and the actual emissions reported under (b) and (c), above, for that year and any Restricted Excess NO_x Allowances not subject to surrender reported under (d), above. No later than March 31, 2016, Defendants shall report: (a) the cumulative number of unused Restricted Excess NO_x Allowances subject to surrender calculated pursuant to Paragraphs 76 and 77, and (b) the total number of unused Restricted Excess NO_x Allowances that they surrendered.

b. No later than March 31, 2017, and continuing annually thereafter, Defendants shall report: (a) the number of Restricted Excess NO_x Allowances available in the prior year; (b) the actual emissions from any New and Newly Permitted Unit during such year; (c) the actual emissions from the five natural gas plants listed in Paragraph 76 during such year; (d) the amount, if any, of Restricted Excess NO_x Allowances that are not subject to surrender for such year because of Defendants' investment in renewable energy as defined in Paragraph 77 and the data supporting Defendants' calculation; (e) the number of Restricted Excess NO_x Allowances subject to surrender for such year calculated pursuant to Paragraphs 76 and 77; and (f) the total number of unused Restricted Excess NO_x Allowances that they surrendered for such year.

E. Reporting Requirements for Excess SO₂ Allowances

Beginning on March 31, 2011, and continuing annually thereafter, Defendants shall report: (a) the number of Excess SO₂ Allowances subject to surrender calculated pursuant to Paragraph 93, and (b) the total number of Excess SO₂ Allowances that they surrendered.

F. Continuous Operation of Pollution Controls required by Paragraphs 68, 69, 87, and 102

On March 31 of the year following Defendants' obligation pursuant to this Consent Decree to commence Continuous Operation of an SCR, FGD, ESP, or Additional NO_x Pollution Controls, Defendants shall report the date that they commenced Continuous Operation of each such pollution control as required by this Consent Decree. Beginning on March 31, 2008, and continuing annually thereafter, Defendants shall report, for any SCR, FGD, ESP, or Additional NO_x Pollution Controls required to Continuously Operate during that year, the duration of any period during which that pollution control did not Continuously Operate, including the specific dates and times that such pollution control did not operate, the reason why Defendants did not Continuously Operate such pollution control, and the measures taken to reduce emissions of the pollutant controlled by such pollution control.

G. Installation of SO₂ and NO_x Pollution Controls

Beginning on March 31, 2008, and continuing annually thereafter, Defendants shall report on the progress of construction of NO_x and SO₂ pollution controls required by this Consent Decree including: (1) if construction is not underway, any available information concerning the construction schedule, including the dates of any major contracts executed during the prior calendar year, and any major components delivered during the prior calendar year; (2) if construction is underway, the estimated percent of installation as of the end of the prior calendar year, the current estimated construction completion date, and a brief description of completion of significant milestones during the prior calendar year, including a narrative description of the current construction status (e.g. foundations completed, absorber installation proceeding all material on-site, new stack erection completed, etc.); and (3) once construction is complete, the dates the equipment was placed in service and any acceptance testing was performed during the prior calendar year.

H. Installation and Operation of PM CEMS

Beginning on March 31, 2013, for Cardinal Units 1 and 2 and a third Unit identified pursuant to Paragraph 110, and continuing annually thereafter for all periods of operation of PM CEMS as required by this Consent Decree, Defendants shall report the data recorded by the PM CEMS, expressed in lb/mmBTU on a 3-hour rolling average basis in electronic format for the prior calendar year, in accordance with Paragraph 107.

I. Other SO₂ Measures

Commencing in the first annual report Defendants submit pursuant to Paragraph 143, and continuing annually thereafter, Defendants shall submit all data necessary to determine Defendants' compliance with the annual average coal content specified in the table in Paragraph 90.

J. 1-Hour Average NO_x Emission Rate and 30-Day Rolling Average Emission Rates for SO₂ and NO_x

1. Beginning on March 31 of the year following Defendants' obligation pursuant to this Consent Decree to first comply with an applicable 1-Hour Average NO_x Emission Rate and/or 30-Day Rolling Average Emission Rate for SO₂ and NO_x, and continuing annually thereafter, Defendants shall report all 1-Hour Average Emission Rate results and/or 30-Day Rolling Average Emission Rate results to determine compliance with such emission rate, as defined in Paragraph 4 or 5, as appropriate. Defendants shall also report: (a) the date and time that the Unit initially combusts any fuel after shutdown; (b) the date and time after startup that the Unit is synchronized with a utility electric distribution system; (c) the date and time that the fire is extinguished in a Unit; and (d) for the fifth and subsequent Cold Start Up Period that occurs within any 30-Day period, the earlier of the date and time that is either (i) eight hours after the unit is synchronized with a utility electric distribution system, or (ii) the flue gas has reached the SCR operational temperature range specified by the catalyst manufacturer.

2. Within the first report that identifies a 1-Hour Average NO_x Emission Rate or 30-Day Rolling Average Emission Rate for SO₂ or NO_x, Defendants shall include at least five (5) example calculations (including hourly CEMS data in electronic format for the calculation) used to determine the 1-Hour Average NO_x Emission Rate and the 30-Day Rolling Average Emission Rate for SO₂ or NO_x for five (5) randomly selected days. If at any time Defendants change the methodology used in determining the 1-Hour Average NO_x Emission Rate or the 30-Day Rolling Average Emission Rate for SO₂ or NO_x, Defendants shall explain the change and the reason for using the new methodology.

K. 30-Day Rolling Average Removal Efficiency for SO₂

1. Beginning on March 31 of the year following Defendants' obligation pursuant to this Consent Decree to first comply with a 30-Day Rolling Average Removal Efficiency, and continuing annually thereafter, Defendants shall report all 30-Day Rolling Average Removal Efficiency results to determine compliance with such removal efficiency as defined in Paragraph 6 or, for Conesville Units 5 and 6, as specified in Appendix C.

2. Within the first report that identifies a 30-Day Rolling Average Removal Efficiency for SO₂, Defendants shall include at least five (5) example calculations (including hourly CEMS data in electronic format for the calculation) used to determine the 30-Day Rolling Average Removal Efficiency for five (5) randomly selected days. If

at any time Defendants change the methodology used in determining the 30-Day Rolling Average Removal Efficiency, Defendants shall explain the change and the reason for using the new methodology.

L. PM Emission Rates

Beginning on March 31, 2010, for Cardinal Units 1 and 2, and beginning on March 31, 2013 for Muskingum River Unit 5, and continuing annually thereafter, Defendants shall report the PM Emission Rate as defined in Paragraph 51, for Cardinal Unit 1, Cardinal Unit 2, and Muskingum River Unit 5. For all such Units, Defendants shall attach a copy of the executive summary and results of any stack test performed during the calendar year covered by the annual report.

M. Environmental Mitigation Projects

1. Mitigation Projects to be Conducted by the States

Defendants shall report the disbursement of funds as required in Paragraph 127 of the Consent Decree in the next annual progress report that Defendants submit pursuant to Paragraph 143 following such disbursement of funds.

2. Appendix A Projects

Beginning March 31, 2008, and continuing on March 31 of each year thereafter until completion of each Project (including any applicable periods of demonstration or testing), Defendants shall provide the United States and Citizen Plaintiffs with written reports detailing the progress of each Project, including Project Dollars.

N. Other Unit becoming an Improved Unit

If Defendants decide to make an Other Unit an Improved Unit, Defendants shall so state in the next annual progress report they submit pursuant to Paragraph 143 after making such decision, and comply with the reporting requirements specified in Section I.G of this Appendix and any other reporting or notice requirements in accordance with the Consent Decree.

II. Deviation Reports

Beginning March 31, 2008, and continuing annually thereafter, Defendants shall report a summary of all deviations from the requirements of the Consent Decree that occurred during the prior calendar year, identifying the date and time that the deviation occurred, the date and time the deviation was corrected, the cause and any corrective actions taken for each deviation, if necessary, and the date that the deviation was initially reported under Paragraph 145. In addition to any express requirements in Section I, above, or in the Consent Decree, such deviations required to be reported include, but are not limited to, the following requirements: the 1-Hour Average NO_x Emission Rate, the

30-Day Rolling Average Emission Rates for SO₂ and NO_x, the 30-Day Rolling Average Removal Efficiency for SO₂, and the PM Emission Rate.

III. Submissions Pending Review

In each annual report Defendants submit pursuant to Paragraph 143, Defendants shall include a list of all plans or submissions made pursuant to this Consent Decree during the calendar year covered by the annual report, the date(s) such plans or submissions were submitted to one or more Plaintiffs for review and/or approval, and shall identify which, if any, are still pending review and approval by Plaintiffs upon the date of submission of the annual report.

IV. Other Information Necessary To Determine Compliance

To the extent that information not expressly identified above is necessary to determine Defendants' compliance with the requirements of this Consent Decree during a reporting period, and has not otherwise been submitted in accordance with the provisions of the Consent Decree, Defendants shall provide such information as part of the annual report required pursuant to Section XI of the Consent Decree.

APPENDIX C

MONITORING STRATEGY AND CALCULATION OF THE 30-DAY ROLLING AVERAGE REMOVAL EFFICIENCY FOR CONESVILLE UNITS 5 AND 6

I. Monitoring Strategy

1. The SO₂ monitoring system for Conesville Units 5 & 6 will consist of two separate FGD inlet monitors in each of the two FGD inlet ducts for each Unit, and one FGD outlet monitor in the combined flow from the outlets of the FGD modules for each Unit, prior to the common stack.
2. Due to space constraints and potential interferences, monitors are currently located in the inlet duct for one FGD module on each Unit and at the combined outlet from both FGD modules for each Unit prior to entering the stack using best engineering judgment.
3. On or before December 31, 2008, Defendants shall submit a monitoring plan to EPA for approval that will propose where to site and install an additional inlet monitor in each of the unmonitored FGD inlet ducts for each Unit, and include a requirement that Defendants submit a complete certification application for the Conesville Units 5 & 6 monitoring system to EPA and the state permitting authority.
4. The Monitoring Plan will incorporate the applicable procedures and quality assurance testing found in 40 C.F.R. Part 75, subject to the following:
 - a. The PS-2 siting criteria will not be applied to these monitoring systems; however, the majority of the procedures in Section 8.1.3.2 of PS-2 will be followed. Sampling of at least nine (9) sampling points selected in accordance with PS-1 will be performed prior to the initial RATA. If the resultant SO₂ emission rates for any single sampling point calculated in accordance with Equation 19.7 are all within 10% or 0.02 lb/mmBtu of the mean of all nine (9) sampling points, the alternative traverse point locations (0.4, 1.2, and 2.0 meters from the duct wall) will be representative and may be used for all subsequent RATAs.
 - b. The required relative accuracy test audit will be performed in accordance with the procedures of 40 C.F.R. Part 75, except that the calculations will be performed on an SO₂ emission rate basis (i.e., lb/mmBtu).
 - c. The criteria for passing the relative accuracy test audit will be the same criteria that 40 C.F.R. Part 75 requires for relative accuracy or alternative performance specification as provided for NO_x emission rates.

- d. “Diluent capping” (i.e., 5% CO₂) will be applied to the SO₂ emission rate for any hours where the measured CO₂ concentration rounds to zero.
- e. Results of quality assurance testing, data gathered by the inlet and outlet monitoring systems, and the resultant 30-day Rolling Average Removal Efficiencies for these monitoring systems are not required to be reported in the quarterly reports submitted to EPA’s Clean Air Markets Division for purposes of 40 C.F.R. Part 75. Results will be maintained at the facility and available for inspection, and the 30-day Rolling Average Removal Efficiency will be reported in accordance with the requirements of the Consent Decree and Appendix B. Equivalent data retention and reporting requirements will be incorporated into the applicable permits for these Units.
- f. Missing Data Substitution of 40 C.F.R Part 75 will not be implemented.
- g. Initial performance testing will be performed before the effective date of the 30-Day Rolling Average Removal Efficiency requirements, and the results will be reported to Plaintiffs as part of the annual report submitted in accordance with Appendix B.

II. Calculation of 30-Day Rolling Average Removal Efficiency

- 1. Removal efficiency shall be calculated by the equation:

$$[\text{SO}_2 \text{ emission rate}_{\text{Inlet}} - \text{SO}_2 \text{ emission rate}_{\text{Outlet}}] / \text{SO}_2 \text{ emission rate}_{\text{Inlet}} * 100$$

- 2. Inlet and outlet emission rates shall be calculated using the methodology specified in 40 C.F.R. Part 60 Appendix B – Method 19. Inlet emission rates will be based on the average of the valid recorded values calculated for each of the inlet FGD monitors at each Unit. Measurements are made on a wet basis, so Equation 19.7 will be utilized to determine the hourly SO₂ emission rate at each location. To make the conversion between the measured wet SO₂ and CO₂ concentrations and an emission rate in pounds per million BTU, an electronic Data System will perform Equation 19.7 using the SO₂ ppm conversion factor from Table 19-1 of Method 19 and the Fc factor for the applicable fuel (currently bituminous coal) in Table 19-2 of Method 19. The resulting equation will be:

$$\text{Emission rate (lb SO}_2\text{/mmBtu)} = 1.660 \times 10^{-7} * \text{SO}_2 \text{ (in ppm)} * \text{Fc} * 100 / \text{CO}_2 \text{ (in \%)}$$

- 3. The electronic data system will calculate the hourly average SO₂ and CO₂ concentration in accordance with 40 C.F.R. Part 75 quality control/quality assurance requirements and will compute and retain these SO₂ emission rates for every operating hour meeting the minimum data capture requirements in accordance with 40 C.F.R. Part 75. Prior to the

calculation of the SO₂ emission rate, hourly SO₂ and CO₂ concentrations will be rounded to the nearest tenth (i.e., 0.1 ppm or 0.1 % CO₂) and the resulting SO₂ emission rate will be rounded to the nearest thousandth (i.e., 0.001 lb/mmBtu).

4. From these hourly SO₂ emission rates, SO₂ removal efficiencies will be calculated for each hour when the Unit is firing fossil fuel, and the hourly SO₂ and CO₂ monitors meet the QA/QC requirements of Part 75. Hourly SO₂ removal efficiencies will be computed by taking the hourly inlet SO₂ emission rate minus the outlet SO₂ emission rate, dividing the result by inlet SO₂ emission rate and multiplying by 100. The resulting removal efficiency will be rounded to the nearest tenth (i.e., 95.1%). Daily SO₂ removal efficiencies will be calculated by taking the sum of Hourly SO₂ removal efficiencies and dividing by the number of valid monitored hours for each Operating Day. The resulting daily removal efficiencies will be rounded to the nearest tenth (i.e., 95.1%).
5. The 30-Day Rolling Average Removal Efficiency will be computed by taking the current Operating Day's daily SO₂ removal efficiency (as described in Paragraph 4 of this Appendix C) plus the previous 29 Operating Days' daily SO₂ removal efficiency, and dividing the sum by 30. In the event that a daily SO₂ removal efficiency is not available for an Operating Day, Defendants shall exclude that Operating Day from the calculation of the 30-Day Rolling Average Removal Efficiency. The resulting 30-day Rolling Average Removal Efficiency will be rounded to the nearest tenth of a percent (i.e., a value of 95.04% rounds down to 95.0%, and a value of 95.05% rounds up to 95.1%).

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Virginia Electric and Power Company
Consent Decree

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UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF VIRGINIA

_____)
UNITED STATES OF AMERICA,)
STATE OF NEW YORK,)
STATE OF NEW JERSEY,)
STATE OF CONNECTICUT,)
COMMONWEALTH OF VIRGINIA))
STATE OF WEST VIRGINIA)
)
Plaintiffs,) CIVIL ACTION NO.
)
v.)
)
VIRGINIA ELECTRIC AND)
POWER COMPANY,)
)
Defendant.)
_____)

CONSENT DECREE

WHEREAS Plaintiff, the United States of America (“the United States”), on behalf of the United States Environmental Protection Agency (“EPA”), has filed a Complaint alleging that Defendant, Virginia Electric and Power Company (“VEPCO”), commenced construction of major modifications of major emitting facilities in violation of the Prevention of Significant Deterioration (“PSD”) requirements at Part C of the Clean Air Act (“Act”), 42 U.S.C. §§ 7470-7492;

WHEREAS on April 24, 2000, EPA issued a Notice of Violation (“NOV”) to VEPCO with respect to certain alleged violations of PSD;

WHEREAS Plaintiff, the State of New York, filed a complaint against VEPCO on July

20, 2000, alleging violations of the Act at VEPCO's Mount Storm Power Station located in northeastern West Virginia;

WHEREAS Plaintiff, the State of Connecticut, has issued VEPCO a notice of intent to sue, alleging violations of the Act and also has filed a complaint alleging violations of the Act at certain VEPCO electric generating units;

WHEREAS Plaintiff, the State of New Jersey, has issued to VEPCO a notice of intent to sue, alleging violations of the Act and also filed a complaint alleging violations of the Act at certain VEPCO electric generating units;

WHEREAS Plaintiff the Commonwealth of Virginia is filing a Motion for Leave to Intervene and Complaint in Intervention alleging that VEPCO may have violated Virginia's air pollution regulations found at 9 VAC 50-80-1700, *et seq.*, "Permits for Major Stationary Sources and Major Modifications Locating in Prevention of Significant Deterioration Areas," at one or more of its coal-fired generating units located in Virginia and that such violations may recur or other similar violations may occur in the future;;

WHEREAS the Parties consent to intervention by the Commonwealth of Virginia;

WHEREAS Plaintiff the Commonwealth of Virginia has a significant interest in this litigation by reason of its aforesaid Complaint as well as by reason of: (1) the fact that a significant portion of the relief provided by this Decree will involve facilities located within Virginia and regulated by the Commonwealth and no other State, and (2) the fact that such relief will directly impact the issuance to the affected facilities of permits under the Commonwealth's program approved pursuant to Title V of the Clean Air Act;

WHEREAS, Section 10.1-1186.4 of the Code of Virginia specifically authorizes the Attorney General of Virginia to seek to intervene in pending federal enforcement actions such as this one brought by the United States through the Environmental Protection Agency.

WHEREAS Plaintiff the State of West Virginia is filing a Motion for Leave to Intervene and Complaint in Intervention alleging that VEPCO may have violated West Virginia's air pollution regulations found at 45CAR14, "Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration," at one or more of its coal-fired generating units located in West Virginia and that such violations may recur or other similar violations may occur in the future;

WHEREAS the Parties consent to intervention by the State of West Virginia;

WHEREAS Plaintiff the State of West Virginia has a significant interest in this litigation by reason of its aforesaid Complaint as well as by reason of: (1) the fact that a significant portion of the relief provided by this Decree will involve facilities located within West Virginia and regulated by the State of West Virginia and no other State, and (2) the fact that such relief will directly impact the issuance to the affected facilities of permits under the West Virginia program approved pursuant to Title V of the Clean Air Act;

WHEREAS, Section 22-1-6 (d)(3) of the West Virginia Code specifically authorizes the Secretary of the West Virginia Department of Environmental Protection to enforce the statutes or rules which the Department is charged with enforcing.

WHEREAS VEPCO, a large electric utility, responded in a constructive way to Plaintiffs' notices of intent to sue and the NOV and expended significant time and effort to develop and agree to the terms of settlement embodied in this Decree;

WHEREAS VEPCO asserts that installation and operation of the pollution controls required by this Decree will result in emission reductions beyond current regulatory requirements;

WHEREAS the steam electric generating units at VEPCO's Mount Storm Power Station qualified for alternative emission limitations under 40 CFR Section 76.10 because VEPCO demonstrated under the applicable standard that they were not capable of meeting the emissions limitations otherwise applicable under the Clean Air Act's Acid Rain Nitrogen Oxides Emission Reduction Program;

WHEREAS Plaintiffs and VEPCO disagree fundamentally over the nature and scope of modifications that may be made to steam electric generating units without implicating the New Source Review requirements (including PSD) under the Act and its regulations;

WHEREAS nothing in this Decree resolves or is intended to resolve those disagreements;

WHEREAS VEPCO has advised the United States and the Plaintiff States that VEPCO has entered into this Consent Decree in reliance on the expectation that EPA will continue to enforce the modification provisions of the Act's New Source Review program in substantially the same manner as set forth in the complaints filed herein;

WHEREAS VEPCO has been advised that the United States retains all of its discretion concerning whether and how to enforce the Clean Air Act against any person, nothing in this Consent Decree is intended to predict or impose enforcement activities on EPA or the United States, and that the obligations of VEPCO under this Consent Decree are not conditional on subsequent enforcement activities of the Federal government;

WHEREAS the Plaintiffs allege that their Complaints state claims upon which the relief can be granted against VEPCO under Sections 113, 167, or 304 of the Act, 42 U.S.C. §§ 7413, 7477, or 7604;

WHEREAS VEPCO has not answered any of the Complaints in light of the settlement memorialized in this Decree;

WHEREAS VEPCO has denied and continues to deny the violations alleged in the NOV and the Complaints; maintains that it has been and remains in compliance with the Act and is not liable for civil penalties or injunctive relief; and states that it is agreeing to the obligations imposed by this Decree solely to avoid the costs and uncertainties of litigation and to improve the environment;

WHEREAS VEPCO intends to comply with any applicable Federal or State Implementation Plans that result from the NO_x SIP Call (63 Fed. Reg. 57356 (1998)) separate and apart from the obligations imposed by this Decree, and such Federal or State Implementation Plans that may ultimately result from the NO_x SIP Call are not intended to be enforceable under this Decree, and instead are enforceable in accordance with their own terms and the laws pertaining to them;

WHEREAS the Plaintiffs and VEPCO agree that settlement of these actions is fair, reasonable, and in the best interest of the Parties and the public, and that entry of this Consent Decree without further litigation is the most appropriate means of resolving this matter;

WHEREAS the Plaintiffs and VEPCO have consented to entry of this Decree without the trial or other litigation of any allegation in the complaints;

NOW THEREFORE, without any admission of fact or law, and without any admission of

the violations alleged in the Complaints or NOV, it is hereby ORDERED, ADJUDGED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. Solely for purposes of entry and enforcement of this Decree, the parties agree that this Court has jurisdiction over the subject matter herein and over the Parties consenting hereto pursuant to 28 U.S.C. §§ 1331, 1345, 1355, and 1367 and pursuant to Sections 113 and 167 of the Act, 42 U.S.C. §§ 7413 and 7477, and also pursuant to 42 U.S.C. §7604(a). Venue is proper under Section 113(b) of the Act, 42 U.S.C. § 7413(b), and under 28 U.S.C. § 1391(b) and (c). VEPCO consents to and shall not challenge entry of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree. Except as expressly provided for herein, this Consent Decree shall not create any rights in any party other than the Plaintiffs and VEPCO. VEPCO consents to entry of this Decree without further notice.

II. APPLICABILITY

2. Scope. The provisions of this Consent Decree shall apply to and be binding upon – consistent with Section XXVIII (“Sale or Transfers of Ownership Interests”) – the Plaintiffs and VEPCO, including VEPCO's officers, employees, and agents solely in their capacities as such. Unless otherwise specified, each requirement on VEPCO under this Consent Decree shall become effective thirty days after entry of this Decree.
3. Notice to those Performing Decree-Mandated Work. VEPCO shall provide a copy of this

Decree to all vendors, suppliers, consultants, or contractors performing any of the work described in Sections IV through IX. Notwithstanding any retention of contractors, subcontractors or agents to perform any work required under this Consent Decree, VEPCO shall be responsible for ensuring that all work is performed in accordance with the requirements of this Consent Decree. In any action to enforce this Consent Decree, VEPCO shall not assert as a defense the failure of its employees, servants, agents, or contractors to take actions necessary to comply with this Decree, unless VEPCO establishes that such failure is delayed or excused under Section XXVI (“Force Majeure”).

III. DEFINITIONS

4. Every term expressly defined by this Section shall have the meaning given that term herein. Every other term used in this Decree that is also a term used under the Act or the regulations implementing the Act shall mean in this Decree what such terms mean under the Act or those regulations.

5. “30-Day Rolling Average Emission Rate” for a Unit means and is calculated by (A) summing the total pounds of the pollutant in question emitted from the Unit during an Operating Day and the previous twenty-nine (29) Operating Days; (B) summing the total heat input to the Unit in mmBTU during the Operating Day and during the previous twenty-nine (29) Operating Days; and (C) dividing the total number of pounds of pollutants emitted during the thirty (30) Operating Days by the total heat input during the thirty (30) Operating Days, and converting the resulting value to lbs/mmBTU. A new 30-Day Rolling Average Emission Rate shall be calculated for each new Operating Day. In calculating all 30-Day Rolling Average Emission

Rates VEPCO :

A. shall include all emissions and BTUs commencing from the time the Unit is synchronized with a utility electric distribution system through the time that the Unit ceases to combust fossil fuel and the fire is out in the boiler, except as provided by Subparagraph B, C, or D;

B. shall use the methodologies and procedures set forth in 40 C.F.R. Part 75;

C. may exclude emissions of NO_x and BTUs occurring during the fifth and subsequent Cold Start Up Period(s) that occur in any 30-Day period if inclusion of such emissions would result in a violation of any applicable 30-Day Rolling Average Emissions Rate, and if VEPCO has installed, operated and maintained the SCR in question in accordance with manufacturers' specifications and good engineering practices. A "Cold Start Up Period" occurs whenever there has been no fire in the boiler of a Unit (no combustion of any fossil fuel) for a period of six hours or more. The emissions to be excluded during the fifth and subsequent Cold Start Up Period(s) shall be the less of (1) those NO_x emissions emitted during the eight hour period commencing when the Unit is synchronized with a utility electric distribution system and concluding eight hours later or (2) those emitted prior to the time that the flue gas has achieved the SCR operational temperature as specified by the catalyst manufacturer; and

D. may exclude NO_x emissions and BTUs occurring during any period of malfunction (as defined at 40 C.F.R. 60.2) of the SCR.

6. "30-Day Rolling Average Removal Efficiency" means the percent reduction in the SO₂ Emissions Rate achieved by a Unit's FGD over a 30 Operating Day period, as further described by the terms of this Decree.

7. "Air Quality Control Region" means a geographic area designated under Section 107(c)

of the Act, 42 U.S.C. § 7407(c).

8. “Boiler Island” means a Unit’s (A) fuel combustion system (including bunker, coal pulverizers, crusher, stoker, and fuel burners); (B) combustion air system; (C) steam generating system (firebox, boiler tubes, and walls); and (D) draft system (excluding the stack), all as further described in “Interpretation of Reconstruction,” by John B. Rasnic U.S. EPA (November 25, 1986) and attachments thereto.
9. “Capital Expenditures” means all capital expenditures, as defined by Generally Accepted Accounting Principles (GAAP), as VEPCO applied GAAP to its Boiler Island expenditures for the calendar years 1995-2000. Excluded from “Capital Expenditure” is the cost of installing or upgrading pollution control devices and the cost of altering or replacing any portion of the Boiler Island if such alteration or replacement is required in accordance with good engineering practices to accomplish the installation or upgrading of a pollution control device to meet the requirements of this Decree.
10. “CEMS” or “Continuous Emission Monitoring System,” for obligations involving NO_x and SO₂ under this Decree, shall mean “CEMS” as defined in 40 C.F.R. Section 72.2 and installed and maintained as required by 40 C.F.R. Part 75.
11. “Clean Air Act” or “Act” means the Clean Air Act, 42 U.S.C. §§7401-7671q, and its implementing regulations.
12. “Completed,” when used in connection with Sections XI through XVII (Resolution of Certain Civil Claims) and with respect to a change or modification, means the time when the Unit subject to the change or modification has been returned to service and is capable of generating electricity.

13. “Connecticut” means the State of Connecticut.
14. “Consent Decree” or “Decree” means this Consent Decree and its Appendices A through C, which are incorporated by reference (Appendix A -- “Coal-Fired Steam-Electric Generating Units Constituting the VEPCO System”; Appendix B -- “Consent Decree Reporting Form”; and Appendix C -- “Mitigation Projects that Shall be Completed Under this VEPCO Consent Decree”).
15. “Defendant” means Virginia Electric and Power Company or VEPCO.
16. “Emission Rate” means the number of pounds of pollutant emitted per million BTU of heat input (“lb/mmBTU”), measured as required by this Consent Decree.
17. “EPA” means the United States Environmental Protection Agency.
18. “ESP” means electrostatic precipitator, a pollution control device for the reduction of PM.
19. “FGD” means a pollution control device that employs flue gas desulfurization technology to remove SO₂ from flue gas.
20. “Improved Unit” means, in the case of NO_x, a VEPCO System Unit scheduled under this Decree to be equipped with SCR and, in the case of SO₂, means a VEPCO System Unit scheduled under this Decree to be equipped with an FGD, or Possum Point Units 3 and 4 because of their conversion to natural gas, as listed in Appendix A of this Decree and any amendment thereto. A Unit may be an Improved Unit for one pollutant without being an Improved Unit for the other.
21. “KW” means a kilowatt, which is one thousand Watts or one thousandth of a megawatt (MW).

22. “lb/mmBTU” means the number of pounds of pollutant emitted per million British Thermal Units of heat input.
23. “MW” means megawatt or one million Watts.
24. “National Ambient Air Quality Standards” means national air quality standards promulgated pursuant to Section 109 of the Act, 42 U.S.C. § 7409.
25. “New York” means the State of New York.
26. “New Jersey” means the State of New Jersey.
27. “NOV” means the Notice of Violation issued by EPA to VEPCO, dated April 24, 2000.
28. “NO_x” means oxides of nitrogen, as further described by the terms of this Decree.
29. “NSR” means New Source Review and refers generally to the Prevention of Significant Deterioration and Non-Attainment provisions of Parts C and D of Subchapter I of the Act.
30. “Operating Day” for a coal-fired Unit means any calendar day on which such a Unit burns fossil fuel.
31. “Other Unit” means any Unit of the VEPCO System that is not an Improved Unit for the pollutant in question. A Unit may be an Improved Unit for NO_x and an Other Unit for SO₂ and vice versa.
32. “Ozone Season” means the five-month period from May 1 through September 30 of any year after 2004. For the year 2004, “Ozone Season” means the period from May 31, 2004, through September 30, 2004.
33. “Paragraph” means a provision of this Decree preceded by an Arabic number.
34. “Parties” means VEPCO, the United States, Virginia, West Virginia, New York, New Jersey, and Connecticut.

35. “Plaintiffs” means the United States, New York, New Jersey, Connecticut, Virginia, and West Virginia.

36. “PM” means total particulate matter as further described by the terms of this Decree.

37. “PM CEM” or “PM Continuous Emission Monitor” means equipment that samples, analyses, measures, and provides PM emissions data -- by readings taken at frequent intervals -- and makes an electronic or paper record of the PM emissions measured.

38. “Pollution Control Upgrade Analysis” means the technical study, analysis, review, and selection of control technology recommendations (including an emission rate or removal efficiency) performed in connection with an application for a federal PSD permit, taking into account the characteristics of the existing facility. Except as otherwise provided in this Consent Decree, such study, analysis, review, and selection of recommendations shall be carried out in accordance with applicable federal and state regulations and guidance describing the process and analysis for determining Best Available Control Technology (BACT), as that term is defined in 40 C.F.R. §52.21(b)(12), including, without limitation, the December 1, 1987 EPA Memorandum from J. Craig Potter, Assistant Administrator for Air and Radiation, regarding Improving New Source Review (NSR) Implementation. Nothing in this Decree shall be construed either to: (A) alter the force and effect of statements known as or characterized as “guidance” or (B) permit the process or result of a “Pollution Control Upgrade Analysis” to be considered BACT for any purpose under the Act.

39. “ppm” means parts per million by dry volume, corrected to 15 percent O₂.

40. “Project Dollars” means VEPCO’s properly documented internal and external costs incurred in carrying out the dollar-limited projects identified in Section XXI (“Mitigation

Projects”) and Appendix C, as determined in accordance with Generally Accepted Accounting Principles (GAAP) (subject to review by the Plaintiffs), and provided that such costs comply with the Project Dollars and other requirements for such expenditures and payments set forth in Section XXI (“Mitigation Projects”) and Appendix C.

41. “PSD” means Prevention of Significant Deterioration, as that term is understood under Part C of Subchapter I of the Clean Air Act, 42 U.S.C. §§ 7470 - 7492 and 40 C.F.R. Part 52.

42. “PSD Increment” means the maximum allowable increase in a pollutant’s concentration over the baseline concentration within the meaning of Section 163 of the Act, 42 U.S.C. § 7473 and 40 C.F.R. § 51.166(c).

43. “SCR” means a pollution control device that employs selective catalytic reduction to remove NO_x from flue gas.

44. “Seasonal System-Wide Emission Rate” for a pollutant means the total pounds of the pollutant emitted by the VEPCO System during the period from May 1 through September 30 of each calendar year, divided by the total heat input (in mmBTU) to the VEPCO System during the period from May 1 through September 30 of the same calendar year. VEPCO shall calculate the Seasonal System-Wide Emission Rates from hourly CEMS data collected and analyzed in compliance with the 40 C.F.R. Part 75.

45. “Section” means paragraphs of this Decree collected under a capitalized heading that is preceded by a Roman Numeral.

46. “SO₂” means sulfur dioxide, as described further by the terms of this Decree.

47. “SO₂ Allowance” means the same as the definition of “allowance” found at 42 U.S.C. Section 7651a(3): “an authorization, allocated to an affected unit, by the Administrator [of EPA]

under [Subchapter IV of the Act] to emit, during or after a specified calendar year, one ton of sulfur dioxide.”

48. “Subparagraph” means any subdivision of a Paragraph identified by any number or letter.

49. “System-Wide Annual Emission Rate” for a pollutant shall mean the total pounds of the pollutant emitted by the VEPCO System during a calendar year, divided by the total heat input (in mmBTU) to the VEPCO System during the same calendar year. VEPCO shall calculate and analyze the System-Wide Annual Emission Rates from hourly CEM data collected in compliance with 40 C.F.R. Part 75.

50. “Title V Permit” means each permit required under Subchapter V of the Clean Air Act, 42 U.S.C. § 7661, et seq., for each electric generating plant that includes one or more Units that are part of the VEPCO System.

51. “VEPCO System” means all the Units listed here and described further in Appendix A: Bremono Power Station Units 3 and 4 (in Fluvanna County, Virginia); Chesapeake Energy Center Units 1, 2, 3, and 4 (near Chesapeake, Virginia); Chesterfield Power Station Units 3, 4, 5, and 6 (in Chesterfield County, Virginia); Clover Power Station Units 1 and 2 (in Halifax County, Virginia); Mount Storm Power Station Units 1, 2, and 3 (in northeastern West Virginia); North Branch Power Station Units 1A and 1B (in northeastern West Virginia); Possum Point Power Station Units 3 and 4 (in Northern Virginia, about twenty-five miles south of Washington, D.C.); and Yorktown Power Station Units 1 and 2 (in Yorktown, Virginia).

52. “Virginia” means the Commonwealth of Virginia.

53. “Watt” means a unit of power equal to one joule per second.

54. “West Virginia” means the State of West Virginia.

55. “Unit” means a generator, the steam turbine that drives the generator, the boiler that produces the steam for the steam turbine, the equipment necessary to operate the generator, turbine and boiler, and all ancillary equipment, including pollution control equipment or systems necessary for the production of electricity.

IV. NO_x EMISSION REDUCTIONS AND CONTROLS

56. Unit-Specific SCR Installations and Performance Requirements. VEPCO shall install an SCR on each Unit listed below, no later than the date specified below and, commencing on that date and continuing thereafter, operate each SCR to meet a 30-Day Rolling Average Emission Rate for NO_x of 0.100 lb/mmBTU for each listed Unit, except that VEPCO shall meet a 30-Day Rolling Average Emissions Rate of 0.110 lb/mmBTU for Mount Storm Units 1, 2 and 3:

Units on Which VEPCO Shall Install an SCR	Latest Date by which VEPCO Must: (A) Complete Installation of Fully Operational SCR, and (B) Start Operation that Meets 30-Day Rolling Average NO _x Emission Rate
Mount Storm Unit 1	January 1, 2008
Mount Storm Unit 2	January 1, 2008
Mount Storm Unit 3	January 1, 2008
Chesterfield Unit 4	January 1, 2013
Chesterfield Unit 5	January 1, 2012
Chesterfield Unit 6	January 1, 2011
Chesapeake Energy Center Unit 3	January 1, 2013
Chesapeake Energy Center Unit 4	January 1, 2013

57. VEPCO also shall use best efforts to operate each SCR required under this Decree whenever VEPCO operates the Unit served by the SCR, in accordance with manufacturers' specifications, good engineering practices, and VEPCO's operational and maintenance needs.

58. Year-Round Operation of SCRs. Beginning on January 1, 2008, and continuing thereafter, in accordance with the SCR installation schedule provided for in Paragraph 56 (Unit specific SCR Installation and Performance Requirements), every VEPCO System Unit served by an SCR required pursuant to Paragraph 56 shall operate year-round and achieve and maintain a NO_x 30-Day Rolling Average Emission Rate of no more than 0.100 lb/mmBTU, except that

Mount Storm Units 1, 2 and 3 shall achieve a NO_x 30-Day Rolling Average Emission Rate of no more than 0.110 lb/mmBTU.

59. VEPCO System: Interim Control of NO_x Emissions: 2004 through 2007. Commencing in 2004 and ending on December 31, 2007, VEPCO shall control NO_x emissions under the provisions of either Subparagraph (A) or (B) of this Paragraph. VEPCO may elect to comply with either Subparagraph in any calendar year and may change its election from year to year. VEPCO shall notify the Parties in writing on or before January 1 of each calendar year of whether it elects to comply with Subparagraph (A) or Subparagraph (B) for that year. If VEPCO fails to provide such notice by January 1 of any year, the last elected option for the prior calendar year shall be deemed to apply, and, if none, Subparagraph (B) shall be deemed to apply for such year. The requirements of this Paragraph shall terminate on December 31, 2007:

(A) During the following three time periods, VEPCO shall control emissions of NO_x by operating SCRs on VEPCO System Units of at least the mega-wattage capacities specified and shall achieve a 30-Day Rolling Average Emission Rate for NO_x of no greater than 0.100 lb/mmBTU at each such Unit, except that Mount Storm Units 1, 2 and 3 shall achieve a NO_x 30-Day Rolling Average Emission Rate of no more than 0.110 lb/mmBTU, as follows:

- (i) May 31, 2004, through April 30, 2005: Operate SCR on combined capacity of at least 375 MW on any combination of VEPCO System Units, but at least one Unit so controlled shall be at the Chesterfield Station.
- (ii) May 1, 2005, through April 30, 2006: Operate SCR on combined capacity of at least 875 MW on any combination of VEPCO System Units, but at

least one-half of the 875 MW so controlled shall be from a Unit or Units at the Chesterfield and/or Mt. Storm Stations.

- (iii) May 1, 2006, through December 31, 2007: Operate SCR on combined capacity of at least 1,450 MW on any combination of VEPCO System Units, but at least one-half of the 1,450 MW so controlled shall be from a Unit or Units at the Chesterfield and/or Mt. Storm Stations; or

(B) During the Ozone Seasons of the years 2004 through 2007, actual NO_x emissions from the VEPCO System shall not exceed a Seasonal System Wide Emission Rate greater than 0.150 lb/mmBTU. VEPCO's compliance with this limit shall be achieved, in part, by operating an SCR at the Mt. Storm and Chesterfield Stations.

60. VEPCO System NO_x Limits 2003 and thereafter: Declining, System-Wide Tonnage Caps. Actual, total emissions of NO_x from the VEPCO System in each calendar year, beginning in 2003 and continuing thereafter, shall not exceed the number of tons specified below:

Calendar Year	Total Permissible NO_x Emissions (in Tons) from VEPCO System
2003	104,000
2004	95,000
2005	90,000
2006	83,000
2007	81,000
2008	63,000
2009	63,000
2010	63,000
2011	54,000
2012	50,000
2013 and each year thereafter	30,250

61. VEPCO System-Wide, Annual Average NO_x Emission Rate. Commencing January 1, 2013, and continuing thereafter, actual NO_x emissions from the VEPCO System shall not exceed a System-Wide Annual Average Emission Rate of 0.150 lb/mmBTU.

62. NO_x Measurement and Calculation Procedures and Methods. In determining emission rates for NO_x, VEPCO shall use those applicable monitoring or reference methods specified in 40 C.F.R. Part 75.

63. Evaluation of NO_x Emission Limitations Based Upon Performance Testing. At any time after September 30, 2004, VEPCO may submit to the Plaintiffs a proposed revision to the applicable 30-Day Rolling Average Emissions Rate for NO_x on any VEPCO System Unit

equipped with SCR and subject to a 30-Day Rolling Average Emission Rate. To make a successful petition, VEPCO must demonstrate that it cannot consistently achieve the Decree-mandated NO_x emissions rate for the Unit in question, considering all relevant information, including but not limited to the past performance of the SCR, reasonable measures to achieve the designed level of performance of the SCR in question, the performance of other NO_x controls installed at the unit, and the operational history of the Unit. VEPCO shall include in such proposal an alternative 30-Day Rolling Average Emissions Rate. VEPCO also shall retain a qualified contractor to assist in the performance and completion of the petition for an alternate 30-Day Rolling Average Emissions Rate for NO_x. VEPCO shall deliver with each submission all pertinent documents and data that support or were considered in preparing such submission. If the Plaintiffs disapprove the revised emission rate, such disagreement is subject to Section XXVII (“Dispute Resolution”). VEPCO shall make any submission for any Unit under this Paragraph no later than fifteen months after the compliance date specified for that unit in Paragraph 56 (“Unit-Specific SCR Installations and Performance Requirements”).

V. SO₂ EMISSION REDUCTIONS AND CONTROLS

64. Installation and Construction of, and Improvements to, plus Removal Efficiencies Required on, FGDs Serving: Clover Units 1 and 2, Mount Storm Units 1, 2, and 3, and Chesterfield Units 5 and 6. VEPCO shall construct or improve -- as applicable -- FGDs for each Unit listed below, to meet or exceed the Removal Efficiencies for SO₂ specified below, in accordance with the schedules set out below. VEPCO shall operate each FGD so that each Unit shall continuously meet or exceed the SO₂ removal efficiency specified for it, as a 30-Day

Rolling Average Removal Efficiency, during the time periods described (Phases I and II):

Plant Name and Unit Number	Duration of Phase I Removal Efficiency Requirement	Phase I Minimum 30-Day Rolling Average Removal Efficiency (%)	Duration of Phase II Removal Efficiency Requirement	Phase II Minimum 30-Day Rolling Average Removal Efficiency (%)
Clover Unit 1	Meet 30-Day Rolling Average by 09/01/ 2003 and thereafter	95.0	Same as Phase I	Same as Phase I
Clover Unit 2	Meet 30-Day Rolling Average by 09/01/ 2003 and thereafter	95.0	Same as Phase I	Same as Phase I
Mt. Storm Unit 1	Meet 30-Day Rolling Average by 09/01/ 2003 and through 12/31/04	93.0	Jan. 1, 2005, and thereafter	95.0
Mt. Storm Unit 2	Meet 30-Day Rolling Average by 09/01/ 2003 and through 12/31/04	93.0	Jan. 1, 2005, and thereafter	95.0
Mt. Storm Unit 3	Meet 30-Day Rolling Average by 09/01/ 2003 and through 12/31/04	93.0	Jan. 1, 2005, and thereafter	95.0

Chesterfield Unit 5	Oct. 12, 2012, and thereafter	95.0	Same as Phase I	Same a Phase I
Chesterfield Unit 6	Jan. 1, 2010, and thereafter	95.0	Same as Phase I	Same as Phase I

65. Chesterfield FGD Construction. This Decree does not require VEPCO to begin: (A) physical construction on or begin significant equipment procurement for the FGD for Chesterfield Unit 6 prior to July 1, 2008, or (B) physical construction on or significant equipment procurement for the FGD for Chesterfield Unit 5 before January 1, 2010.

66. Option of Compliance with an Emission Rate after an FGD Demonstrates SO₂ 30-Day Rolling Average Removal Efficiency of at least 95.0%. Once a Unit (and its FGD) listed in Paragraph 64 demonstrates at least 95 percent removal efficiency for SO₂ for at least 180 consecutive days of operation without FGD bypass as specified in Paragraph 67 (omitting days on which the Unit did not combust fossil fuel) on a 30-Day Rolling Average basis, then VEPCO -- at its option and with written, prior notice to the Plaintiffs -- shall meet the following emission rate for SO₂ rather than the 30-Day Rolling Average Removal Efficiency specified in Paragraph 64:

Plant and Unit Eligible to Make 180-Day Demonstration	Maximum SO₂ 30-Day Rolling Average Emission Rate VEPCO shall meet in Lieu of 95.0%, 30-Day Rolling Average Removal Efficiency
Clover Unit 1	0.130
Clover Unit 2	0.130
Chesterfield Unit 5	0.130
Chesterfield Unit 6	0.130

Mount Storm Unit 1	0.150
Mount Storm Unit 2	0.150
Mount Storm Unit 3	0.150

67. Interim Mitigation of Mount Storm SO₂ Emissions While FGDs are Improved.

Notwithstanding the requirement to meet a specific percent removal or emission rate at Mount Storm Units 1, 2, or 3, in limited circumstances, VEPCO may operate such Units without meeting required Removal Efficiencies or Emission Rates in the case of FGD scrubber outages or downtime of the FGD scrubber serving each such Unit, if such operation complies with the following requirements. For this Paragraph, FGD outage or downtime “day” shall consist of a 24-hour block period commencing in the hour the FGD ceases to operate, and continuing in successive 24-hour periods until the hour the FGD is placed back into operation. Any period of less than 24 hours of FGD downtime shall count as a full “day”. For the FGD serving Unit 3, because it has two separately operating absorber vessels, outage or downtime may be measured in “1/2 day” (12-hour) increments – one for each absorber – but otherwise on the same basis as a “day” is counted for outage or downtime on the FGDs serving Units 1 and 2.

(A) In any calendar year from 2003 through 2004 for Mount Storm Unit 3, and in any calendar year from 2003 through 2004 for Mount Storm Units 1 and 2, VEPCO may operate Mount Storm Units 1, 2, or 3 in the case of outage or downtime of the FGD serving such Unit, if all of the following conditions are satisfied:

- (i) VEPCO does not operate Mount Storm Units 1, 2, or 3 during FGD outages or downtime on more than thirty (30) “days”, or any part thereof, in any calendar year; in the case of Mount Storm Unit 3, operation during an outage or

downtime in either of the two FGD absorber vessels serving the Unit shall count as operation during a “1/2” day of FGD outage or downtime;

(ii) All other available VEPCO System Units on-line at the Mount Storm Station and Clover Power Station are dispatched ahead of the Mount Storm Unit experiencing the FGD outage or downtime;

(iii) For each of the first twenty (20) “days” in a calendar year, or part thereof, that a Unit operates under this Paragraph VEPCO surrenders to EPA (using the procedure Section VI, Paragraph 72) one SO₂ Allowance, in addition to any surrender or possession of allowances required under Title IV or under any other provision of this Consent Decree, for each ton of SO₂ actually emitted in excess of the SO₂ emissions that would have occurred if coal containing 1.90 lb/mmBTU sulfur had been burned; and

(iv) For each “day”, or part thereof, that a Unit operates under this Paragraph beyond twenty (20) “days” in a calendar year, VEPCO shall surrender to EPA (using the procedure in Section VI, Paragraph 72) one SO₂ Allowance, in addition to any surrender or possession of allowances required under Title IV or under any other provision of this Consent Decree, for each ton of SO₂ actually emitted in excess of SO₂ emissions that would have occurred if coal containing 1.70 lb/mmBTU sulfur had been burned.

(B) In any calendar year from 2005 through 2007, VEPCO may operate Mount Storm Units 1, 2, or 3 in the case of FGD outage or downtime, if all of the following conditions are satisfied:

- (i) VEPCO does not operate Mount Storm Units 1 or 2 during FGD outages or downtime on more than thirty (30) “days”, or any part thereof, in any calendar year; and in the case of Mount Storm Unit 3, operation during an outage or downtime in either one of the two FGD absorber vessels serving the Unit shall count as operation during “1/2” day of FGD outage or downtime;
- (ii) All other available VEPCO System Units on-line at the Mount Storm Station and Clover Power Station are dispatched ahead of the Mount Storm Unit experiencing the FGD outage or downtime;
- (iii) For each of the first ten (10) “days”, or part thereof, in a calendar year that a Unit operates under this Paragraph VEPCO surrenders to EPA (using the procedure in Section VI, Paragraph 72) one SO₂ Allowance, in addition to any surrender or possession of allowances required under Title IV or under any other provision of this Consent Decree, for each ton of SO₂ actually emitted in excess of the SO₂ emissions that would have occurred if coal containing 1.90 lb/mmBTU sulfur had been burned;
- (iv) For each day that a Unit operates under this Paragraph from the eleventh through the twentieth “days”, or part thereof, in a calendar year, VEPCO shall surrender to EPA (using the procedure in Section VI, Paragraph 72) one SO₂ Allowance, in addition to any surrender or possession of allowances required under Title IV or under any other provision of this Consent Decree, for each of the tons of SO₂ actually emitted that equal the mass emissions difference between actual emissions and those that would have occurred if coal containing 1.70

lb/mmBTU sulfur had been used.; and

(v) For each day that a Unit operates under this Paragraph beyond twenty (20) “days”, or part thereof, in a calendar year, VEPCO shall surrender to EPA (using the procedure Section VI, Paragraph 72) one SO₂ Allowance, in addition to any surrender or possession of allowances required under Title IV or under any other provision of this Consent Decree, for each ton of SO₂ actually emitted in excess of SO₂ emissions that would have occurred if coal containing 1.50 lb/mmBTU sulfur had been burned;

(C) In any calendar year from 2008 through 2012, VEPCO may operate Mount Storm Units 1, 2, or 3 in the case of FGD outages or downtime, if all of the following conditions are satisfied:

(i) VEPCO does not operate Mount Storm Units 1, 2, or 3 during FGD outages or downtime on more than ten (10) “days”, or part thereof, in any calendar year; in the case of Mount Storm Unit 3, operation during an outage or downtime in either of the two FGD absorber vessels serving the Unit shall count as “1/2” day of operation during an FGD outage or downtime;

(ii) All other available VEPCO System Units on-line at the Mount Storm Station and Clover Station are dispatched ahead of the Mount Storm Unit experiencing the FGD outage or downtime; and

(iii) VEPCO surrenders to EPA (using the procedure of Section VI, Paragraph 72) one SO₂ Allowance, in addition to any surrender or possession of allowances required under Title IV or under any other provision of this Consent Decree, for

each ton of SO₂ actually emitted in excess of SO₂ emissions that would have occurred if coal with 1.50 lb/mmBTU sulfur had been burned.

68. Calculating 30-Day Rolling Average Removal Efficiency of a VEPCO System FGD.

The SO₂ 30-Day Rolling Average Removal Efficiency for a VEPCO System FGD shall be obtained and calculated using SO₂ CEMS data in compliance with 40 CFR Part 75 (from both the inlet and outlet of the control device) by subtracting the outlet 30-Day Rolling Average Emission Rate from the inlet 30-Day Rolling Average Emission Rate on each day the boiler operates, dividing that difference by the inlet 30-Day Rolling Average Emission Rate, and then multiplying by 100. A new 30-Day Rolling Average Removal Efficiency shall be calculated for each new Operating Day. In the case of FGDs serving Chesterfield Units 5 and 6 or Mount Storm Units 1, 2, or 3, if any flue gas emissions containing SO₂ did not pass through the inlet of the Unit's scrubber on a day when the Unit operated, VEPCO must account for, report on, and include any such emissions in calculating the FGD Removal Efficiency for that day and for every 30-Day Rolling Average of which that day is a part.

69. Commencing within 30 days after lodging of this Decree, VEPCO shall use best efforts to operate each such FGD at all times the Unit the FGD serves is in operation, provided that such FGD system can be operated consistent with manufacturers' specifications, good engineering practices and VEPCO's operational and maintenance needs. In calculating a 30-Day Rolling Average Removal Efficiency or a 30-Day Rolling Average Emission Rate for a Mount Storm Unit, VEPCO need not include SO₂ emitted by Unit while its FGD is shut down in compliance with Paragraph 67 ("Interim Mitigation of Mount Storm SO₂ Emissions While FGDs are Improved").

70. SO₂ Measurement Methods. VEPCO shall conduct all emissions monitoring for SO₂ in compliance with 40 C.F.R. Part 75.

VI. ANNUAL SURRENDER OF SO₂ ALLOWANCES

71. Annual Surrender. On or before March 31 of every year beginning in 2013 and continuing thereafter, VEPCO shall surrender 45,000 SO₂ Allowances. In each year, this surrender of SO₂ Allowances may be made either directly to EPA or by first transferring the SO₂ Allowances to another person in the manner provided for by this Decree.

72. Surrender Directly to EPA. If VEPCO elects to make an annual surrender directly to EPA, VEPCO shall, on or before March 31, 2013, and on or before March 31 of each year thereafter, submit SO₂ Allowance transfer request forms to EPA's Office of Air and Radiation's Clean Air Markets Division directing the transfer of 45,000 SO₂ Allowances held or controlled by VEPCO to the EPA Enforcement Surrender Account or to any other EPA Account to which the EPA may direct. As part of submitting these transfer requests, VEPCO shall irrevocably authorize the transfer of these Allowances and VEPCO shall also identify – by name of account and any applicable serial or other identification numbers or plant names – the source and location of the Allowances being surrendered, as well as any information required by the transfer request form.

73. Alternate Method of Surrender. If VEPCO elects to make an annual surrender of SO₂ Allowances to a person other than EPA, VEPCO shall include a description of such transfer in the next report submitted to Plaintiffs pursuant to Section XIX (“Periodic Reporting”) of this Consent Decree. Such report shall: (A) provide the identity of the third-party recipient(s) of the

SO₂ Allowances and a listing of the serial numbers of the transferred allowances; (B) include a certificate in compliance with Section XIX from the third-party recipient(s) stating that it (they) will not sell, trade, or otherwise exchange any of the allowances and will not use any of the allowances to meet any obligation imposed by any environmental law. No later than the next periodic report due 12 months after the first report of the transfer, VEPCO shall include in the Section XIX reports to Plaintiffs a statement that the third-party recipient(s) permanently surrendered the allowances to EPA within one year after VEPCO transferred the allowances to the third-party recipient(s). VEPCO shall not have finally complied with the allowance surrender requirements of this Paragraph until all third-party recipient(s) shall have actually surrendered the transferred allowances to EPA.

74. Changes to Decree-Mandated SO₂ Allowance Surrenders Beginning in 2013, and every year thereafter:

(A) If changes in Title IV of the Act or its implementing regulations decrease the number of SO₂ Allowances that are allocated to the VEPCO System Units for the year 2013 or any year thereafter, or if other applicable law either: (A) awards fewer than 127,363 SO₂ Allowances to the VEPCO System or (B) directs non-reusable surrender of SO₂ Allowances by VEPCO, then the number of SO₂ Allowances that VEPCO must surrender in such a year under this Section shall decrease by the same amount;

(B) If changes to Title IV of the Act or its implementing regulations result in (i) a reduction of SO₂ Allowances to the VEPCO System and (ii) any amount of SO₂ Allowances being auctioned-off, and the national SO₂ Allowance pool reflects a nationwide reduction in SO₂ Allowances of less than 35.6% from the 2010 national pool,

then the number of SO₂ Allowances that VEPCO must surrender in such year under this Section of this Decree shall decrease as follows:

$$45,000 - (127,363 \times \text{the percent reduction of the National pool})$$

Thus, if the national pool of SO₂ Allowances is reduced by greater than 35.6% from the 2010 national pool of SO₂ allowances, then VEPCO is not required to surrender any SO₂ Allowances under this Decree. But in no event shall VEPCO keep in excess of 82,363 SO₂ Allowances allocated in any year after 2012 to the VEPCO System.

(C) If changes to Title IV of the Act or its implementing regulations result in an increase of SO₂ Allowances to VEPCO, then VEPCO's annual obligation to surrender such Allowances under this Decree shall increase by the amount of such increase.

75. Use of SO₂ Allowances Related to VEPCO System Units Scheduled for FGDs under the Decree. For all SO₂ Allowances allocated to Mount Storm Unit 1 on or after January 1, 2003, Mount Storm Unit 2 on or after January 1, 2003, Chesterfield Unit 5 on or after October 1, 2012, and Chesterfield Unit 6 on or after January 1, 2010, VEPCO may use such SO₂ Allowances only to (A) meet the SO₂ Allowance surrender requirements established for the VEPCO System under this Decree; (B) meet the limits imposed on VEPCO under Title IV of the Act; or (C) meet any federal or state future emission reduction programs that use or rely on Title IV SO₂ Allowances for compliance, in whole or in part. However, if VEPCO operates a FGD serving Mount Storm Unit 1, Mount Storm Unit 2, Chesterfield Unit 5, or Chesterfield Unit 6 either: (A) earlier than required by a provision of this Decree or (B) at a 30-Day Rolling Average Removal Efficiency greater than, or a 30-Day Rolling Average Emissions Rate less than that required by this Decree, then VEPCO may use for any lawful purpose SO₂ Allowances equal to the number of tons of

SO₂ that VEPCO removed from the emission of those Units in excess of the SO₂ tonnage reductions required by this Decree, so long as VEPCO timely reports such use under Section XIX.

76. Other Limits on Use of SO₂ Allowances. VEPCO may not use the same SO₂ Allowance more than once. VEPCO may not use the SO₂ Allowances surrendered under this Section for any other purpose, including, but not limited to, any sale or trade of such Allowances for use by any person other than VEPCO or by any Unit not part of the VEPCO System, except as provided by Paragraph 73 (“Alternate Method of Surrender”). Other than the limits stated in this Decree on use of SO₂ Allowances or limits imposed by law, this Decree imposes no other limits on how VEPCO may use SO₂ Allowances.

77. No Entitlement Created. This Consent Decree does not entitle VEPCO to any allocation of SO₂ Allowances under the Act.

VII. PM EMISSION REDUCTIONS AND CONTROLS

78. Use of Existing PM Pollution Control Equipment. Commencing within 30 days after lodging of this Decree, VEPCO shall operate each ESP and baghouse within the VEPCO System to maximize PM emission reductions through the procedures established in this Paragraph. VEPCO shall (A) commence operation no later than two hours after commencement of combustion of any amount of coal in the controlled System Unit, except that this requirement shall apply to Bremo Power Station Units 3 and 4 commencing two hours after cessation of oil injection to the boiler, and provided that, for all ESP-equipped Units, “combustion of any amount of coal” shall not include combustion of coal that is the result of clearing out a Unit’s coal mills as the Unit is returned to service; (B) fully energize each available portion of each

ESP, except those ESP fields that have been out of service since at least January 1, 2000, consistent with manufacturers' specifications, the operational design of the Unit, and good engineering practices, and repair such fields that go out of service consistent with the requirements of this Paragraph; (C) maintain power levels delivered to the ESPs, consistent with manufacturers' specifications, the operational design of the Unit, and good engineering practices; and (D) continuously operate each ESP and baghouse in compliance with manufacturers' specifications, the operational design of the Unit, and good engineering practices. Whenever any element of any ESP that has been in service at any time since January 1, 2000 fails, does not perform in accordance with manufacturers' specifications and good engineering practices, or does not operate in accordance with the standards set forth in this Paragraph, VEPCO shall use best efforts to repair the element no later than the next available Unit outage appropriate to the repair task. The requirements of this Paragraph do not apply to Possum Point Units 3 and 4 until January 1, 2004, and do not apply at all when those Units burn natural gas.

79. ESP and Baghouse Optimization Studies and Recommendations. VEPCO shall complete an optimization study, in accordance with the schedule below, for each VEPCO System Unit served by an ESP or baghouse (except Possum Point Units 3 and 4, in light of their conversion to natural gas), which shall recommend: the best available maintenance, repair, and operating practices that will optimize ESP or baghouse availability and performance in accordance with manufacturers' specifications, the operational design of the Unit, and good engineering practices. These studies shall consider any ESP elements not in service prior to January 1, 2000, to the extent changes to such elements may be required to meet a PM Emission Rate of 0.030 lb/mmBTU. Any operating practices or procedures developed and approved under this

Paragraph shall become a part of the standard specified in (D) of Paragraph 78 (“Use of Existing PM Pollution Control Equipment”), above, and shall be implemented in compliance with that Paragraph. VEPCO shall retain a qualified contractor to assist in the performance and completion of each study. VEPCO shall submit each completed study to the United States for review and approval. (The United States will consult with the other Plaintiffs before completing such review). VEPCO shall implement the study’s recommendations within 90 days (or any longer time period approved by the United States) after receipt of approval by the United States. If VEPCO seeks more than 90 days to implement the recommendations contained in the study, then VEPCO shall include, as part of the study, the reasons why more than 90 days are necessary to implement the recommendations, e.g., the need to order or install parts or equipment, retain specialized expertise, or carry out training exercises. VEPCO shall maintain each ESP and baghouse as required by the study’s recommendations and shall supplement the ESP operational standard in (D) of Paragraph 78 to include any operational elements of the study and its recommendations. The schedule for completion and submission to the United States of the optimization studies shall be as follows:

Number and Choice of VEPCO System Units on Which VEPCO Shall Complete and Submit Optimization Studies	Number of Months After Lodging of the Decree that VEPCO Shall Submit Optimizations Studies to the U.S.
Four Units (including at least one Unit at Mount Storm or Chesterfield)	12 Months
Three More Units (including at least two at any one or more of the following VEPCO stations – Mount Storm, Chesterfield, and Bremono, if not already done)	24 Months

Two More Units (including at least two located at any one or more of the following VEPCO stations – Mount Storm, Chesterfield, and Brems, if not already done)	36 Months
Two More Units	48 Months
Two More Units	60 Months
All Other Units	72 Months

80. Alternative to Pollution Control Upgrade Analysis. Within 270 days after VEPCO receives the United States’ approval of the ESP optimization study for a VEPCO System Unit, VEPCO may elect to achieve for any Unit the objectives of, and thereby avoid, the Pollution Control Upgrade Analysis otherwise required by this Section by certifying to the United States, in writing, that: (A) the ESP shall continue to be operated and maintained in compliance with the approved optimization plan, pursuant to Paragraphs 78 and 79 of this Section, respectively, and (B) that the enforceable PM emission limit for this Unit shall be 0.030 lb/mmBTU, either commencing immediately or on and after the date required by this Decree for completion of FGD installations or improvements at that Unit (or after installation of any other FGD system VEPCO chooses to install at a Unit prior to 2013). Otherwise, VEPCO shall comply with Paragraph 82 (Pollution Control Upgrade Analysis, Construction of PM Controls, Compliance with New Emission Rate”), below.

81. PM Emission Rate Determination. The methods specified in this Paragraph shall be the reference methods for determining PM Emission Rates along with any other method approved by EPA under its authority to establish or approve such methods. The PM Emission Rates established under Paragraph 80 of this Section shall not apply during periods of “startup” and “shutdown” or during periods of control equipment or Unit malfunction, if the malfunction meets

the requirements of the Force Majeure Section of this Consent Decree. Periods of “startup” shall not exceed two hours after any amount of coal is combusted (except that for Brema Power Station Units 3 and 4, this two-hour period begins upon cessation of injection of oil into the boiler). Periods of “shutdown” shall only commence when the Unit ceases burning any amount of coal (or in the case of Brema Power Station Units 3 and 4, when any oil is introduced into the boiler). Coal shall not be deemed to be combusted if it is burned as a result of clearing out a Unit’s coal mills as the Unit is returned to service. The reference methods for determining PM Emission Rates shall be those specified in 40 C.F.R. Part 60, Appendix A, Method 5 or Method 17, using annual stack tests. VEPCO shall calculate PM Emission rates from the annual stack tests in accordance with 40 C.F.R. 60.8(f) and 40 C.F.R. 60.48a(b). The annual stack-testing requirement of this Paragraph shall be conducted as described in Paragraph 95 and may be satisfied by: (A) any annual stack tests VEPCO may conduct pursuant to its permits or applicable regulations from the States of Virginia and West Virginia if such tests employ reference test methods allowed under this Decree, or (B) installation and operation of PM CEMs required under this Decree.

82. Pollution Control Upgrade Analysis of PM, Construction of PM Controls, Compliance with New Emission Rate. For each VEPCO System Unit served by an ESP -- other than Possum Point Units 3 and 4 and those Units that meet the requirements of Paragraph 80 (“Alternative to Pollution Control Upgrade Analysis”) -- VEPCO shall complete a Pollution Control Upgrade Analysis and shall deliver the Analysis and supporting documentation to the United States for review and approval (after consultation with the other Plaintiffs). Notwithstanding the definition of Pollution Control Upgrade Analysis (Paragraph 38), VEPCO shall not be required to consider

in this Analysis: (A) the replacement of any existing ESP with a new ESP, scrubber, or baghouse, or (B) the installation of any supplemental pollution control device similar in cost to a replacement ESP, scrubber, or baghouse (on a total dollar-per-ton-of-pollution-removed basis).

83. VEPCO shall retain a qualified contractor to assist in the performance and completion of each Pollution Control Upgrade Analysis. Within one year of the United States' approval of the work and recommendation(s) made in the Analysis (or within a longer period of time properly sought by VEPCO and approved by the United States), VEPCO shall complete all recommendation(s). If VEPCO seeks more than one year from the date of the United States' approval of the Analysis to complete the work and recommendations called for by the Analysis, VEPCO must state the amount of additional time required and the reasons why additional time is necessary. Thereafter, VEPCO shall operate each ESP in compliance with the work and recommendation(s), including compliance with the specified Emission Rate. The schedule for completion and submission to the United States of the Pollution Control Upgrade Analyses for each Unit subject to this Paragraph shall be 12 months after the United States approves the ESP optimization study for each Unit pursuant to Paragraph 79 (unless VEPCO has elected to use the alternative to the Pollution Control Upgrade Analysis under Paragraph 80 for the Unit).

84. Performance Testing of Equipment Required by Pollution Control Upgrade Analysis. Between 6 and 12 months after VEPCO completes installation of the equipment called for by each approved Pollution Control Upgrade Analysis, VEPCO shall conduct a performance test demonstration to ensure that the approved PM emission limitation set forth in the Analysis can be consistently achieved in practice, including all requirements pertaining to proper operation and maintenance of control equipment. If the performance demonstration shows that the

approved control equipment cannot consistently meet the required PM emission limitation, VEPCO shall revise the Pollution Control Upgrade Analysis and resubmit it to the United States for review and approval of an alternative emissions limitation.

85. Installation and Operation of PM CEMs. VEPCO shall install, calibrate, operate, and maintain PM CEMs, as specified below. Each PM CEM shall be comprised of a continuous particle mass monitor measuring particulate matter concentration, directly or indirectly, on an hourly average basis and a diluent monitor used to convert results to units of lb/mmBTU. VEPCO may select any type of PM CEMS that meets the requirements of this Consent Decree. VEPCO shall maintain, in an electronic database, the hourly average emission values of all PM CEMS in lb/mmBTU. During Unit startups, VEPCO shall begin operating the PM CEMs in accordance with the standards set out in Paragraph 78(A) (“Use of Existing PM Pollution Control Equipment”), and VEPCO shall thereafter use reasonable efforts to keep each PM CEM running and producing data whenever any Unit served by the PM CEM is operating. VEPCO shall submit to EPA for review and approval a plan to install, calibrate and operate each PM CEM. VEPCO shall thereafter operate each PM CEM in accordance with the approved plan.

86. Installation of PM CEMs – First Round (Three Units). On or before December 1, 2003, VEPCO shall designate which three VEPCO System Units will have PM CEMs installed, in accordance with this Paragraph. No later than 12 months after entry of this Decree (or a longer time period approved by the United States, not to exceed 18 months after entry of this Decree) VEPCO shall install, calibrate, and commence operation of the following:

- (A) PM CEMs in the stacks that service at least two of the following VEPCO System Units: Mount Storm Units 1, 2, and 3, and Clover Units 1 and 2; and

(B) at least one additional PM CEM at any other ESP-equipped Unit in the VEPCO System, as selected by VEPCO.

If VEPCO seeks more than 12 months after entry of the Decree to complete installation and calibration of the PM CEMs, then VEPCO shall include a full explanation of the reasons why it requires more than 12 months after entry of the Decree to complete installation and calibration.

87. Consultation Before the First Round of PM CEMs. Prior to installing any PM CEMs, VEPCO and the United States shall meet, consult, and agree to adequate mechanisms for treating potential emission limitation exceedances that may occur during installation and calibration periods of the PM CEMs that may exceed applicable PM emission limitations. VEPCO and the United States shall invite the States of Virginia and West Virginia to participate in these discussions.

88. Option for Consultation Both Before and After Installation of the First or Second Round of PM CEMs. Either before the first or second round of PM CEMs installations, or after such PM CEMs are installed and producing data, or both, the United States and VEPCO shall meet, upon the request of either, to examine further the data that may or may not be generated by the PM CEMs. This issue should be addressed in light of the regulatory or permit-based mass emission limit set for the Unit before it was equipped with a PM CEM or any PM emission limitation established or to be established under this Section of the Decree, and the parties should take appropriate and acceptable actions to address any issues concerning periodic short term Unit process and control device upsets and/or averaging periods. In the event VEPCO or the United States call for such a meeting, the United States and VEPCO shall invite the States of Virginia and West Virginia to participate.

89. Demonstration that PM CEMs Are Infeasible. No earlier than 2 years after VEPCO has installed the first round of PM CEMs, VEPCO may attempt to demonstrate that it is infeasible to continue operating PM CEMs. As part of such demonstration, VEPCO shall submit an alternative PM monitoring plan for review and approval by the United States. The plan shall explain the basis for stopping operation of the PM CEMs and propose an alternative-monitoring plan. If the United States disapproves the alternative PM monitoring plan, or if the United States rejects VEPCO's claim that it is infeasible to continue operating PM CEMs, such disagreement is subject to Section XXVII ("Dispute Resolution").

90. "Infeasible to Continue Operating PM CEMs" – Standard. Operation of a PM CEM shall be considered "infeasible" if, by way of example, the PM CEMS: (A) cannot be kept in proper condition for sufficient periods of time to produce reliable, adequate, or useful data; or (B) VEPCO demonstrates that recurring, chronic, or unusual equipment adjustment or servicing needs in relation to other types of continuous emission monitors cannot be resolved through reasonable expenditures of resources; or (C) chronic and difficult Unit operation issues cannot be resolved through reasonable expenditure of resources; or (D) the data produced by the CEM cannot be used to assess PM emissions from the Unit or performance of the Unit's control devices. If the United States determines that VEPCO has demonstrated infeasibility pursuant to this Paragraph, VEPCO shall be entitled to discontinue operation of and remove the PM CEMs.

91. PM CEM Operations Will Continue During Dispute Resolution or Proposals for Alternative Monitoring. Until the United States approves an alternative monitoring plan or until the conclusion of any proceeding under Section XXVII ("Dispute Resolution"), VEPCO shall continue operating the PM CEMs. If EPA has not issued a decision regarding an alternative

monitoring plan within 90 days VEPCO may initiate action under the Dispute Resolution provisions (Section XXVII) under this Consent Decree.

92. Installation and Operation of PM CEMs – Second Round (6 Units). Unless VEPCO has been allowed to cease operation of the PM CEMs under Paragraph 89 (“Demonstration that PM CEMs Are Infeasible”), then VEPCO shall install, calibrate, and commence operation of PM CEMs that serve at least 6 more Units. In selecting the VEPCO System Units to receive PM CEMs under this second round, VEPCO must assure that Mount Storm Units 1, 2, and 3 and Clover Units 1 and 2 all receive PM CEMs if they have not already received PM CEMs under the first round. VEPCO may select the other VEPCO System Units to receive the required PM CEMs. The options for consultation regarding first round PM CEMs under Paragraphs 87 and 88 shall also be available for second round PM CEMs. VEPCO shall install PM CEMs that serve two VEPCO System Units in each of the years 2007, 2008, and 2009 under this second round of PM CEMs.

93. Common Stacks. Installation of a PM CEM on Mount Storm Units 1 and 2 or on Yorktown Units 1 and 2 shall count as installation of PM CEMs on 2 units in recognition of the common stack that serves these Units. VEPCO and the United States shall agree in writing on the method for apportioning emissions to the Units served by common stacks.

94. Data Use. Data from PM CEMs shall be used by VEPCO, at minimum, to monitor progress in reducing PM emissions. Nothing in this Consent Decree is intended to or shall alter or waive any applicable law (including, but not limited to, any defense, entitlements, challenges, or clarifications related to the Credible Evidence Rule (62 Fed. Reg. 8314 (Feb. 27, 1997))) concerning the use of data for any purpose under the Act, generated either by the reference

methods specified herein or otherwise.

95. Other Testing and Reporting Requirements. Commencing in 2004, VEPCO shall conduct a stack test for PM on each stack servicing each Unit in the VEPCO System (excluding Possum Point Units 3 and 4 in 2004, and in any subsequent year in which such Units have not burned coal). Such PM stack testing shall be conducted at least once per every four successive "QA Operating Quarters" (as defined in 40 C.F.R. § 72.2) and the results of such testing shall be submitted to the Plaintiffs as part of the periodic reporting under Section XIX ("Periodic Reporting") and Appendix B. Following installation of each PM CEM, VEPCO shall include all data recorded by PM CEMs, including submission in electronic format, if available, in the reports required by Section XIX.

VIII. POSSUM POINT UNITS 3 & 4:
FUEL CONVERSION, INSTALLATION OF CONTROLS

96. Fuel Conversion. VEPCO shall cease all combustion of coal at Possum Point Units 3 and 4 prior to May 1, 2003, in preparation for the conversion of Possum Point Units 3 and 4 to operate on natural gas, and shall not operate these Units again until that fuel conversion is complete and the Units are firing natural gas. VEPCO shall continuously operate such equipment to control NO_x emissions in compliance with State permitting requirements. VEPCO also shall limit the combined emissions from Possum Point Units 3 and 4 to 219 tons of NO_x in any 365 days, rolled daily, and determined as follows: Add the total NO_x emissions from Possum Point Units 3 and 4 on any given day, occurring after entry of this Decree, to the total NO_x emissions from those two Units for the preceding 364 consecutive days occurring after

entry of the Decree; the sum of those emissions may never exceed 219 tons. If VEPCO exceeds this 219-ton limit, VEPCO shall install and operate SCR at BACT levels within 3 years of the exceedance at either Yorktown Unit 1 (173 MW), or Yorktown Unit 2 (183 MW), or Bremono Unit 4 (170 MW). VEPCO may select which of these Units receives the SCR so long as the following are true for the Unit:

- (A) An SCR is not required under regulatory requirements for the Unit;
- (B) VEPCO had not planned to install an SCR on such Unit to help comply with any requirement as of the day of exceedance at Possum Point; and
- (C) The Unit is not required to meet an emission rate that would call for installation of SCR.

If these conditions are not met for any of the three listed Units, then VEPCO shall install the required SCR at the next largest Unit (in MW) within the VEPCO System that meets the conditions of subparagraphs (A) through (C).

97. Return to Combustion of Coal After Gas Conversion. If VEPCO uses coal rather than natural gas to operate Possum Point Units 3 or 4 on or after May 1, 2003, VEPCO shall install controls on such Unit(s) and meet the following requirements for NO_x, SO₂, and PM emissions, on or after May 1, 2003:

- (A) For NO_x, the more stringent of: (i) a 30-Day Rolling Average Emission Rate of 0.100 lb/mmBTU or (ii) the NO_x emission rate that would be LAER at the time that VEPCO returns to firing Possum Point Units 3 or 4 with coal;
- (B) For SO₂, a 30-Day Rolling Average Removal Efficiency of at least 95.0%; and
- (C) For PM, an Emission Rate of no more than 0.030 lb/mmBTU.

98. Measurements At Possum Point. The applicable methods and rules specified in other portions of this Decree for measuring emission rates and removal efficiencies for NO_x, SO₂, and PM also apply to the emission standards, as applicable, established under Paragraph 96 and 97 (“Fuel Conversion” and “Return to Combustion of Coal After Gas Conversion”) for Possum Point Units 3 and 4.

IX. INSTALLING ADDITIONAL CONTROLS ON VEPCO SYSTEM UNITS

99. If, prior to November 1, 2004, this Consent Decree is modified to require that VEPCO:

(A) Install additional NO_x or SO₂ pollution control devices on a VEPCO System Unit not scheduled for installation of such control device as part the original Decree;

(B) Commence full-time (year-round) operation of such control device no later than January 1, 2008; and

(C) Operate the control device and the Unit it serves in compliance with a performance standard of 0.100 lb/mmBTU 30-Day Rolling Average Emission Rate for NO_x or a 95.0% 30-Day Rolling Average Removal Efficiency for SO₂;

then the modification of the Consent Decree shall also provide that such Unit be treated as an Improved Unit as to the pollutant that has been controlled in compliance with this Section.

100. Reference Methods. The reference and monitoring methods specified in other portions of this Decree for measuring all emission rates and removal efficiencies for NO_x, SO₂, and PM also apply to the emission standards established under this Section.

X. PERMITS

101. Timely Application for Permits. Unless expressly stated otherwise in this Consent Decree, in any instance where otherwise applicable law or this Consent Decree require VEPCO to secure a permit to authorize constructing or operating any device under this Consent Decree, VEPCO shall make such application in a timely manner. Such applications shall be completed and submitted to the appropriate authorities to allow sufficient time for all legally required processing and review of the permit request. Failure to comply with this provision shall allow Plaintiffs to bar any use by VEPCO of Section XXVI (“Force Majeure”) where a Force Majeure claim is based upon permitting delays.

102. New Source Review Permits. This Consent Decree shall not be construed to require VEPCO to apply for or obtain a permit pursuant to the New Source Review requirements of Parts C and D of Title I of the Act for any work performed by VEPCO within the scope of the resolution of claims provisions of Sections XI through XVII (Resolution of Certain Civil

Claims).103. Title V Permits. Whenever VEPCO applies for a Title V permit or a revision to such a permit, VEPCO shall send, at the same time, a copy of such application to each Plaintiff. Also, upon receiving a copy of any permit proposed for public comment as a result of such application, VEPCO shall promptly send a copy of such proposal to each Plaintiff, thereby allowing for timely participation in any public comment opportunity.

104. Title V Permits Enforceable on Their Own Terms. Notwithstanding the reference to Title V permits in this Decree, the enforcement of such permits shall be in accordance with their own terms and the Act. The Title V permits shall not be directly enforceable under this Decree, though any term or limit established by or under this Decree shall be enforceable under this

Decree regardless of whether such term has or will become part of a Title V Permit, subject to the limits of Section XXX (“Conditional Termination of Enforcement, Continuation of Terms, and First Resort to Title V Permit”).

105. Consent Decree Requirements To Be Proposed for Inclusion in Title V Permits.

Whenever VEPCO applies for Title V Permit(s), or for amendment(s) to existing Title V Permit(s), for the purpose of including the requirements of this Decree in such permits, VEPCO shall include in such application all performance, operational, maintenance, and control technology requirements specified by or created under this Consent Decree, not only for particular Units in the VEPCO System but also for the VEPCO System itself – including, but not limited to, emission rates, removal efficiencies, allowance surrenders, limits on use of emission credits, and operation, maintenance and optimization requirements, unless otherwise limited by Sections XI through XVII. VEPCO shall notify all Plaintiffs of any applicable requirement within its Title V permit application that may be more stringent than the requirements of this Consent Decree.

106. Methods to be Used in Applying for Title V Permit Provisions Applicable to the

VEPCO System. VEPCO shall include provisions in any Title V permit application(s) submitted in accordance with Paragraph 105 (“Consent Decree Requirements To Be Proposed for Inclusion in Title V Permits”) that comply with this Consent Decree’s NO_x VEPCO System Declining Tonnage Cap (Section IV, Paragraph 60), the VEPCO System-Wide Annual Average Emission Rate for NO_x (Section IV, Paragraph 61), and the Annual Surrender of SO₂ Allowances from the

VEPCO System (Section VI, Paragraphs 71). In making such application, VEPCO shall use either the provisions listed below or any other method agreed to in advance by written stipulation of all the Parties and filed with this Court:

(A) For the VEPCO System declining NO_x cap in Section IV, Paragraph 61 (“VEPCO System NO_x Limits 2002 and thereafter: Declining, System-Wide Tonnage Caps”), each Unit in the VEPCO System shall be limited in perpetuity to a specified portion of the NO_x annual emissions cap that ultimately descends to 30,250 tons, provided the total of the VEPCO System declining tonnage caps for NO_x submitted for inclusion in the Title V permits shall be no greater for any year than the tonnage specified for each calendar year for the VEPCO System). The NO_x emission tons shall be allocated to each Unit within the VEPCO System. No Unit shall exceed its allocation except that VEPCO can trade NO_x emissions tons between Units within the VEPCO System in order to comply with any given Unit-specific allocation. Compliance with the NO_x Annual System-Wide Annual Average Emissions cap shall be determined each year by whether each Unit holds a sufficient number of NO_x emission tons allocated to it in the Title V permit, or acquired by it through trades with other Units in the VEPCO System, to cover the Unit’s actual, annual NO_x emissions; and

(B) For the System-Wide, Annual Average NO_x Emissions Rate specified in Section IV, Paragraph 61, (“VEPCO System-Wide, Annual Average NO_x Emission Rate”) VEPCO shall prepare a VEPCO System-Wide NO_x emissions BTU-weighted averaging plan for all the Units in the VEPCO System, and in doing so, shall use all the appropriate methods and procedures specified at 40 C.F.R. § 76.11 in preparing such a plan. As part

of that plan, VEPCO shall prepare an “alternative contemporaneous allowable annual emissions limitation” (in lb/mmBTU) for each Unit in the VEPCO System, as described by 40 C.F.R. § 76.11. After this allocation and establishment of an “alternative contemporaneous allowable annual emissions limitation,” VEPCO’s compliance with Paragraph 61 (“VEPCO System-Wide, Annual Average NO_x Emission Rate”) shall be determined in the manner described by 40 C.F.R. § 76.11, as applicable, and shall be based on whether each Unit meets the applicable “alternative contemporaneous allowable annual emissions limitation” for the NO_x emissions BTU weighted averaging plan; provided, however, that if any Unit(s) does not meet such emissions limitation, such Unit(s) shall still be in compliance if VEPCO shows that all the Units in the emissions averaging plan, in aggregate, do not exceed the BTU-weighted NO_x System-Wide Emissions Rate; and

(C) For the Annual Surrender of SO₂ Allowances required by Section VI, the annual SO₂ Allowance surrender requirement of 45,000 SO₂ Allowances shall either be divided up and allocated to specific Units of the VEPCO System or assigned to a single VEPCO System Unit – as VEPCO elects.

XI. RESOLUTION OF CERTAIN CIVIL CLAIMS OF THE UNITED STATES.

107. Claims Based on Modifications Occurring Before the Lodging of Decree. Entry of this Decree shall resolve all civil claims of the United States under either: (i) Parts C or D of Subchapter I of the Clean Air Act or (ii) 40 C.F.R. Section 60.14, that arose from any

modification commenced at any VEPCO System Unit prior to the date of lodging of this Decree, including but not limited to, those modifications alleged in the U.S. Complaint in this civil action or in the EPA NOV issued to VEPCO on April 24, 2000.

108. Claims Based on Modifications after the Lodging of Decree. Entry of this Decree also shall resolve all civil claims of the United States for pollutants regulated under Parts C or D of Subchapter I of the Clean Air Act and regulations promulgated as of the date of the lodging of this Decree, where such claims are based on a modification completed before December 31, 2015 and:

- A) commenced at any VEPCO System Unit after lodging of this Decree or
- B) that this Consent Decree expressly directs VEPCO to undertake.

The term “modification” as used in this Paragraph shall have the meaning that term is given under the Clean Air Act statute as it existed on the date of lodging of this Decree.

109. Reopener. The resolution of the civil claims of the United States provided by this Section is subject to the provisions of Section XII.

XII. REOPENING OF U.S. CIVIL CLAIMS RESOLVED BY SECTION XI

110. Bases for Pursuing Resolved Claims Across VEPCO System. If VEPCO:

- (A) Violates Paragraph 59(A) or (B) (VEPCO System-Wide, Interim Control of NOX Emissions, 2004 through 2007); or
- (B) Violates Paragraph 60 (VEPCO System-Wide NOX Tonnage Limits 2003 and thereafter: Declining, System-Wide Tonnage Caps); or

- (C) Violates Paragraph 61 (VEPCO System-Wide Average NOX Emission Rate) in any calendar year (or ozone season, as applicable); or
- (D) Fails by more than ninety days to complete installation of and commence timely year-round operation of any SCR or FGD required by Paragraphs 56 or 64 or Sections VIII or IX; or
- (E) Fails to limit VEPCO System SO2 emissions to 203,693 tons or less in each calendar year starting with 2005 and thereafter;

then the United States may pursue any claims at any VEPCO System Unit otherwise resolved under Section XI, where the modification(s) on which such claim is based was commenced, under way, or completed within five years preceding the violation or failure specified in items (A) through (E) above, unless such modification was undertaken at an Improved Unit and commenced prior to the date of lodging of this Consent Decree.

111. Other Units. The resolution of claims of United States in Section XI shall not apply to claims arising from modifications at Other Units commenced less than five years prior to the occurrence of one or more of the following:

- (A) a modification or (collection of modifications) commenced after lodging of this Decree at such Other Unit, individually (or collectively) increase the maximum hourly emission rate for such Unit for the relevant pollutant (NOx or SO2) as measured by 40 C.F.R. § 60.14(b) and (h); or
- (B) the aggregate of all Capital Expenditures made at such Other Unit exceed \$125/KW on the Unit's Boiler Island (based on the Maximum Dependable Capacity numbers in the North American Electric Reliability Council's Generating Availability

Database for the year 2002) during any of the following five-year periods: January 1, 2001, through December 31, 2005; January 1, 2006, through December 31, 2010; January 1, 2011, through December 31, 2015. (Capital Expenditures shall be measured in calendar year 2000 constant dollars, as adjusted by the McGraw-Hill Engineering News-Record Construction Cost Index); or

(C) modification(s) commenced after lodging of this Decree resulting in emissions increase(s) of the relevant pollutant that actually occurred from any such Other Unit, where such increase(s):

(1) present by themselves or in combination with other emissions or sources “an imminent and substantial endangerment” within the meaning of Section 303 of the Act, 42 U.S.C. § 7603; or

(2) cause or contribute to violation of a National Ambient Air Quality Standard in any Air Quality Control Area that is in attainment with that NAAQS; or

(3) cause or contribute to violation of a PSD increment; or

(4) cause or contribute to any adverse impact on any formally recognized air quality and related values in any Class I area.

112. Solely for purposes of Subparagraph 111(C), above: (i) the determination of whether emissions increase(s) of the relevant pollutant actually occurred at the Unit must take into account any emissions changes relevant to the modeling domain that have occurred or will occur under this Decree at other VEPCO System Units; and (ii) an emissions increase shall not be deemed to have actually occurred unless annual emissions of the relevant pollutant from all

VEPCO System Units at the plant at which such Unit is located (and treating Mount Storm and North Branch as a single plant for this purpose) have exceeded such plant’s emissions of that pollutant after the lodging of this Consent Decree, as specified below:

Plant	SO2 Annual Emissions (tons)	NOX Annual Emissions (tons)
Bremo	13,463	4,755
Chesapeake	35,923	10,657
Chesterfield	75,330	15,858
Clover	Improved	10,076
Mt. Storm / North Branch	19,992	40,188
Yorktown	26,755	5,066

113. Introduction of any new or changed National Ambient Air Quality Standard shall not, standing alone, provide the showing needed under Subparagraph 111(C) (1)-(4) to pursue any claim resolved under Section XI.

114. Fuel Limit. The resolution of claims provided by Section XI shall not apply to any modification commenced on a Unit within five years prior to the date on which VEPCO:

(A) fires such Unit with any fuel or fuel mix that is either prohibited by applicable state law or that is not otherwise authorized by the relevant state; or

(B) increases the current (as of February 1, 2003) coal contracting bid specification or contract specifications that limit fuel sulfur content in securing coal for a Unit, as summarized in Appendix A. This Paragraph does not apply to VEPCO's use of: (i) a fuel or fuel mix specifically called for by this Decree, if any, or (ii) any coal in any coal-fired Unit regardless of the fuel's sulfur content, so long as such use occurs after the Unit is being served by an FGD or other control equipment that can maintain 95.0% Removal Efficiency for SO₂, on a 30-day, rolling average basis.

115. Improved Units. The resolution of claims provided by Section XI shall not apply to a modification (or collection of modifications), if commenced after the lodging of this Decree at an Improved Unit, that individually (or collectively) increase the maximum hourly emission rate of that Unit for NO_x or SO₂ (as measured by 40 C.F.R. § 60.14 (b) and (h)) by more than ten percent (10%) of the maximum hourly emission rate for that Unit.

XIII. RESOLUTION OF PAST CLAIMS OF NEW YORK, NEW JERSEY, AND CONNECTICUT

116. The States of New York, New Jersey, and Connecticut agree that this Decree resolves all of the following civil claims that have been or could have been brought against VEPCO for violations at Units at Mount Storm, Chesterfield or Possum Point prior to the lodging of this Decree:

(A) The Prevention of Significant Deterioration or Non- Attainment provisions of Parts C and D of the Clean Air Act, 42 U.S.C. § 7401 *et seq.* and related state provisions; and(B) 40 C.F.R. § 60.1.

XIV. RESOLUTION OF CIVIL CLAIMS OF THE COMMONWEALTH OF VIRGINIA.

117. Claims Based on Modifications Occurring Before the Lodging of Decree. Subject to the specific limitations in this Section, entry of this Decree shall resolve all civil and administrative claims of the Commonwealth of Virginia that arose from any modification (physical change or change in the method of operation, including construction of any air pollution control project at any VEPCO System Unit) under applicable federal statutes (Section 7410 (a)(2)(C), Part C or D of Subchapter I of the Clean Air Act or 40 CFR Section 60.14) or applicable state regulations (Article 6 (9 VAC 5-80-1100 *et seq.*), Article 8 (9 VAC 5-80-1700 *et seq.*) or Article 9 (9 VAC 5-80-2000 *et seq.*) of Part II of 9 VAC 5 Chapter 80, and provisions of 9 VAC 5, Chapter 50, that are equivalent to 40 C.F.R. § 60.14(a)), and, as to the state regulations, all applicable predecessor regulations. This Paragraph shall apply to any modification commenced at any VEPCO System Unit located in the Commonwealth prior to the date of lodging of this Decree.

118. Claims Based on Modifications after the Lodging of Decree. Subject to the specific limitations in this Section, entry of this Decree shall also resolve all civil and administrative claims of the Commonwealth of Virginia arising from any modification (physical change or change in the method of operation, including construction of any air pollution control project at any VEPCO system Unit) under applicable federal statutes (Section 7410 (a)(2)(C), Part C or D of Subchapter I of the Clean Air Act) or applicable state regulations (Article 6 (9 VAC 5-80-

1100 et seq.), Article 8 (9 VAC 5-80-1700 et seq.) or Article 9 (9 VAC 5-80-2000 et seq.) of Part II of 9 VAC 5 Chapter 80 and any successor regulations). This Paragraph shall apply to any modification at any VEPCO System Unit located in the Commonwealth commenced on or after lodging of this Decree that is completed before December 31, 2015, or are those that this Consent Decree expressly directs VEPCO to undertake.

119. Reopener. The resolution of the civil claims of the Commonwealth of Virginia provided by this Section is subject to the provisions of Section XV.

120. General. Each term used in Paragraph 118 that is also a term used under the Clean Air Act shall mean what such term means under the Act as it existed on the date of lodging of this Decree.

121. Commonwealth's Authority Regarding NAAQS Exceedances. Nothing in this Section shall be construed to affect the Commonwealth's authority under applicable federal statutes and applicable state regulations to impose appropriate requirements or sanctions on any VEPCO System Unit when emissions from the plant at which such unit is located result in violation of, or interfere with the attainment and maintenance of, any ambient air quality standard, or the plant fails to operate in conformance with any applicable control strategy, including any emissions standards or emissions limitations.

122. Nothing in this Section shall prevent the Commonwealth from issuing to any VEPCO System Unit a permit under either Article 5 (9 VAC 5-80-800 et seq.) or Article 6 (9 VAC 5-80-1100 et seq.) for the purpose of preserving the terms and conditions of this Decree as applicable federal requirements upon the expiration of the Decree.

XV. REOPENING OF VIRGINIAS' CLAIMS RESOLVED BY SECTION XIV

123. Bases for Pursuing Resolved Claims Across VEPCO System. If VEPCO:

(A) Violates Paragraph 59(A) or (B) (VEPCO System-Wide, Interim Control of NOx Emissions, 2004 through 2007); or

(B) Violates Paragraph 60 (VEPCO System-Wide NOx Tonnage Limits 2003 and thereafter: Declining, System-Wide Tonnage Caps); or

(C) Violates Paragraph 61 (VEPCO System-Wide Average NOx Emission Rate) in any calendar year (or ozone season, as applicable); or

(D) Fails by more than ninety days to complete installation of and commence timely year-round operation of any SCR or FGD required by Paragraphs 56 or 64 or Sections VIII or IX; or

(E) Fails to limit VEPCO System SO₂ emissions to 203,693 tons or less in each calendar year starting with 2005 and thereafter;

then the Commonwealth of Virginia may pursue any claims at any VEPCO System Unit located in the Commonwealth otherwise resolved under Section XIV, where the modification(s) on which such claim is based was commenced, under way, or completed within five years preceding the violation or failure specified above, unless such modification was undertaken at an Improved Unit and commenced prior to the date of lodging of this Consent Decree.

124. Other Units. The resolution of claims of the Commonwealth of Virginia in Section XIV shall not apply to claims arising from modifications at Other Units located in the Commonwealth commenced less than five years prior to the occurrence of one or more of the following:

(A) One or more modifications at such Other Unit commenced after lodging of this Decree, individually or collectively, increase the maximum hourly emission rate for such Unit for the relevant pollutant (NO_x or SO₂) as measured by 40 C.F.R. § 60.14(b) and (h); or

(B) The aggregate of all Capital Expenditures made at such Other Unit is in excess of \$125/KW on the Unit's Boiler Island (based on the Maximum Dependable Capacity numbers in the North American Electric Reliability Council's Generating Availability Database for the year 2002) during any of the following five-year periods: January 1, 2001, through December 31, 2005; January 1, 2006, through December 31, 2010; January 1, 2011, through December 31, 2015. (Capital Expenditures shall be measured in calendar year 2000 constant dollars, as adjusted by the McGraw-Hill Engineering News-Record Construction Cost Index); or

(C) Modification(s) commenced after lodging of this Decree resulting in emissions increase(s) of the relevant pollutant that actually occurred from any such Other Unit, where such increase(s):

(1) present by themselves or in combination with other sources "an imminent and substantial endangerment" within the meaning of Section 303 of the Act, 42 U.S.C. § 7603; or

- (2) cause or contribute to violation of a National Ambient Air Quality Standard in any Air Quality Control Area that is in attainment with that NAAQS;
- or
- (3) cause or contribute to violation of a PSD increment; or
- (4) cause or contribute to any adverse impact on any formally recognized air quality and related values in any Class I area.

Solely for purposes of this Subparagraph (C), (1) determination of whether there is an emissions increase that actually occurred resulting from modification(s) at the Unit must take into account any emissions changes relevant to the modeling domain that have occurred or will occur under this Decree at other VEPCO System Units; and (2) no such increase from a Unit will be deemed to have occurred if annual emissions of the relevant pollutant from all VEPCO System Units at the plant at which such Unit is located (and treating Mount Storm and North Branch as a single plant for this purpose) do not exceed such plant's emissions of that pollutant after lodging of this Consent Decree, as specified in Paragraph 112. Also, introduction of any new or changed National Ambient Air Quality Standard shall not, standing alone, provide the showing needed under this Subparagraph (C) (1)-(4) to pursue any claim resolved under Section XIV.

125. Improved Units. The resolution of claims provided by Section XIV shall not apply to a modification (or collection of modifications), if commenced after lodging of this Decree, at an Improved Unit located in the Commonwealth that individually (or collectively) increase the maximum hourly emission rate of that Unit for NO_x or SO₂ (as measured by 40 C.F.R. § 60.14 (b) and (h)) by more than ten percent (10%) of the maximum hourly emission rate for that Unit.

XVI. RESOLUTION OF CIVIL CLAIMS OF THE STATE OF WEST VIRGINIA

126. Claims Based on Modifications Occurring Before the Lodging of Decree. Subject to the specific limitations in this Section, entry of this Decree shall resolve all civil claims of the State of West Virginia that arose under applicable federal statutes and regulations (Section 7410 (a)(2)(C), Parts C or D of Subchapter I of the Clean Air Act or 40 CFR Section 60.14) or applicable state regulations (45CSR13, 45CSR14 and 45CSR19, as well as the provisions of 45CSR16 that are equivalent to 40 CFR Section 60.14(a)) and, as to the state regulations, all applicable predecessor regulations, from any modification (physical change or change in the method of operation, including but not limited to construction of any air pollution control project at any VEPCO System Unit). This Paragraph shall apply to any modification at any VEPCO System Unit located in West Virginia commenced prior to the date of lodging of this Decree.

127. Claims Based on Modifications after the Lodging of Decree. Subject to the specific limitations in this Section, entry of this Decree shall also resolve all civil claims of the State of West Virginia arising under applicable federal statutes (Section 7410 (a)(2)(C) and Parts C or D of Subchapter I of the Clean Air Act) or applicable state regulations (45CSR13, 45CSR14 and 45CSR19 and any successor regulations from any modification (physical change or change in the method of operation, including but not limited to construction of any air pollution control project at any VEPCO system Unit). This Paragraph shall apply to any modification at any VEPCO System Unit located in West Virginia commenced on or after the date of lodging of this Decree that is completed before December 31, 2015, or is among those that this Consent Decree expressly directs VEPCO to undertake.

128. Reopener. The resolution of the civil claims of the State of West Virginia provided by this Section is subject to the provisions of Section XVII.

129. General. Each term used in Paragraph 127 that is also a term used under the Clean Air Act shall mean what such term means under the Act as it existed on the date of lodging of this Decree.

130. West Virginia's Authority Regarding NAAQS Exceedances. Nothing in this Decree shall be construed to affect West Virginia's authority under applicable federal statutes and applicable state statutes or regulations to impose appropriate requirements or sanctions on any VEPCO System Unit when emissions from the plant at which such unit is located result in violation of, or interfere with the attainment and maintenance of, any ambient air quality standard, or the plant fails to operate in conformance with any applicable control strategy, including any emissions standards or emissions limitations.

131. Nothing in this Section shall prevent West Virginia from issuing to any VEPCO System Unit a permit under either 45CSR13 or 45CSR14) for the purpose of preserving the terms and conditions of this Decree as applicable federal requirements upon the expiration of the Decree.

XVII. REOPENING OF WEST VIRGINIA'S CLAIMS RESOLVED BY SECTION XVI.

132. Bases for Pursuing Resolved Claims Across VEPCO System. If VEPCO:

(A) Violates Paragraph 59(A) or (B) (VEPCO System-Wide, Interim Control of NOx Emissions, 2004 through 2007); or

(B) Violates Paragraph 60 (VEPCO System-Wide NOx Tonnage Limits 2003 and thereafter: Declining, System-Wide Tonnage Caps); or

(C) Violates Paragraph 61 (VEPCO System-Wide Average NOx Emission Rate) in any calendar year (or ozone season, as applicable); or

(D) Fails by more than ninety days to complete installation of and commence timely year-round operation of any SCR or FGD required by Paragraphs 56 or 64 or Sections VIII or IX; or

(E) Fails to limit VEPCO System SO₂ emissions to 203,693 tons or less in each calendar year starting with 2005 and thereafter;

then the State of West Virginia may pursue any claims at any VEPCO System Unit located in the state otherwise resolved under Section AA, where the modification(s) on which such claim is based was commenced, under way, or completed within five years preceding the violation or failure specified above, unless such modification was undertaken at an Improved Unit and completed prior to the date of lodging of this Consent Decree.

133. Other Units. The resolution of claims of the State of West Virginia in Section AA shall not apply to claims arising from modifications at Other Units located in West Virginia commenced less than five years prior to the occurrence of one or more of the following:

(A) One or more modifications at such Other Unit, individually or collectively, increase the maximum hourly emission rate for such Unit for the relevant pollutant (NO_x or SO₂) as measured by 40 C.F.R. § 60.14(b) and (h); or

(B) The aggregate of all Capital Expenditures made at such Other Unit is in excess of \$125/KW on the Unit's Boiler Island (based on the Maximum Dependable Capacity numbers in the North American Electric Reliability Council's Generating Availability Database for the year 2002) during any of the following five-year periods: January 1,

2001, through December 31, 2005; January 1, 2006, through December 31, 2010; January 1, 2011, through December 31, 2015. (Capital Expenditures shall be measured in calendar year 2000 constant dollars, as adjusted by the McGraw-Hill Engineering News-Record Construction Cost Index); or

(C) Modification(s) resulting in emissions increase(s) of the relevant pollutant that actually occurred from any such Other Unit, where such increase(s):

- (1) present by themselves or in combination with other sources “an imminent and substantial endangerment” within the meaning of Section 303 of the Act, 42 U.S.C. § 7603; or
- (2) cause or contribute to violation of a National Ambient Air Quality Standard in any Air Quality Control Area that is in attainment with that NAAQS; or
- (3) cause or contribute to violation of a PSD increment; or
- (4) cause or contribute to any adverse impact on any formally recognized air quality and related values in any Class I area.

Solely for purposes of this Subparagraph (C), (i) determination of whether there is an emissions increase that actually occurred resulting from modification(s) at the Unit must take into account any emissions changes relevant to the modeling domain that have occurred or will occur under this Decree at other VEPCO System Units; and (ii) no such increase from a Unit will be deemed to have occurred if annual emissions of the relevant pollutant from all VEPCO System Units at the plant at which such Unit is located (and treating Mount Storm and North Branch as a single

plant for this purpose) do not exceed such plant's emissions of that pollutant, as specified in Paragraph 112. Also, introduction of any new or changed National Ambient Air Quality Standard shall not, standing alone, provide the showing needed under this Subparagraph (C) (1)-(4) to pursue any claim resolved under Section XVI.

134. Improved Units. The resolution of claims provided by Section XVI shall not apply to a modification (or collection of modifications), if commenced after lodging of this Decree, at an Improved Unit located in West Virginia that individually (or collectively) increase the maximum hourly emission rate of that Unit for NO_x or SO₂ (as measured by 40 C.F.R. § 60.14 (b) and (h)) by more than ten percent (10%) of the maximum hourly emission rate for that Unit.

XVIII. OTHER PROVISIONS ON ALLOWANCES AND CREDITS

135. NO_x Credits. For any and all actions taken by VEPCO to conform to the requirements of this Decree, VEPCO shall not use or sell any resulting NO_x emission allowances or credits in any emission trading or marketing program of any kind; provided, however that:

- (A) NO_x emission allowances or credits allocated to the VEPCO System by the Administrator of EPA under the Act, or by any State under its SIP in response to the EPA NO_x SIP Call, or the EPA Section 126 Rulemaking, or any other similar emissions trading or marketing program of any kind, may be used by VEPCO and its parent company (Dominion Resources) or its subsidiaries or affiliates to meet their own federal and/or state Clean Air Act regulatory requirements for any air emissions source owned or operated, in whole or in part, by VEPCO or Dominion Resources, Inc. or its subsidiaries or affiliates and;

(B) VEPCO may trade in any federal or state program any NO_x emissions allowances which are generated from VEPCO's operating its SCRs, or equivalent control technology, at Chesterfield Units 4, 5, and 6; or Chesapeake Units 3 and 4; or any VEPCO System Unit on which SCR is installed under Section IX (Installing Additional Units on VEPCO System Units), either:

- (1) Earlier than required by this Decree or other applicable law; or
- (2) At time periods of the year not required by this Consent Decree or by applicable law; or
- (3) At a 30-Day Rolling Average Emission Rate that is more stringent than required by this Decree.

(C) VEPCO may trade in any federal or state program NO_x emissions allowances which are generated from VEPCO's operating its SCRs, or equivalent control technology, at Mt. Storm Units 1, 2, and 3 as follows:

- (1) 100% of NO_x allowances generated earlier than required by this Decree or other applicable law; or
- (2) 100% of NO_x allowances generated at time periods of the year not required by this Consent Decree or by applicable law; or (3) 50% of NO_x allowances generated by achieving a 30-Day Rolling Average Emission Rate more stringent than required by this Consent Decree. The remaining 50% of the NO_x allowances generated may be used in accordance with Subparagraph A or be retired.

136. Netting Limits. Nothing in this Decree shall prevent VEPCO from claiming creditable contemporaneous emissions decreases from emission reductions effected by VEPCO prior to the June 30, 2001. For emission control actions taken by VEPCO to conform with the terms of this Consent Decree, including, but not limited to, improvements to ESPs and FGDs, installation of FGDs, installation of SCRs, and the fuel conversion of Possum Point Units 3 and 4, any emission reductions generated up to the level necessary to comply with the provisions of this Decree (and excluding simple control equipment operating requirements) shall not be considered as a creditable contemporaneous emission decrease for the purpose of obtaining a netting credit under the Act's New Source Review program; provided, however, that nothing in this Decree shall be construed to prohibit VEPCO's seeking such treatment for decreases in emissions resulting from VEPCO's ceasing combustion of coal at Possum Point Unit 3 or Possum Point Unit 4, if:

- (A) Such decreases are used in VEPCO's demonstrating whether the conversion of Possum Point Units 3 and 4 (plus the installation of up to two new units 540 MW (nominal) each, combined cycle electric generating units at Possum Point) would result in a net significant emissions increase; and
- (B) VEPCO either (i) installs and continuously operates LAER on Possum Point Units 3 or 4 or (ii) demonstrates that the use of natural gas will result in a net emissions decrease; and
- (C) VEPCO also complies with the NO_x emissions cap and other requirements in Paragraph 96 for Possum Point Units 3 and 4 under this Decree and also installs SCR controls for NO_x on the new combined cycle unit(s).

XIX. PERIODIC REPORTING

137. Compliance Report. After entry of this Decree, VEPCO shall submit to Plaintiffs a periodic report, in compliance with Appendix B, within sixty (60) days after the end of each half of the calendar year (January through June and July through December).

138. Deviations Report. In addition to the reports required by the previous paragraph, if VEPCO violates or deviates from any provision of this Consent Decree, VEPCO shall submit to Plaintiffs a report on the violation or deviation within ten (10) business days after VEPCO knew or should have known of the event. In the report, VEPCO shall explain the cause or causes of the violation or deviation and any measures taken or to be taken by VEPCO to cure the reported violation or deviation or to prevent such violation or deviations in the future. If at any time, the provisions of the Decree are included in Title V Permits, consistent with the requirements for such inclusion in the Decree, then the deviation reports required under applicable Title V regulations shall be deemed to satisfy all the requirements of this Paragraph.

139. VEPCO's reports (Periodic and Deviations) shall be signed by VEPCO's Vice President of Fossil and Hydro, or, in his or her absence, VEPCO's Vice President of Technical Services, or higher ranking official, and shall contain the following certification:

I certify under penalty of law that this information was 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 directions and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I understand that there are significant penalties for making misrepresentations to or misleading the United States.

140. If any allowances are surrendered to any third party pursuant to Section VI the third

party's certification shall be signed by a managing officer of the third party's and shall contain the following language:

I certify under penalty of law that _____ [name of third party] will not sell, trade, or otherwise exchange any of the allowances and will not use any of the allowances to meet any obligation imposed by any environmental law. I understand that there are significant penalties for making misrepresentations to or misleading the United States.

XX. CIVIL PENALTY

141. Within thirty (30) calendar days of entry of this Consent Decree, VEPCO shall pay to the United States a civil penalty of \$5.3 million. The civil penalty shall be paid by Electronic Funds Transfer ("EFT") to the United States Department of Justice, in accordance with current EFT procedures, referencing the USAO File Number _____ and DOJ Case Number 90-5-2-1-07122 and the civil action case name and case number of this action. The costs of EFT shall be VEPCO's responsibility. Payment shall be made in accordance with instructions provided by the Financial Litigation Unit of the U.S. Attorney's Office for the Eastern District of Virginia. Any funds received after 11:00 a.m. (EST) shall be credited on the next business day. VEPCO shall provide notice of payment, referencing the USAO File Number, DOJ Case Number 90-5-2-1-07122, and the civil action case name and case number, to the Department of Justice and to EPA, as provided in Section XXIX, Paragraph 187 ("Notice"). Failure to timely pay the civil penalty shall subject VEPCO to interest accruing from the date payment is due until the date payment is made at the rate prescribed by 28 U.S.C. § 1961, and shall render VEPCO liable for all charges, costs, fees, and penalties established by law for the benefit of a creditor or of the United States in securing payment.

XXI. MITIGATION PROJECTS

142. General. VEPCO shall submit for review and approval plans for the completion of the Mitigation Projects described in this Section, complying with the schedules and other terms of this Consent Decree and plans for such Projects approved under this Decree. In performing these Projects, VEPCO shall spend no less than \$13.9 million Project Dollars. VEPCO shall make available the full amount of the Project Dollars required by this Paragraph within one year of entry of this Decree. VEPCO shall maintain for review by the Plaintiffs, upon request, all documents identifying Project Dollars spent by VEPCO. All plans and reports prepared by VEPCO or by other persons pursuant to the requirements of this Section of the Consent Decree shall be publicly available from VEPCO, without charge. No Project Dollars may be made available or expended to undertake an obligation already required by law.

143. Good Faith. VEPCO shall use good faith efforts to secure as much benefit as possible for the Project Dollars expended, consistent with the applicable requirements and limits of this Decree.

144. Other Project Requirements. In addition to the requirements imposed for each Project specified in this Decree, including Appendix C and the approved plans, the following requirements shall apply. If VEPCO elects (where such election is allowed) to undertake a Project by contributing funds to another person or instrumentality to carry out the Project, that person or instrumentality must, in writing: (A) identify its legal authority for accepting such funding, and (B) identify its legal authority to conduct the Project for which VEPCO contributes the funds. Regardless of whether VEPCO elects (where such election is allowed) to undertake

the Project itself or to do so by contributing funds to another person or instrumentality that will carry out the Project, VEPCO acknowledges that it shall receive credit for expenditure of such funds as Project Dollars only in accordance with the approved plans. Provided however, that when VEPCO elects to undertake a Project by providing funds to a State or any instrumentality thereof, VEPCO shall receive credit for any timely expenditure of funds upon transfer of such funds to such State or instrumentality thereof, as long as the VEPCO provides payment in accordance with Appendix C and the approved plan. VEPCO shall certify, as part of the proposed plan submitted to the Plaintiffs for any contemplated Project, that no person is required by any law, other than this Consent Decree, to perform the Project described in the proposed plan. Within sixty (60) days following the completion of each approved Project, VEPCO shall submit to the Plaintiffs a report that documents the date that all aspects of the project were implemented, VEPCO's results in completing the project, including the emission reductions or other environmental or health benefits achieved, and the Project Dollars expended by VEPCO in implementing the Project. Based on consideration of these reports and the approved plans, and any other available, relevant information, the United States (after consultation with the other Plaintiffs) will advise VEPCO whether the Project has met the requirements of the Decree. VEPCO shall submit the required plans for, and complete, each Project, as approved by the United States, and by any other Plaintiff within whose territory a Project would be implemented, all as specified further in Appendix C to this Decree.

XXII. STIPULATED PENALTIES & ALLOWANCE OR CREDIT SURRENDERS

145. Within thirty (30) days after written demand from the United States, and subject to the provisions of Sections XXVI (“Force Majeure”) and XXVII (“Dispute Resolution”), VEPCO shall pay the following stipulated penalties to the United States (and surrender the specified number of emission allowances or credits) for each failure by VEPCO to comply with the terms of this Consent Decree, as follows.

146. For each violation of each limit, rate or removal efficiency that is measured on a 30-day Rolling Average or shorter averaging period imposed on NO_x, SO₂, and PM under Sections IV, V, VII, VIII (“Possum Point”), and IX (“Installing Additional Controls on VEPCO System Units”):

- (A) less than 5% in excess of the limit: \$2,500 per day per violation;
- (B) equal to or greater than 5% in excess of the limit: \$5,000 per day per violation;
- (C) equal to or greater than 10% in excess of the limit: \$10,000 per day per violation.
- (D) For failure to meet any VEPCO System-Wide emissions requirement (Paragraph 59(A) and (B) “VEPCO System: Interim Control of NOX Emissions: 2004 through 2007; Paragraph 60”VEPCO System NOX Limits 2003 and thereafter: Declining , System-Wide Tonnage Caps; and Paragraph 61 VEPCO System –Wide, Annual Average NOX Emission Rate): \$5,000 per ton for the first 100 tons resulting from the violation, and \$10,000 per ton for each additional ton resulting from the violation.

147. Other Specific Failures. For failure to:

(A) install timely and commence operation timely of SCR on each Unit (each SCR installation) specified in Section IV, Paragraph 56 (“Unit-Specific SCR Installations and Annual Performance Requirements”): (i) \$10,000 per day, per violation, for the first 30 days; and (ii) \$27,500 per day, per violation, thereafter.

(B) complete any FGD improvements or installation needed to meet emission limits imposed under Section V, Paragraph 64 (“Construction, Upgrading, and Removal Efficiencies Required or on FGDs Serving Clover Units 1 and 2, Mount Storm Unites 1, 2, and 3, and Chesterfield Units 5 and 6”): (i) \$ 10,000 per day, per violation, for the first 30 days; and (ii) \$20,000 per day, per violation, thereafter.

(C) surrender timely the annually-required 45,000 SO₂ Allowances surrender under Section VI: \$27,500 per day, per violation plus the surrender 100 additional SO₂ Allowances per day per violation.

(D) timely transfer the annually-required surrender of 45,000 SO₂ Allowances by VEPCO to any third party under Section VI: \$27,500 per day, per violation plus the surrender 100 additional SO₂ Allowances per day per violation.

(E) comply with any requirement in this Consent Decree regarding the use of any SO₂ or NO_x allowances or credits: surrender three times the allowances or credits handled in violation of the requirement.

(F) complete timely the proper installation of all equipment called for under Section VII (PM Emission Reductions and Controls) or under any plan or

submission approved by EPA under Section VII: (i) \$ 10,000 per day, per violation, for the first 30 days; and (ii) \$20,000 per day, per violation, thereafter.

(G) conduct a required stack test of PM emissions on each VEPCO System Unit where such test is required under Section VII: \$1,000 per day, per violation.

(H) Submit timely and complete reports called for under Section XIX (“Periodic Reporting”): \$1,000 per day, per violation.

(I) Complete any funding for any of the Projects described in Section XXI (Mitigation Projects): \$1,000 per day, per violation for the first 30 days; and \$5,000 per day, per violation thereafter.

148. Violations of any limit based on a 30-Day Rolling Average constitutes thirty (30) days of violation but where such a violation (for the same pollutant and from the same Unit or source) recurs within periods less than thirty (30) days, VEPCO shall not be obligated to pay a daily stipulated penalty, for any day of the recurrence for which a stipulated penalty has already been paid.

XXIV. ACCESS, AND INFORMATION COLLECTION AND RETENTION

149. Access, Inspection, Investigation. Any authorized representative of EPA, including independent contractors, upon presentation of credentials, shall have a right of entry upon the premises of any facility in the VEPCO System at any reasonable time and for any reasonable purpose regarding monitoring compliance with the provisions of this Consent Decree, including inspecting plant equipment and inspecting and copying all records maintained by VEPCO required by this Consent Decree. VEPCO shall retain such records for a period of fifteen (15)

years from the date of entry of this Consent Decree. Nothing in this Consent Decree shall limit any information-gathering or inspection authority of EPA under the Act, including but not limited to Section 114 of the Act, 42 U.S.C. Section 7414.

XXV. COORDINATION OF ENFORCEMENT & DISPUTE RESOLUTION

150. United States - Enforcement and Dispute Resolution. The United States may enforce any and all requirements of this Decree and may invoke dispute resolution provisions of this Decree as to any requirement of this Decree to which dispute resolution applies and also may participate in adjudication of any claim of Force Majeure made by VEPCO or any other Party.

151. VEPCO - Dispute Resolution. VEPCO may invoke the dispute resolution provisions of this Decree over any requirement of this Decree to which dispute resolution applies.

152. States - Enforcement. Consistent with Section XXV, The State of New York, New Jersey, or Connecticut, or any combination of them, may enforce only the following requirements of this Decree:

(A) those requirements imposed directly on a Unit at Mount Storm, Chesterfield, and Possum Point;

(B) any or all of the following VEPCO System-Wide requirements: Section IV Paragraph 59 (“Interim NO_x Emissions for VEPCO System”), Paragraph 60 (“VEPCO System NO_x Declining Tonnage Caps”) and Paragraph 61 (“NO_x System-Wide Average Emission Rate”]) and Section VI, Paragraph 71 (Annual Surrender of SO₂ Allowances); and

(C) those requirements involving timely and proper performance of Decree-mandated mitigation projects (Section XXI and Appendix C).

153. The Commonwealth of Virginia and the State of West Virginia may enforce all of the requirements of this Decree applicable to VEPCO units within their respective jurisdictions, including the system-wide cap.

154. States - Dispute Resolution. The States of New York, New Jersey, Connecticut, Virginia, or West Virginia, or any combination of them, may invoke dispute resolution only over those Decree requirements that such State could enforce under this Decree and may participate as a plaintiff in any matter in which VEPCO asserts Force Majeure under this Decree only if the matter concerns a requirement which such State could have enforced under the terms of this Decree. Notwithstanding the preceding sentence, the States of New York, New Jersey, Connecticut, Virginia, or West Virginia, or any combination of them, may participate as a plaintiff in any matter in which VEPCO asserts force majeure under this Decree, to the extent that resolution of the legal issue(s) at stake in that matter would affect the ability of New York, New Jersey, Connecticut, Virginia, or West Virginia to enforce any of the requirements specified in Paragraphs 152 and 153_of this Section.

155. Consultation Among Plaintiffs. Absent exigent circumstances, the United States, New York, New Jersey, Connecticut shall consult prior to enforcing a requirement under this Decree or prior to invoking Dispute Resolution (Section) for any issue, which the given State could enforce under this Decree. Absent exigent circumstances, the United States, Virginia, and West Virginia shall consult prior to enforcing a requirement under this Decree or prior to invoking Dispute Resolution (Section XXVII) for any issue which the given State could enforce under this Decree. If such consultation reveals that, for any reason, the United States does not intend to

participate, in the first instance, in either the Decree enforcement or invocation of Dispute Resolution contemplated by New York, New Jersey, or Connecticut, Virginia, or West Virginia then the consultation required by this Section is not satisfied until after “Senior Management Level Officials” of United States consult with the “Senior Management Level Officials” of each Plaintiff intending to enforce a requirement under the Decree or to invoke dispute resolution under it. The United States shall undertake such consultation and shall complete it within twenty-eight (28) days after the consultation with the States and the United States demonstrates that the United States does not intend to participate in the activity contemplated by one or more of the States. Only for purposes of the consultation requirement of this Section, “Senior Management Level Official” means:

- (A) For the United States: Director of the Office of Regulatory Enforcement, U.S. EPA Office of Enforcement and Compliance Assurance, and Chief of the Environmental Enforcement Section, U.S. DOJ Environment & Natural Resources Division;
- (B) For New York: Chief of the Environmental Protection Bureau, Office of the Attorney General of the State of New York;
- (C) For New Jersey: Assistant Attorney General in Charge of Environmental Protection, Office of the Attorney General of the State of New Jersey;
- (D) For Connecticut: Director of the Environmental Department, Office of the Attorney General for the State of Connecticut;
- (E) For Virginia: Director of the Environmental Unit, Special Prosecutions Section, Public Safety and Law Enforcement Division, Office of the Attorney General of the Commonwealth of Virginia; and

(F) For West Virginia: Director of the Division of Air Quality, West Virginia
Department of Environmental Protection

156. Confirmation of Consultation. Contemporaneous with any filing to enforce the Decree or to invoke Dispute Resolution (Section XXVII), the moving Plaintiff shall serve on VEPCO a written statement noting that the consultation required by this Section has been completed, unless Plaintiff is relying on the “exigent circumstances” exception of this Section. If a Plaintiff invokes the “exigent circumstances” exception in lieu of completing this consultation process, that Plaintiff must then serve on VEPCO an explanation of the need for acting in advance of completing such consultation. “Exigent” is intended to have its normal meaning when used in this Section of the Decree, and reliance by a Plaintiff on this exception is subject to review by the Court.

XXVI. FORCE MAJEURE

157. General. If any event occurs which causes or may cause a delay in complying with any provision of this Consent Decree or causes VEPCO to be in violation of any provision of this Decree, VEPCO shall notify the Plaintiffs in writing as soon as practicable, but in no event later than ten (10) business days following the date VEPCO first knew, or within ten (10) business days following the date VEPCO should have known by the exercise of due diligence, that the event caused or may cause such delay or violation, whichever is earlier. In this notice, VEPCO shall reference this Paragraph of this Consent Decree and describe the anticipated length of time the delay or violation may persist, the cause or causes of the delay or violation, the measures taken or to be taken by VEPCO to prevent or minimize the delay or violation, and the schedule by which those measures will be implemented. VEPCO shall

adopt all reasonable measures to avoid or minimize such delays and prevent such violations.

158. Failure of Notice. Failure by VEPCO to comply with the notice requirements of this Section shall render this Section voidable by the Plaintiffs authorized under Sections XXV (Coordination of Enforcement and Dispute Resolution) to enforce a Consent Decree requirement against which VEPCO could interpose the force majeure assertion in question. If voided, the provisions of this Section shall have no effect as to the particular event involved.

159. Plaintiffs' Response. The Plaintiffs authorized under Sections XXV (Coordination of Enforcement and Dispute Resolution) to enforce a Consent Decree requirement against which VEPCO could interpose the force majeure assertion in question shall notify VEPCO, in writing, regarding VEPCO's claim of a delay in performance or violation within fifteen (15) business days after completion of procedures specified in Section XXV ("Enforcement Coordination"). If the Plaintiffs agree that the delay in performance or the violation has been or will be caused by circumstances beyond the control of VEPCO, including any entity controlled by VEPCO, and that VEPCO could not have prevented the delay through the exercise of due diligence, the parties shall stipulate to such relief as appropriate, which shall usually be an extension of the required deadline(s) for every requirement affected by the delay for a period equivalent to the delay actually caused by such circumstances. Such stipulation shall be filed as a modification to this Consent Decree in order to be effective. VEPCO shall not be liable for stipulated penalties for the period of any such delay.

160. Disagreement. If the Plaintiffs authorized under Sections XXV (Coordination of Enforcement and Dispute Resolution) to enforce a Consent Decree requirement against which VEPCO could interpose the force majeure assertion in question, do not accept VEPCO's claim

that a delay or violation has been or will be caused by a Force Majeure event, or do not accept VEPCO's proposed remedy, to avoid the imposition of stipulated penalties VEPCO must submit the matter to this Court for resolution by filing a petition for determination. Once VEPCO has submitted the matter, the United States, and other Plaintiffs as provided in Paragraph 159, shall have fifteen (15) business days to file a response(s). If VEPCO submits the matter to this Court for resolution, and the Court determines that the delay in performance or violation has been or will be caused by circumstances beyond the control of VEPCO, including any entity controlled by VEPCO, and that VEPCO could not have prevented the delay or violation by the exercise of due diligence, VEPCO shall be excused as to that event(s) and delay (including stipulated penalties otherwise applicable), but only for the period of time equivalent to the delay caused by such circumstances.

161. Burden of Proof. VEPCO shall bear the burden of proving that any delay in performance or violation of any requirement of this Consent Decree was caused by or will be caused by circumstances beyond its control, including any entity controlled by it, and that VEPCO could not have prevented the delay by the exercise of due diligence. VEPCO shall also bear the burden of proving the duration and extent of any delay(s) or violation(s) attributable to such circumstances. An extension of one compliance date based on a particular event may, but will not necessarily, result in an extension of a subsequent compliance date.

162. Events Excluded. Unanticipated or increased costs or expenses associated with the performance of VEPCO's obligations under this Consent Decree shall not constitute circumstances beyond the control of VEPCO or serve as a basis for an extension of time under this Section. However, failure of a permitting authority to issue a necessary permit in a timely

fashion may constitute a Force Majeure event where the failure of the permitting authority to act is beyond the control of VEPCO, and VEPCO has taken all steps available to it to obtain the necessary permit, including, but not limited to, submitting a complete permit application, responding to requests for additional information by the permitting authority in a timely fashion, accepting lawful permit terms and conditions, and prosecuting appeals of any allegedly unlawful terms and conditions imposed by the permitting authority in an expeditious fashion.

163. Potential Force Majeure Events. The parties agree that, depending upon the circumstances related to an event and VEPCO's response to such circumstances, the kinds of events listed below could qualify as Force Majeure events: construction, labor, or equipment delays; acts of God; Malfunction for PM as malfunction is defined in 40 C.F.R. 60.2; and orders by governmental officials, acting under and authorized by applicable law, that direct VEPCO to supply electricity in response to a legally declared, system-wide (or state-wide) emergency.

164. Prohibited Inferences. Notwithstanding any other provision of this Consent Decree, this Court shall not draw any inferences nor establish any presumptions adverse to any party as a result of VEPCO delivering a notice pursuant to this Section or the parties' inability to reach agreement on a dispute under this Part.

165. Extended Schedule. As part of the resolution of any matter submitted to this Court under this Section, the Parties by agreement with approval from this Court, or this Court by order, may, as allowed by law, extend the schedule for completion of work under this Consent Decree to account for the delay in the work that occurred as a result of any delay or violation. VEPCO shall be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the extended schedule.

XXVII. DISPUTE RESOLUTION

167. Scope of Disputes Covered and Eligibility of Parties to Participate. The dispute resolution procedure provided by this Section shall be available to resolve all disputes arising under this Consent Decree, except as provided in Section XXVI (“Force Majeure”) or in this Section, provided that the Party making such application has made a good faith attempt to resolve the matter with the other Parties. Invocation and participation of this Section also shall be done in compliance with Section XXV (“Coordination of Enforcement and Dispute Resolution”).

168. Invocation of Procedure. The dispute resolution procedure required herein shall be invoked by one Party to this Consent Decree giving written notice to another advising of a dispute pursuant to this Section. The notice shall describe the nature of the dispute and shall state the noticing party's position with regard to such dispute. The Party receiving such a notice shall acknowledge receipt of the notice, and the parties shall expeditiously schedule a meeting to discuss the dispute informally not later than fourteen (14) days following receipt of such notice.

169. Informal Phase. Disputes submitted to dispute resolution under this Section shall, in the first instance, be the subject of informal negotiations among the parties. Such period of informal negotiations shall not extend beyond thirty (30) calendar days from the date of the first meeting among the Parties’ representatives unless they agree to shorten or extend this period.

170. Formal Phase. If the Parties are unable to reach agreement during the informal negotiation period, the Plaintiffs, shall provide VEPCO with a written summary of their position regarding the dispute. The written position provided by the Plaintiffs shall be considered binding unless, within thirty (30) calendar days thereafter, VEPCO files with this Court a petition that

describes the nature of the dispute and seeks resolution. The Plaintiffs may respond to the petition within forty-five (45) calendar days of filing. Where the nature of the dispute is such that a more timely resolution of the issue is required, the time periods set out in this Section may be shortened upon successful motion of one of the parties to the dispute.

171. Prohibited Inference. This Court shall not draw any inferences nor establish any presumptions adverse to either party as a result of invocation of this Section or the parties' inability to reach agreement.

172. Alteration of Schedule. As part of the resolution of any dispute under this Section, in appropriate circumstances the parties may agree, or this Court may order if warranted by law, an extension or modification of the schedule for completion of work under this Consent Decree to account for the delay that occurred as a result of dispute resolution. VEPCO shall be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the extended or modified schedule.

173. Applicable Standard of Law. The Court shall decide all disputes pursuant to applicable principles of law for resolving such disputes; provided, however, that the parties reserve their rights to argue for what the applicable standard of law should be for resolving any particular dispute. Notwithstanding the preceding sentence of this Paragraph, as to disputes involving the submittal for review and approval under Section VII, the Court shall sustain the position of the United States as to disputes involving PM CEMs, any Pollution Control Upgrade Analysis, and optimization measures for PM that should be undertaken – unless VEPCO demonstrates that the position of the United States is arbitrary or capricious.

XXVIII. SALES OR TRANSFERS OF OWNERSHIP INTERESTS

174. Joint and Several Liability By Transfer of Certain VEPCO Property. If VEPCO proposes to sell or transfer any of its real property or operations subject to this Consent Decree, VEPCO shall advise the purchaser or transferee in writing of the existence of this Consent Decree prior to such sale or transfer, and shall send a copy of such written notification to the Plaintiffs pursuant to Section XXIX, Paragraph 187 (“Notices”) at least sixty (60) days before such proposed sale or transfer. Before closing such purchase or transfer, a modification of this Consent Decree shall make the purchaser or transferee a party defendant to this Decree and jointly and severally liable with VEPCO for all the requirements of this Decree that may be applicable to the transferred or purchased property or operations, including joint and several liability with VEPCO for all Unit-specific requirements and all VEPCO System-Wide requirements, namely: VEPCO System-Wide Annual Average Emission Rate for NO_x (Section IV), SO₂ Allowance surrenders (Section VI), and VEPCO System NO_x annual tonnage caps (Section IV) .

175. Option for Alternative Request on System-Wide obligations. VEPCO may propose and the United States may agree to restrict the scope of joint and several liability of any purchaser or transferee for any VEPCO System-Wide obligations to the extent such obligations may be adequately separated in an enforceable manner using the methods provided by or approved under Section X (“Permits”).

176. Option for Alternative Request on Particular VEPCO System Units. VEPCO also may propose, and the United States may agree to execute, a modification that transfers responsibility for completing Decree-required capital improvements from VEPCO to the

purchaser of property at which the capital improvement is required.

177. Standard for Reviewing a VEPCO Request. Liability transfers sought by VEPCO under this Section of the Decree shall be granted by the United States (or by all the Plaintiffs, as applicable) if the relevant Plaintiffs agree that:

(A) The purchaser or transferee has appropriately contracted with VEPCO to assume the obligations and liabilities applicable to the Unit; and

(B) VEPCO and the purchaser or transferee have properly allocated any emission allowance, credit requirement, or other Decree-imposed obligation on the VEPCO System, which also implicates the Unit to be transferred.

In the case of transfers of VEPCO System Units at Chesterfield and/or Mount Storm, VEPCO's scope of liability for either VEPCO System-Wide requirements or for Decree-required capital improvement on Units at those plants shall not be transferred unless the States of New York, New Jersey, and Connecticut concur with the United States' determination to accept liability of only the purchaser or transferee, as opposed to joint and several liability between VEPCO and the purchaser.

178. No limit on contractual allocation of responsibility that does not affect rights of the Plaintiffs. This Section of the Decree shall not be construed to impede VEPCO and any purchaser or transferee of real property or operations subject to this Decree from contractually allocating as between themselves the burdens of compliance with this Decree, provided that both VEPCO and such purchaser or transferee shall remain jointly and severally liable to the Plaintiffs for those obligations of the Decree specified above, absent approval under this Section of a VEPCO request to allocate liability.

XXIX. GENERAL PROVISIONS

179. Effect of Settlement. This Consent Decree is not a permit; compliance with its terms does not guarantee compliance with all applicable Federal, State, or Local laws or regulations.

180. Criminal Liability. This Consent Decree does not apply to any claim(s) of alleged criminal liability, which are reserved, nor to any claims resolved and then reopened under the terms of this Decree.

181. Limitation on Procedural Bars to Other Claims. In any subsequent administrative or judicial action initiated by Plaintiffs for injunctive relief or civil penalties relating to the facilities covered by this Consent Decree, VEPCO shall not assert any defense or claim based upon principles of waiver, res judicata, collateral estoppel, issue preclusion, claim splitting, or other defense based upon any contention that the claims raised by the Plaintiffs in the subsequent proceeding were brought, or should have been brought, in the instant case; provided, however, that nothing in this Paragraph is intended to affect the validity of Sections XI through XVII (Resolution of Certain Civil Claims).

182. Other Laws. Except as specifically provided by this Consent Decree, nothing in this Consent Decree shall relieve VEPCO of its obligation to comply with all applicable Federal, State, and Local laws and regulations. Subject to Sections XI through XVII, nothing contained in this Consent Decree shall be construed to prevent or limit the Plaintiffs' rights to obtain penalties or injunctive relief under the Clean Air Act or other federal, state, or local statutes or

regulations.

183. Third Parties. This Consent Decree does not limit, enlarge, or affect the rights of any party to this Consent Decree as against any third parties.

184. Costs. Each party to this action shall bear its own costs and attorneys' fees.

185. Public Documents. All information and documents submitted by VEPCO to the United States or the other Plaintiffs under this Consent Decree shall be subject to public inspection, unless subject to legal privileges or protection or identified and supported as business confidential, under applicable law. VEPCO may not seek such protection concerning submittals required by the Decree that concern mitigation projects (Section XXI).

186. Public Comment. The parties agree and acknowledge that final approval by the United States and entry of this Consent Decree is subject to the policy statement reproduced at Title 28 C.F.R. § 50.7, which provides for notice of the lodging of this Consent Decree in the Federal Register, an opportunity for public comment, and the right of the United States to withdraw or withhold consent if the comments disclose facts or considerations which indicate that the Consent Decree is inappropriate, improper, or inadequate.

187. Notice. Unless otherwise provided herein, notifications to or communications with the Plaintiffs or VEPCO shall be deemed submitted on the date they are postmarked and sent either by overnight mail, return receipt requested, or by certified or registered mail, return receipt requested. Except as otherwise provided herein, when written notification to or communication with the Plaintiffs or VEPCO is required by the terms of this Consent Decree, it shall be addressed as follows:

For the United States of America:

Chief
Environmental Enforcement Section
U.S. Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, D.C. 20044-7611
DJ# 90-5-2-1-07122

– and –

Director, Air Enforcement Division
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
Ariel Rios Building [2242A]
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

– and –

Regional Administrator
U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19106

For Commonwealth of Virginia:

Director
Virginia Department of Environmental Quality
629 East Main Street
P.O. Box 10009
Richmond, VA 23240-0009

For State of West Virginia:

Director, Division of Air Quality
Department of Environmental Protection
7012 MacCorkle Avenue SE
Charleston, WV 25304

For State of New York:

Bureau Chief
Environmental Protection Bureau
New York Attorney General's Office

120 Broadway
New York, New York 10271

For State of New Jersey:

Administrator
Air and Environmental Quality Compliance and Enforcement
P.O. Box 422
401 East State Street, Floor 4
Trenton, NJ 08625

– and –

Section Chief
Environmental Enforcement
Division of Law
P.O. Box 093
25 Market Street, 7th Floor
Trenton, NJ 08625

For State of Connecticut:

Department Head
Environmental Protection Department
Connecticut Attorney General's Office
55 Elm Street
Hartford, CT 06106

For VEPCO:

Senior Vice President – Fossil and Hydro
Dominion Energy – Dominion Generation
5000 Dominion Boulevard
Glenn Allen, VA 23060

Any Party may change either the notice recipient or the address for providing notices to it by serving all other parties with a notice setting forth such new notice recipient or address.

188. Procedure for Modification. There shall be no modification of this Decree unless such modification is in writing, is filed with the Court, and either:

- (a) bears the written approval of all of the Parties and is approved by the Court, or
- (b) is otherwise allowed by applicable law.

189. Continuing Jurisdiction. The Court shall retain jurisdiction of this case after entry of this Consent Decree to enforce compliance with the terms and conditions of this Consent Decree and to take any action necessary or appropriate for its interpretation, construction, execution, or modification. During the term of this Consent Decree, any party may apply to the Court for any relief necessary to construe or effectuate this Consent Decree.

190. Complete Agreement. This Consent Decree constitutes the final, complete, and exclusive agreement and understanding among the parties with respect to the settlement embodied in this Consent Decree. The parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Consent Decree, including Appendices A (“Coal-Fired Steam-Electric Generating Units Constituting the VEPCO System”), B (“Consent Decree Reporting Form”), and C (“Mitigation Projects that Shall be Completed Under this VEPCO Consent Decree”). Appendices A through C are incorporated into and part of this Consent Decree

191. Non-Severability Absent Re-Adoption by the Parties. If this Consent Decree, in whole or in part, is held invalid by a court vested with jurisdiction to make such a ruling, and if such ruling becomes a final judgment, then after entry of such final judgment, no Party shall be bound to any undertaking that would come due or have continued under this Decree after the date of that final judgment, and the Decree shall be void from the entry of such final judgment. At any time, upon consent of all the Parties, the Parties may preserve that portion of this Decree not held invalid by agreeing, in a writing submitted to this Court, to keep in force that portion of this Decree not held invalid.

192. Citations to Law. Except as expressly provided otherwise by this Decree,

provisions of law expressly cited by this Decree shall be construed to mean the provision cited as it is defined under law.

193. Meaning of Terms. Every term expressly defined by this Decree shall have the meaning given to that term by this Decree, and every other term used in this Decree that is a term used under the Act or the regulations implementing the Act shall mean in this Decree what such term means under the Act or those regulations.

194. Calculating and Measuring Performance. Performance standards, emissions limits, and other quantitative standards set by or under this Decree must be met to the number of significant digits in which the standard or limit is expressed. Thus, for example, an Emissions Rate of 0.090 is not met if the actual Emissions Rate is 0.091. VEPCO shall round the fourth significant digit to the nearest third significant digit, or the third significant digit to the second significant digit, depending upon whether the limit is expressed to two or three significant digits. Thus, for example, if an actual Emissions Rate is 0.0904, that shall be reported as 0.090, and shall be in compliance with an Emissions Rate of 0.090, and if an actual Emissions Rate is 0.0905, that shall be reported as 0.091, and shall not be in compliance with an Emissions Rate of 0.090. VEPCO shall collect and report data to the number of significant digits in which the standard or limit is expressed. As otherwise applicable and unless this Decree expressly directs otherwise, the calculation and measurement procedures established under 40 C.F.R. Parts 75 and 76 apply to the measurement and calculation of NO_x and SO₂ under this Decree.

195. Independent Requirements. Each limit and / or other requirement established by or under this Decree is a separate, independent requirement.

196. Written Statements to be Sent to all Plaintiffs. Notwithstanding any other

provision of this Decree, VEPCO shall supply to all Parties to this Decree all notices, reports, applications, elections, and any other written statement that the Decree requires VEPCO to supply to any Party to the Decree.

197. Applicable Law on Data Use Still Applies. Nothing in this Consent Decree alters or waives any applicable law (including, but not limited to, any defenses, entitlements, or clarifications related to the Credible Evidence Rule (62 Fed. Reg. 8314, Feb. 27, 1997)) concerning use of data for any purpose under the Act, generated by the reference methods specified herein or otherwise.

XXX. CONDITIONAL TERMINATION OF ENFORCEMENT, CONTINUATION OF TERMS, AND FIRST RESORT TO TITLE V PERMIT

198. Termination as to Completed Tasks. As soon as VEPCO completes any element of construction required by this Decree or completes any requirement that will not recur, VEPCO may seek termination of that portion of the Decree that dictated such requirement.

199. Conditional Termination of Enforcement through Consent Decree. Once VEPCO:

(A) believes it has successfully completed and commenced successful operation of all pollution controls (new and upgrades) required by Decree;

(B) holds final, Title V Permits -- covering all Units in the VEPCO System -- that include as enforceable permit terms all of the performance and other requirements for the VEPCO System as required by Section X ("Permits"), and

(C) certifies that the date is later than December 31, 2015;

then VEPCO may file a notice with the Court of these facts. Unless within forty-five

(45) days after VEPCO files such a notice, any Plaintiff objects to the accuracy of that notice, enforcement based on Decree violations that occurred after the filing of the notice shall be through the applicable Title V Permit and not through this Decree.

200. Resort to Enforcement under this Consent Decree. Notwithstanding paragraph 199, if enforcement of a provision of this Decree cannot be pursued by a party under the applicable Title V permit, or if a Decree requirement was intended to be part of the Title V Permit and did not become or remain part of such permit, then such requirement may be enforced under the terms of this Decree at any time.

SO ORDERED, THIS _____ DAY OF _____, 2003.

UNITED STATES DISTRICT COURT JUDGE

FOR THE UNITED STATES OF AMERICA:

THOMAS L. SANSONETTI
Assistant Attorney General
Environmental and Natural Resources Division
United States Department of Justice

THOMAS A. MARIANI
Assistant Chief
Environmental Enforcement Section
Environmental and Natural Resources Division
United States Department of Justice

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

BRUCE C. BUCKHEIT
Director, Air Enforcement Division
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency

RICHARD ALONSO
Attorney Advisor
Air Enforcement Division
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency

DONALD S. WELSH
Regional Administrator
Region 3
United States Environmental Protection Agency

FOR THE STATE OF NEW YORK:

ELLIOT SPITZER
Attorney General
State of New York

FOR THE STATE OF NEW JERSEY:

PETER C. HARVEY
Acting Attorney General of New Jersey

FOR THE STATE OF CONNECTICUT:

RICHARD BLUMENTHAL
Attorney General
State of Connecticut

CARMEL A. MOTHERWAY
Assistant Attorney General
State of Connecticut

KIMBERLY P. MASSICOTTE
Assistant Attorney General
State of Connecticut

**FOR THE COMMONWEALTH OF
VIRGINIA:**

ROGER L. CHAFFE
Senior Assistant Attorney General
Commonwealth of Virginia

ROBERT G. BURNLEY
Director
Department of Environmental Quality
Commonwealth of Virginia

FOR THE STATE OF WEST VIRGINIA:

JOHN BENEDICT
Director
Division of Air Quality
West Virginia Department of Environmental
Protection

ROLAND T. HUSON, III
Senior Counsel
Office of Legal Services
West Virginia Department of Environmental
Protection

**FOR VIRGINIA ELECTRIC AND POWER
COMPANY:**

EDWARD RIVAS
Sr. Vice President
Fossil and Hydro
Virginia Electric and Power Company

APPENDIX A TO “VEPCO” CONSENT DECREE
THE UNITS COMPRISING THE “VEPCO SYSTEM” IN
UNITED STATES, ET AL. V. VIRGINIA ELECTRIC AND POWER CO.

Steam Electric <u>Generating Unit</u> : Plant Name, Unit Number, Unit Abbreviation, & Nominal Nameplate (“MW”)	Improved Unit for SO ₂ Under Decree Paragraph 64	Improved Unit for NO _x Under Decree Paragraph 56	Optimization for PM Required under Decree Section VII
Bremo Unit 3 (“BR 3”) 69 MW	NO	NO	YES
Bremo Unit 4 (“BR 4”) 185 MW	NO	NO	YES
Chesapeake Unit 1 (“CEC 1”) 112 MW	NO	NO	YES
Chesapeake Unit 2 (“CEC 2”) 112 MW	NO	NO	YES
Chesapeake Unit 3 (“CEC 3”) 185 MW	NO	YES	YES
Chesapeake Unit 4 (“CEC 4”) 239 MW	NO	YES	YES
Clover Unit 1 (“CL 1”) 393 MW	YES	NO	YES
Clover Unit 2 (“CL 2”) 393 MW	YES	NO	YES
Chesterfield Unit 3 (“CH 3”) 112 MW	NO	NO	YES
Chesterfield Unit 4 (“CH 4”) 187 MW	NO	YES	YES
Chesterfield Unit 5 (“CH 5”) 359 MW	YES	YES	YES
Chesterfield Unit 6 (“CH 6”) 694 MW	YES	YES	YES

APPENDIX A (continued)

Steam Electric <u>Generating Unit</u> : Plant Name, Unit Number, Unit Abbreviation, & Nominal Nameplate (“MW”)	Improved Unit for SO ₂ Under Decree Paragraph 64	Improved Unit for NO _x Under Decree Paragraph 56	Optimization for PM Required under Decree Section VII
Mt. Storm Unit 1 (“MS 1”) 551 MW	YES	YES	YES
Mt. Storm Unit 2 (“MS 2”) 551 MW	YES	YES	YES
Mt. Storm Unit 3 (“MS 3”) 552 MW	YES	YES	YES
North Branch (“NB”) 92 MW	NO	NO	YES
Possum Point Unit 3 (“PP 3”) 114 MW	YES	YES	NO
Possum Point Unit 4 (“PP 4”) 239 MW	YES	YES	NO
Yorktown Unit 1 (“YT 1”) 187 MW	NO	NO	YES
Yorktown Unit 2 (“YT 2”) 187 MW	NO	NO	YES

Appendix A: Coal Specifications for Sulfur

Unit	Fuel SO2 Specification (lbs SO2/mmBtu)	Fuel Sulfur Specification (lbs S/mmBtu)	Fuel Sulfur Specification (% by weight)
Bremo Unit 3	2.64		
Bremo Unit 4	2.64		
Chesapeake Unit	2.64		
Chesterfield Unit	2.64		
Chesterfield Unit	2.64		
Chesterfield Unit	2.64		
Chesterfield Unit	2.64		
Clover Unit 1	N/A		
Clover Unit 2	N/A		
Mt. Storm Unit 1		1.9	
Mt. Storm Unit 2		1.9	
Mt. Storm Unit 3		1.9	
North Branch			4
Possum Point	N/A		
Possum Point	N/A		
Yorktown Unit 1	2.64		
Yorktown Unit 2	2.64		

APPENDIX B - REPORTING REQUIREMENTS

VEPCO shall submit its semi-annual report as required by Paragraph 137 electronically and in hard copy form. Each semi-annual report shall be certified as required by Paragraph 139 of this Consent Decree. The semi-annual report is in addition to all other notices and reporting obligations under the Consent Decree. VEPCO shall provide the following information in each of the required semi-annual reports:

I. NO_x Reporting Requirements

A. Installation and Seasonal/Annual Operation of SCRs

1. The progress of construction (such as, if construction is not underway, the construction schedule, dates of contract execution, major component delivery, and, if construction is underway, the estimated percent of installation and estimated construction completion date) and, once construction is complete, the date of final installation and of acceptance testing under the SCR contract, of SCR controls required under Paragraph 56 of the Consent Decree.
2. Commencing when 30-Day Rolling Average Emission Rates become applicable, the 30-Day Rolling Average Emission Rate (lbs/mmBTU) as defined in Paragraph 5, for each operating day for each Unit utilizing SCRs required under Paragraph 56 of the Consent Decree.
3. Within the first report that identifies a 30-Day Rolling Average Emission Rate (lbs/mmBTU) for each SCR, at least five (5) example calculations (including raw CEM data in electronic format for the calculation) used to determine the 30-Day Rolling Average Emission Rate. If at any time VEPCO changes any aspect within the methodology used in determining the 30-Day Rolling Average Emission Rate, VEPCO shall explain the change and the reason for using the new methodology.
4. All instances, and explain events, that cause deviations from any 30-Day Rolling Average Emission Rate in lbs/mmBTU required in Paragraph 56. VEPCO shall identify any corrective actions taken in response to such deviation.
5. A description of the how VEPCO met the SCR performance efforts required in Paragraph 57 (Best Efforts).

B. Interim Control of NO_x Emissions

1. In addition to the notice required under paragraph 59, within each semi-annual report covering activities in 2004 through 2007, identify the compliance option selected as between Paragraph 59(A) and 59(B) for that given year and

the date that the notification required in Paragraph 59 was submitted to the Plaintiffs, if any such notification is required under Paragraph 59.

2. If VEPCO implements option (A) under Paragraph 59, report which Unit or Units will utilize year-round SCR control(s) and the amount of MW represented by the identified Units and report for each Unit controlled with year-round SCR the 30-Day Rolling Average Emission Rate (lbs/mmBTU) as defined in Paragraph 5 for each operating day.
3. If VEPCO implements option (B) under Paragraph 59, the Seasonal System-Wide Emission Rate (lbs/mmBTU) as defined in Paragraph 44, within the first report that identifies a Seasonal System Wide Emission Rate, provide at least five (5) example calculations (including raw CEM data in electronic format for the calculations) used to determine the Seasonal System Wide Emission Rate. If at any time VEPCO changes any aspect within the methodology used in determining the Seasonal System-Wide Emission Rate, VEPCO shall explain the change and the reason for using the new methodology.

C. Annual NO_x System-Wide Requirements

1. Within the last report for any given year for which a report is due, report the total NO_x emissions from the VEPCO System, and for each VEPCO System Unit, for the calendar year covered by the report as tons per year.
2. Within the last report for any given year for which a report is due, commencing in 2013, report the System Wide Annual Emission Rate and the underlying calculation for the VEPCO System for the previous calendar year (starting with the year 2013) as lbs/mmBTU.

D. Miscellaneous NO_x Provisions

1. For each Unit in the “VEPCO System” that utilizes SCR control pursuant to a requirement of the Consent Decree, all NO_x emissions (in tons) excluded from any NO_x emission calculation, as permitted in Paragraph 5 and an explanation for excluding such emission, as specified in subparagraph 2, below. The requirement to report tons of emissions excluded, but no other provisions, shall expire on December 31, 2015.
2. Commencing when any VEPCO System Unit becomes subject to a 30-Day Rolling Average Emissions Rate for NO_x and utilizes an SCR pursuant to a requirement of the Consent Decree, VEPCO shall report:
 - a. The date and time that the fire is extinguished;

- b. The date and time that the Unit is restarted and the date and time that the Unit is synchronized with an utility electric distribution system after the restart;
- c. The NO_x emissions emitted by the Unit prior to the time that the Unit was synchronized with an utility electric distribution system;
- d. On the fifth and subsequent Cold Start Up Periods that occur within any 30-Day period, the earlier of the date and time that (1) is eight hours after the Unit is synchronized with a utility electric distribution system, or (2) the flue gas has reached the SCR operational temperature as specified by the catalyst manufacturer;
- e. The NO_x emissions emitted during the fifth and subsequent Cold Start Up Periods;
- f. Identification of the date, time and duration of any period when emissions are excluded due to a malfunction of the SCR, as provided by Paragraph 5, and supporting information regarding the malfunction, the cause, and corrective actions taken, and the amount of NO_x emissions during the malfunction.

E. Possum Point

The tons of NO_x from Possum Point Units 3 and 4 rolled daily as determined by Paragraph 96.

II. SO₂ Reporting Requirements

A. SO₂ Removal Efficiency Requirements

- 1. The progress of construction and improvement (such as, if construction is not underway, the dates of contract execution, the estimated percent of installation, and major component delivery) and, once construction and improvement is complete, the date of final installation, improvement, and operation of FGDs required under Paragraph 64 of the Consent Decree, and of initial performance testing, if any.
- 2. Commencing when any 30-Day Rolling Average Removal Efficiency for SO₂ becomes applicable for each FGD as defined in Paragraph 64, the 30-Day Rolling Average Removal Efficiency for SO₂ for each operating day.
- 3. Within the first report that identifies a 30-Day Rolling Average Removal Efficiency for each FGD, at least five (5) example calculations (including raw CEM data in electronic format for the calculations) used to determine the 30-Day Rolling Average Removal Efficiency for SO₂. If at any time VEPCO

changes any aspect within the methodology used in determining the 30-Day Rolling Average Removal Efficiency for SO₂, VEPCO shall explain the change and the reason for using the new methodology.

B. SO₂ Emission Rate

1. For Clover Units 1 & 2, Mt. Storm Units 1, 2, & 3 and Chesterfield Units 5 & 6 upon qualifying for a 30-Day Rolling Average Emission Rate as provided in Paragraph 66 of the Consent Decree, the 30-Day Rolling Average Emission Rate (lbs/mmBTU), as defined in Paragraph 5, for each operating day for each Unit qualifying for the SO₂ emission rate.
2. Within the first report that identifies a 30-Day Rolling Average Emission Rate for each FGD, at least five (5) example calculations (including raw CEM data in electronic format for the calculations) used to determine the 30-Day Rolling Average Emission Rate. If at any time VEPCO changes any aspect within the methodology used in determining the 30-Day Rolling Average Emission Rate, VEPCO shall explain the change and the reason for using the new methodology.
3. A description of the how VEPCO met the FGD performance efforts required in Paragraph 69 (Best Efforts).

C. FGD Bypass Days at Mt. Storm (Consent Decree Paragraph 67)

1. For each FGD outage or FGD downtime at Mt. Storm Units 1, 2 or 3, as allowed under Paragraph 67, the following information:
 - a. The date and time the outage/downtime began;
 - b. The date and time that the FGD that was offline was returned to operation and the duration of the FGD outage/downtime;
 - c. A narrative explanation of corrective or maintenance actions taken by VEPCO;
 - d. The total SO₂ emitted from the Unit during the FGD outage/downtime;
 - e. The total amount of SO₂ emission, in tons, that would have been emitted at the Unit during the FGD outage/downtime had VEPCO burned coal with the sulfur content required by the Consent Decree, during the FGD outage/downtime;
 - f. The amount of allowances to be surrendered and provide evidence that VEPCO surrendered to EPA the amount of SO₂ Allowances required to be surrendered under Paragraph 67;
 - g. Report that the Unit with the FGD outage/downtime was not dispatched ahead of the other Mount Storm Units or the Clover Power Station Units during the FGD outage/downtime and the dispatch order

for each Unit of the VEPCO System during the FGD outage/downtime; and

- h. By Unit, a year-to-date tabulation of the number and duration of FGD outages/downtime at Mt. Storm Units 1, 2, & 3, and the total amount of FGD outage/downtime permitted by the Consent Decree for that year.

D. Miscellaneous SO₂ Provisions

1. Commencing when any VEPCO System Unit becomes subject to a 30-Day Rolling Average Removal Efficiency or Emission Rate requirement for SO₂, for each Unit in the “VEPCO System” that utilizes FGD control pursuant to a requirement of the Consent Decree, when a Unit is taken out of service and the fire in the boiler is extinguished during the reporting period:
 - a. The date and time that the fire is extinguished;
 - b. The date and time the Unit is restarted;
 - c. The date and time that the Unit is synchronized with an utility electric distribution system after the restart; and
 - d. SO₂ emissions emitted by the Unit prior to the time that the Unit was synchronized with a utility electric distribution system, ending on December 31, 2015.
2. Within the last report for any given year, report the total SO₂ emissions from the VEPCO System for the calendar year covered by the report as tons per year, and for each Unit in the VEPCO System, report the annual SO₂ emissions in tons per year for the calendar year covered by the report.

E. Annual Surrender of SO₂ Allowances

1. Beginning in 2013, whether it made the annual SO₂ allowance surrender required by the Consent Decree to the U.S. EPA and shall provide documentation verifying this surrender.
2. If VEPCO surrenders the SO₂ allowances to a third party, the following information:
 - a. The identity of the third-party recipients(s) of the SO₂ allowances and a listing of the serial numbers of the transferred allowances;
 - b. A certification from the third-party recipient(s) that it (they) will not sell, trade or otherwise exchange any of the allowances and will not use any of the allowances to meet any obligation imposed by any law.
 - c. Within 12 months after the first report of the transfer, VEPCO shall provide documentation that the third-party recipients(s) of the SO₂ allowances permanently surrendered the allowances to U.S. EPA

within one year after VEPCO transferred the allowances the third-party recipient(s).

F. Super-compliance Trading of Allowances

1. The amount of SO₂ Allowances and NO_x emission allowances or credits used or traded pursuant to Paragraph 75 and Section XVIII and the calculations or data justifying the generation of the used or traded allowances or credits.

III. PM Requirements

A. Use of PM Controls Existing at the Time the Decree was Entered and PM Emissions Rate

1. Until a Unit is subject to a PM emissions rate pursuant to this Consent Decree, the following information for each Unit:
 - a. The calendar days on which the ESP was not operating at any time that the Unit was in operation;
 - b. If, in accordance with Paragraphs 78 and 79, an ESP or portion thereof fails, does not perform in accordance with the equipment manufacturer's specifications or is shutdown by VEPCO, the calendar date of each such instance, the time that the failure or inadequate performance of the ESP began, all corrective actions undertaken by VEPCO and the calendar date and time that the ESP was restored to the mode of operation required by Paragraphs 78 and 79. VEPCO shall also report any additional corrective actions undertaken in response to the event.
2. For each Unit in the VEPCO System at which a PM emission rate applies pursuant to this Consent Decree, the following information:
 - a. The PM Emission Rate (lbs/mmBTU) for the Unit, determined under the Consent Decree;
 - b. If, in accordance with Paragraphs 78 and 79, an ESP or portion thereof fails, or does not perform in accordance with the equipment manufacturer's specifications, the calendar date of each such instance, the time that the failure or sub-par performance of the ESP began, all corrective actions undertaken by VEPCO and the calendar date and time that the ESP was restored to the mode of operation required by Paragraphs 78 and 79. VEPCO shall also report any additional corrective actions undertaken in response to the event.

3. Information required to be reported within the approved PM optimization plans.
4. A description of the how VEPCO met the PM control device performance efforts required in Paragraph 78 (Best Efforts).

B. PM CEMs

1. For each PM CEM installed on a Unit in the VEPCO System:
 - a. If the PM CEM was installed during the reporting period, the date of installation of the PM CEM;
 - b. The dates that the PM CEM operated;
 - c. If the PM CEM did not operate continuously throughout the quarter without interruption whenever the Unit it serves was operating, the date and time that the PM CEM was not operating, a description of the cause of the PM CEM's outage, the steps taken by VEPCO to fix the PM CEM, any additional corrective actions undertaken by VEPCO in response to the event and the time and date that the PM CEM was returned to service.

C. Performance Testing/Monitoring of PM Emission

1. For each Unit in the VEPCO System:
 - a. If the Unit was required to perform a stack test pursuant to the Consent Decree, the executive summary and results of the stack test;
 - b. If the Unit has a PM CEM, the three-hour average emission rate for PM emissions (or such longer period as is specified in any applicable PM emissions limitation requirement), in lb/mmBtu.

IV. Deviation Reporting

- A. In addition to reporting under Paragraph 137, a summary of all deviations that occurred during the reporting period and the date that the deviation was initially reported under Paragraph 138.
- B. Within each deviation report submitted under Paragraph 138, the following information:
 1. The Consent Decree requirement under which the deviation occurred, with a reference to the Consent Decree paragraph containing the requirement;
 2. The date and time that the deviation occurred;

3. The date and time that the deviation was corrected;
4. The data, calculations or other information indicating that a deviation occurred; and
5. A narrative description of the cause or suspected cause of the deviation, the steps taken by VEPCO to correct the deviation and any additional corrective actions taken by VEPCO in response to the deviation.

V. Mitigation Project Reporting

- A. The progress such as the schedule for completion of the project dates of contract execution, and estimated percent of completion of the Mitigation Projects required in Section XXI of the Consent Decree.
- B. The amount of Project Dollars expended on Mitigation Projects.

VI. VEPCO Submissions

A list all plans or submissions and the date submitted to the Plaintiffs for the reporting period, and identify if any are pending the review and approval of the Plaintiff.

VII. VEPCO Capital Projects

A list of all Capital Expenditures performed throughout the VEPCO System on the Boiler Islands in order to determine meeting the threshold established in Paragraphs 111, 124, and 133.

VIII. Additional Information

Provide a response to any reasonable request by the Plaintiffs for any additional information regarding these reporting requirements or the obligations and requirements of this Consent Decree.

APPENDIX C – MITIGATION PROJECTS REQUIREMENTS

In compliance with and in addition to the requirements in Section XXI of the Consent Decree, VEPCO shall comply with the requirements of this Appendix to ensure that the benefits of the environmental mitigation projects are achieved. No Party may submit a proposed plan for a mitigation project until after entry of the Consent Decree.

I. Clean Diesel, Idle Reduction and School Bus Retrofit Project - To Be Conducted within the District of Columbia, Delaware, Maryland, Pennsylvania, Virginia and West Virginia and Resource Lands Project

- A. Within 90 days after entry of the Consent Decree, VEPCO shall submit a plan to EPA for review and approval for the completion of the Clean Diesel, Idle Reduction and School Bus Retrofit Project in which VEPCO shall spend no less than \$2,500,000 Project Dollars to retrofit diesel engines with emission control equipment, replace diesel engines with cleaner engines, subsidize the use of clean diesel fuels or install equipment or implement strategies that will reduce engine idling in the above listed jurisdictions.
- B. The plan shall satisfy the following criteria:
 1. Involve fleets located in geographically diverse areas and/or fleets operated in nonattainment areas or areas at significant risk of nonattainment status within the listed states, taking into account other clean diesel projects called for under this Decree.
 2. Provide for the retrofit of high emitting, in service heavy-duty diesel engines with verified emissions control equipment. Retrofit technology may include but not be limited to oxidation catalysts and particulate matter filters that will reduce particulate matter and hydrocarbon emissions.
 3. Provide for the replacement of engines with those that meet the 2007 engine standards and/or are equipped with verified emission control technology.
 4. Involve vehicles that are located in areas in which ultra low sulfur diesel fuel (ULSD) is already available or is scheduled to become available and where such fuel is required for retrofit technology. For affected municipalities, school districts or similar local government entities whose fleet will be retrofitted, the plan may provide for (a) the procurement of tanks or other infrastructure required enabling that fleet to obtain and use ULSD and (b) offsetting higher fuel costs from the requirement to use ULSD.
 5. Provide for the use of alternative diesel fuels that reduce emissions of particulate matter, nitrogen oxides and/or hydrocarbons including but not

limited to emulsions and biodiesel fuels.

6. Provide for the installation of verified idle reduction technology and/or idle reduction strategies that effectively reduce emissions from idling engines through equipment such as electrification stations and/or implementation of outreach and education programs to implement policies that reduce idling time.
 7. Account for hardware and installation costs, and may provide also for incremental maintenance costs and/or costs of repairs on such hardware for a period of up to four years after installation.
 8. Limit recipients of retrofits to fleets that legally bind themselves to maintain any equipment installed in connection with the project during and after completion of the project.
 9. Establish minimum standards for any third-party with whom VEPCO might contact to carry out this program that include prior experience in arranging vehicle retrofits, ULSD purchases, anti-idling campaigns, etc. and a record of prior ability to interest and organize fleets, school districts, community groups, etc. to join a clean diesel program.
 10. A schedule for completing each portion of the project.
- C. Within 180 days after entry of the Consent Plans, VEPCO shall submit a plan to EPA for review and approval for the identification, acquisition, restoration, management and/or preservation of resource lands to mitigate or compensate for lost service uses possibly resulting from past power plant emissions in which VEPCO shall spend no less than \$500,000. The proposed plan shall satisfy the following criteria:
1. Provide a means for the identification of available resource lands which may be used to mitigate any past impacts of acid rain deposition or other possible effects of power plant emissions and assess the value of such lands in providing such benefits as contributing to carbon sequestration, restoring forest productivity and other relevant factors.
 2. Establish a process for carrying out the plan, including the identification of resources, staff and/or other entities charged with project execution, management and oversight during the terms of the Decree, and develop a related schedule for completing each portion of the project.
 3. Within 180 days after approval of the proposed selection process identify particular plots of land that are consistent with the specifications outlined.
 4. Submit the identified plots of land with recommended selection criteria

within a reasonable period of time. Develop legal options for acquiring, restoring and assuring the continued preservation of identified lands.

- D. Performance - Upon approval of plan by the United States, VEPCO shall complete the mitigation project according to the approved plan and schedule.

II. **Solar Photovoltaic (PV) Project – To Be Conducted in New York State**

- A. New York shall propose to VEPCO and the U.S. a plan using \$2.1 million to accomplish the installation of solar photovoltaics (“PVs”) on municipal buildings in New York. These building would then use the PV-generated energy, in part to help remove some demand for energy from the electrical grid during peak demand periods. The project will be administered through the New York State Energy Research and Development Authority’s (NYSERDA) Solar Photovoltaics program.
- B. New York’s proposed plan must:
 - 1. Describe how the work or project to be performed is consistent with requirements of Section II.A, above;
 - a) Include a general schedule and budget (for \$2.1 million) for completion of the work; including payment instructions for VEPCO’s submission of funds to the State, along with a requirement of periodic reports to all Parties on the progress of the work called for in the proposed plan through completion of the project;
 - b) Describe generally the expected environmental benefit for project or work called for under the proposed plan; and
 - c) Describe briefly how work or project described in the proposed plan meets the requirements of Section XXI of the Decree.
- C. VEPCO’s obligation for this project shall terminate once a plan exists for this project or work and VEPCO has transferred at least \$2.1 million to New York to complete the project or work described in the plan. VEPCO shall transfer this sum as soon as possible after the proposed plan is developed but no later than December 31, 2003, unless untimely submission of the proposed plan or material deficiency in such plan requires payment after that date.
- D. If New York (or NSYERDA) is later unwilling or unable to perform the project specified here, then New York, in consultation with VEPCO, shall select an alternative project or projects designed to accomplish the same kinds of goals as intended for this project. After proceeding through this proposed plan process

for the alternative project, VEPCO shall fund such project or projects in the amount of \$2.1 million.

III. Mitigating Harm to Health Related to Air Pollution in New Jersey and New York: Public Transit -- Diesel Bus Catalyzed Particulate Filters

- A. New Jersey shall supply to VEPCO and the U.S. a plan to use \$2.7 million to accomplish the installation of catalyzed particulate filters (CPFs) on late-model conventional diesel buses used to transport commuters from various locations in the State of New Jersey into New York City. Operating exclusively on ultra-low sulfur diesel fuel, these CPF-equipped buses will further significantly reduce harmful emissions of carbon monoxide, hydrocarbons, and particulate matter in both New Jersey and New York. The project will be administered by the New Jersey Transit Corporation.
- B. New Jersey's proposed plan must:
 - 1. Describe how the work or project to be performed is consistent with requirements of Section III.A, above;
 - 2. Include a general schedule and budget (for \$2.7 million) for completion of the work, including payment instructions for VEPCO's submission of funds to the State, along with a requirement of periodic reports to all Parties on the progress of the work called for in the proposed plan through completion of the project;
 - 3. Describe generally the expected environmental benefit for project or work called for under the proposed plan; and
 - 4. Describe briefly how the work or project described in the proposed plan meets the requirements of Section XXI of the Decree.
- C. VEPCO's obligation for this project shall terminate once a plan exists for this project or work and VEPCO has transferred at least \$2.7 million to New Jersey to complete the project or work described in the plan. VEPCO shall transfer this sum as soon as possible after the proposed plan is developed but no later than December 31, 2003, unless untimely submission of the proposed plan or material deficiency in such plan requires payment after that date.

IV. School Bus Retrofit Project – To be Conducted in the State of Connecticut

- A. The State of Connecticut will supply VEPCO and the U.S. a plan to use \$1.1 million to purchase and install particulate filters for diesel school buses that operate in selected urban communities in that State. The proposed plan may include any combination of the following: (i) conversion of conventional diesel-powered, school buses to buses with particulate traps, (ii) procuring of ultra-low sulfur diesel fuel (and

necessary infrastructure) to power for up to three years buses converted in the manner described in (i), and/or (iii) install additional air pollution controls on such buses. The proposed plan will be limited to pollution control devices, fuels, and other measures needed to convert diesel buses to include CRT or other particulate traps and other controls (including support infrastructure).

B. Connecticut's proposed plan must:

1. Describe how the work or project to be performed is consistent with requirements of Section IV.A, above;
2. Include a general schedule and budget (for \$1.1 million) for completion of the work, including payment instructions for VEPCO's submission of funds to the State, along with a requirement of periodic reports to all Parties on the progress of the work called for in the proposed plan through completion of the project;
3. Describe generally the expected environmental benefit for project or work called for under the proposed plan; and
4. Describe briefly how the work or project described in the proposed plan meets the requirements of Section XXI of the Decree.

C. VEPCO's obligation for this project shall terminate once a plan exists for this project or work and VEPCO has transferred at least \$1.1 million to Connecticut to complete the project or work described in the plan. VEPCO shall transfer this sum as soon as possible after the proposed plan is developed but no later than December 31, 2003, unless untimely submission of the proposed plan or material deficiency in such plan requires payment after that date.

V. School Bus Retrofit Program to be Carried Out in Commonwealth of Virginia

A. Commonwealth of Virginia shall supply to VEPCO and the U.S. a plan to use \$2.0 million to accomplish any combination of the following concerning in-service diesel-powered school buses in the Commonwealth: retrofitting buses with pollution control devices and techniques and infrastructure needed to support such retrofits, engine replacements that will reduce emissions of particulates or ozone precursors, and changeover to CNG fuel or low diesel fuel. These projects are to be carried out in areas either non in attainment with ambient air quality standards in the Commonwealth or at risk of being reclassified as nonattainment, such as Fairfax, Hampton Roads, and Virginia Beach

B. Commonwealth's proposed plan must:

1. Describe how the work or project to be performed is consistent with requirements of Section V.A, above;
2. Include a general schedule and budget (for \$2.0 million) for completion of

the work, including payment instructions for VEPCO's submission of funds to the Commonwealth, along with a requirement of periodic reports to all Parties on the progress of the work called for in the proposed plan through completion of the project;

3. Describe generally the expected environmental benefit for project or work called for under the proposed plan; and
4. Describe briefly how the work or project described in the proposed plan meets the requirements of Section XXI of the Decree.

- C. VEPCO's obligation for this project shall terminate once a plan exists for this project or work and VEPCO has transferred at least \$2.0 million to the Commonwealth to complete the project or work described in the plan. VEPCO shall transfer this sum as soon as possible after the proposed plan is developed but no later than December 31, 2003, unless untimely submission of the proposed plan or material deficiency in such plan requires payment after that date

VI. Protecting Forests and other Natural Resources in West Virginia's Cheat Gorge / Big Sandy Area.

- A. The State of West Virginia will supply VEPCO and the U.S. a \$2.0 million proposed plan for the purchase and maintenance of property and/or conservation easements that would preserve forests and other environmentally sensitive areas in and around the Cheat Gorge / Big Sandy area of the West Virginia, for the purposes of making or expanding a public wildlife management area in the State and thus preserving an important sources of carbon sequestration. The proposed plan also will include needed steps for securing and maintaining valid conservation easements under applicable law and for securing clear title, as applicable.

- B. West Virginia's proposed plan must:

1. Describe how the work or project to be performed is consistent with requirements of Section VI.A, above;
2. Include a general schedule and budget (for \$2.0 million) for completion of the work; including payment instructions for VEPCO's submission of funds to the State or its designee, along with a requirement of periodic reports to all Parties on the Progress of the work called for in the proposed plan through completion of the project;
3. Describe generally the expected environmental benefit for project or work called for under the proposed plan; and
4. Describe briefly how work or project described in the proposed plan meets the requirements of Section XXI of the Decree.

- C. VEPCO's obligation for this project shall terminate once a plan exists for this project

or work and VEPCO has transferred at least \$2.0 million to West Virginia or its designee. VEPCO shall transfer this sum as soon as possible after the proposed plan is developed but no later than December 31, 2003, unless untimely submission of the proposed plan or material deficiency in such plan requires payment after that date.

- D. If West Virginia is unwilling or unable to perform the project specified here, West Virginia, in consultation with VEPCO, shall select an alternative project or projects designed to accomplish the same kinds of goals as intended for this project. After proceeding through this proposed plan process for this alternative project(s), VEPCO shall fund such project or projects in the amount of \$2.0 million.

VII. National Park Service Alternative-Fueled and Hybrid Vehicles Project.

- A. The National Park Service will supply VEPCO a plan for using \$1.0 million in accordance with the Park System Resource Protection Act, 16 U.S.C Section 19jj, to improve air quality in and about the Shenandoah National Park, either by securing alternative-fueled vehicles for trial use in and around the Park (including necessary ancillary equipment such as a fueling station) or for implementing another project also intended to reduce damage to those resources caused by air pollution suffered by the Park.
- B. NPS's proposed plan must:
 - 1. Describe how the work or project to be performed is consistent with requirements of Section VII.A, above;
 - 2. Include a general schedule and budget (for \$1.0 million) for completion of the work; including payment instructions for VEPCO's submission of funds to the Natural Resource Damage and Assessment Fund, along with a requirement of periodic reports to all Parties on the Progress of the work called for in the proposed plan through completion of the work.
 - 3. Describe generally the expected environmental benefit for project or work called for under the proposed plan; and
 - 4. Describe briefly how work or project described in the proposed plan meets the requirements of Section XXI of the Decree.
- C. VEPCO's obligation for this project shall terminate once an approved plan exists for this project or work and VEPCO has transferred at least \$1.0 million to the Natural Resource Damage and Assessment Fund. VEPCO shall transfer this sum as soon as possible after the proposed plan is approved but no later than December 31, 2003, unless untimely submission of the proposed plan or material deficiency in such plan requires payment after that date.

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Monongahela Power Company
Harrison Power Station
R30-03300015-2015 (MM01)
Title V Minor Permit Modification

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R30-03300015-2015 (mm01)

I.D. No. _____ Reg. 30
Company Monongahela
Facility Harrison Region 6
Initials Beena

NON-CONFIDENTIAL

west virginia department of environmental protection

Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Telephone Number: (304) 926-0475
Fax Number: (304) 926-0479

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
dep.wv.gov

September 29, 2016

CERTIFIED MAIL
91 7199 9991 7037 0982 1524

Mr. Gary J. Dinzeo
Director
PO Box 600
Haywood, WV 26366-0600

RE: Title V Minor Modification
Monongahela Power Company
Harrison Power Station
R30-03300015-2015 (MM01)

Dear Mr. Dinzeo:

Enclosed please find the revised pages of the Title V Minor Permit Modification and Fact Sheet for Monongahela Power Company's Harrison Power Station located in Harrison County. This permit is issued in accordance with the West Virginia Air Pollution Control Law (WV Code § 22-5-1 et. seq.) and legislative rules promulgated thereunder, including 45CSR30.

Operation of this facility shall be in accordance with all terms, conditions and limitations of this revised permit. Keep in mind that the permit shield, in accordance with subsection 5.6 of 45CSR30 does not extend to permit changes associated with the minor modification procedure under which this revision was conducted. Please note that the expiration date of this permit has not changed from the date stated in the initial issuance of the permit, and thus will expire on June 2, 2020.

If you have any questions or need any further assistance, please feel free to contact the permitting engineer, Beena Modi, at 304-926-0499 ext. 1228.

Sincerely,

Sandra Adkins
Sandra Adkins
Permitting

NON-CONFIDENTIAL

c: Mr. James A. Lefik (via email)

West Virginia Department of Environmental Protection
Division of Air Quality



Title V Operating Permit Revision

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

For Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Action Number: MM01 **SIC:** 4911
Name of Permittee: Monongahela Power Company
Facility Name/Location: Harrison Power Station
County: Harrison
Facility Address: 800 Cabin Hill Drive, Greensburg, PA 15601

Description of Permit Revision:

This modification incorporates the changes approved under R13-2988A and R13-2988B to install a Refined Coal System for the application of sorbent chemicals to coal for NO_x and possible Hg, and SO₂ reduction/control. Also seasonal (Oct - April; May - Sept) NO_x emission rates (lb/mmBtu) were added to the permit for Units 1, 2 and 3 boilers based on a 30 day rolling average.

Title V Permit Information:

Permit Number: R30-03300015-2015
Issued Date: June 2, 2015
Effective Date: June 16, 2015
Expiration Date: June 2, 2020

Directions To Facility: From the junction of State Route 20 and US Route 19 near Haywood, take Route 20 approximately one mile west to the facility.

THIS PERMIT REVISION IS ISSUED IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL ACT (W.VA. CODE §§ 22-5-1 ET SEQ.) AND 45CSR30 - "REQUIREMENTS FOR OPERATING PERMITS." THE PERMITTEE IDENTIFIED AT THE FACILITY ABOVE IS AUTHORIZED TO OPERATE THE STATIONARY SOURCES OF AIR POLLUTANTS IDENTIFIED HEREIN IN ACCORDANCE WITH ALL TERMS AND CONDITIONS OF THIS PERMIT.

A blue ink signature of William F. Durham, written in a cursive style.

William F. Durham
Director

September 27, 2016
Date Issued

Permit Number: R30-03300015-2015
Permittee: Monongahela Power Company
Facility Name: Harrison Power Station
Permittee Mailing Address: 800 Cabin Hill Drive, Greensburg, PA 15601

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Haywood, Harrison County, West Virginia
Facility Mailing Address:	800 Cabin Hill Drive, Greensburg, PA 15601
Telephone Number:	304-584-2348
Type of Business Entity:	Limited Liability Company
Facility Description:	Electric Generating Service
SIC Codes:	4911
UTM Coordinates:	557.392 Easting • 4359.489 Northing • Zone 17

Permit Writer: Beena Modi

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

Table of Contents

1.0. Emission Units and Active R13, R14, and R19 Permits 3

2.0. General Conditions10

3.0. Facility-Wide Requirements and Permit Shield19

Source-specific Requirements

4.0. Source-Specific Requirements [Boilers].....27

5.0. Source-Specific Requirements [Lime Handling Facilities].....35

6.0. Source-Specific Requirements [Crusher CRU-03 and Conveyor C-11]40

7.0. Source-Specific Requirements [Emergency Diesel Generators].....41

**8.0. Source-Specific Requirements [Emission Unit IDs- RDRU, BF-01, CV-01 to CV-04
and ST-003].....45**

Appendix A [45CSR2 and 45CSR10 Monitoring Plan]

Appendix B [Harrison Power Station CAIR Permit Application]

Appendix C [Class II Emergency Generator General Permit G60-C]

Appendix D [Harrison Power Station Acid Rain Permit]

1.0 Emission Units and Active R13, R14, and R19 Permits

1.1 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device
Combustion Sources					
Unit B1	Stack1	Harrison Unit 1	1972	6325 MMBtu/hr	ESP-1, FGD-1, SCR-1, LNB
Unit B2	Stack2	Harrison Unit 2	1973	6325 MMBtu/hr	ESP-2, FGD-2, SCR-2, LNB
Unit B3	Stack3	Harrison Unit 3	1974	6325 MMBtu/hr	ESP-3, FGD-3, SCR-3, LNB
Boiler 1A	Aux Boiler Stack	Auxiliary Boiler A	1972	202.2 MMBtu/hr	N/A
Aux Blr PB	Aux Boiler Stack	Auxiliary Boiler B	1972	202.2 MMBtu/hr	N/A
EDG1	EDG1	Emergency Generator No. 1	1971	1000 kW	N/A
EDG2	EDG2	Emergency Generator No. 2	1971	1000 kW	N/A
EDG3	EDG3	Emergency Generator No. 3	1994	350 kW	N/A
EG-1	EG-1	Emergency Generator	2012	108.2 kW	N/A
Control Devices					
ESP-1	ESP-1	Dry Plate Electrostatic Precipitator	1972	2.26x10 ⁶ ACFM	FGD-1
ESP-2	ESP-2	Dry Plate Electrostatic Precipitator	1973	2.26x10 ⁶ ACFM	FGD-2
ESP-3	ESP-3	Dry Plate Electrostatic Precipitator	1974	2.26x10 ⁶ ACFM	FGD-3
FGD-1	FGD-1	Wet Scrubbing System for Stack1 (105,000 gpm)	1994	2.26x10 ⁶ ACFM	SCR-1
FGD-2	FGD-2	Wet Scrubbing System for Stack2 (105,000 gpm)	1995	2.26x10 ⁶ ACFM	SCR-2
FGD-3	FGD-3	Wet Scrubbing System for Stack3 (105,000 gpm)	1995	2.26x10 ⁶ ACFM	SCR-3
SCR-1	SCR-1	Selective Catalytic Reduction	2003	2.26x10 ⁶ ACFM	N/A
SCR-2	SCR-2	Selective Catalytic Reduction	2003	2.26x10 ⁶ ACFM	N/A
SCR-3	SCR-3	Selective Catalytic Reduction	2003	2.26x10 ⁶ ACFM	N/A

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device
Material Handling Sources					
LRCH	LRCH	Lime Rail Car Unloading Hoppers	1994	380 TPH	6ca, 6cb, 6cc, 6cd
6si, 6sj	6si, 6sj	Lime Unloading Conveyor and Transfer Points	1994	450 TPH	6ca, 6cb, 6cc
8sa, 8sb, 8sg, 8sh	8sa, 8sb, 8sg, 8sh	Lime Transfer and Storage Conveyors with Associated Dribble Conveyors	1994	450 TPH (Trans.) 900 TPH (Stor.)	8c
13	13	Lime Storage Silo	1994	101,788 Tons	9c
14	14	Lime Storage Silo	1994	101,788 Tons	10c
11va, 12va	11va, 12va	Emergency Lime Pneumatic Delivery Conveyor (from trucks)	1994	75 Tons (each)	Full Enclosure
37	37	Emergency Lime Storage Silo	1994	150 Tons	11c
38	38	Emergency Lime Storage Silo	1994	150 Tons	12c
9va, 10va	9va, 10va	Emergency Lime Pneumatic Conveyor (from Emergency Lime to Lime Storage Silos)	1994	627,546 TPY	Full Enclosure
24v, 25v, 26v, 27v	24v, 25v, 26v, 27v	Ball-Mill Delivery Screw Conveyors	1994	30 TPH	Full Enclosure
24s, 25s, 26s, 27s	24s, 25s, 26s, 27s	Ball-Mill Slakers	1994	30 TPH	24c, 25c, 26c, 27c
15va, 16va, 17va	15va, 16va, 17va	Solid Waste Processing Lime Silo (SWPLS) Loading Pneumatic Conveyors from Lime Crushers	1994	25 TPH	Full Enclosure
15vb, 16vb, 17vb	15vb, 16vb, 17vb	Solid Waste Processing Lime Silo (SWPLS) Loading Pneumatic Conveyors from trucks	1994	25 TPH	Full Enclosure
33	33	Solid Waste Processing Lime Silo	1994	388 Tons	15c
34	34	Solid Waste Processing Lime Silo	1994	388 Tons	16c
35	35	Solid Waste Processing Lime Silo	1994	388 Tons	17c
18va, 19va, 20va	18va, 19va, 20va	Solid Waste Processing Fly Ash Silo (SWPFAS) Loading Pneumatic Conveyors from Fly Ash Silos	1994	120 TPH	Full Enclosure
18vb, 19vb, 20vb	18vb, 19vb, 20vb	Solid Waste Processing Fly Ash Silo (SWPFAS) Loading Pneumatic Conveyors from trucks	1994	120 TPH	Full Enclosure
21	21	Solid Waste Processing Fly Ash Silo	1994	10,479 Tons	18c
22	22	Solid Waste Processing Fly Ash Silo	1994	10,479 Tons	19c
23	23	Solid Waste Processing Fly Ash Silo	1994	10,479 Tons	20c
21va, 22va, 23va	21va, 22va, 23va	Solid Waste Processing Fly Ash Screw Conveyors	1994	70 TPH	Full Enclosure

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Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device
21vb, 22vb, 23vb	21vb, 22vb, 23vb	Solid Waste Processing Lime Screw Conveyors	1994	10 TPH	Full Enclosure
21vc, 22vc, 23vc	21vc, 22vc, 23vc	Solid Waste Processing Lime/Fly Ash Screw Conveyors	1994	80 TPH	Full Enclosure
21vd, 22vd, 23vd	21vd, 22vd, 23vd	Solid Waste Processing Lime/Fly Ash Screw Conveyors	1994	80 TPH	Full Enclosure
37v, 38v	37v, 38v	Centrifuge Cake Screw Conveyors	1994	150 TPH	Full Enclosure
21s	21s	Solid Waste Processing Pug Mill	1994	600 TPH	21c
22s	22s	Solid Waste Processing Pug Mill	1994	600 TPH	22c
23s	23s	Solid Waste Processing Pug Mill	1994	600 TPH	23c
RCCD	RCCD	Rail Car Coal Dumpers	1971	1500 TPH	Water Spray
ST-1	ST-1	Coal Stockpile	1971	1,000,000 Tons	Water Spray
ST-2	ST-2	Ash Disposal Areas	1971	64,320,000 Tons	Water Spray
BH Conv	BH Conv	Boiler House Conveyors (S-1a/b, S-2a/b, S-3a/b, C-5a/b, C-6a/b)	1971	1500 TPH	Partial Enclosure
C-12	C-12	Conveyor from Surge Bin to Lowering Well #2	1971	1500 TPH	Partial Enclosure
C-1	C-1	Conveyor from Crusher House to Lowering Well #2	1971	1500 TPH	Partial Enclosure
C-3a/b	C-3a/b	Conveyor From Coal Reclaim to Crusher House Transfer Bin	1971	1500 TPH	Partial Enclosure
C-4a/b	C-4a/b	Conveyor From Crusher House to Boiler House Conveyors	1971	1500 TPH	Partial Enclosure
RC-7	RC-7	Conveyor From Rail Dumper to RC-8	1971	1500 TPH	Partial Enclosure
RC-8	RC-8	Conveyor From RC-7 to Crusher House	1971	1500 TPH	Partial Enclosure
MC-7	MC-7	Conveyor From Mine to Crusher House	1971	1500 TPH	Partial Enclosure
C-2b	C-2b	Conveyor From Chute to Lowering Well #1	1971	800 TPH	Partial Enclosure
C-10	C-10	Internal Crusher House Conveyor to Surge Bin	1971	1500 TPH	Partial Enclosure

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device
C-11	C-11	Internal Crusher House Conveyor from Surge Bin	1979	1500 TPH	Partial Enclosure
CRU-01	CRU-01	Coal Crusher	1971	1500 TPH	Full Enclosure, Water Spray
CRU-02	CRU-02	Coal Crusher	1972	1500 TPH	Full Enclosure, Water Spray
CRU-03	CRU-03	Coal Crusher	1977	1500 TPH	Full Enclosure, Water Spray
UR-1	UR-1	Urea Storage Silos (4)	2003	25 TPH (each)	28c, 29c, 30c, 31c
UR-2	UR-2	Urea Feed Hoppers (2)	2003	16 TPH (each)	32c, 33c
RDRU	EP-1	Rapid Discharge Rail Unloader to Belt Feeder	To be installed	3,000 TPH	Chemical Fogging System (CFS)
BF-01	EP-2	72" Unloading Belt Feeder	To be installed	3,000 TPH	Enclosure/CFS
CV-01	EP-3	54" Load -out Conveyor	To be installed	3,000 TPH	Enclosure/CFS
CV-02	EP-4	60" Conveyor	To be installed	3,000 TPH	Enclosure/CFS
CV-03	EP-5	48" Conveyor (to Transfer Tower)	To be installed	3,000 TPH	Enclosure/CFS
CV-04	EP-6	60" Conveyor to (Stacking Tubes)	To be installed	3,000 TPH	Enclosure/CFS
ST-003	EP-7	Stacking Tube/Coal Pile/ Bulldozing	To be installed	3,000 TPH	None
RC 3100	1E	Pug Mill Mixer	2016	1,500 TPH	FE
RC 3200	2E	S-Sorb Day Bin	2016	15 ton	(1) Bin Vent Filter/FE
RC 3500	3E	MerSorb Storage Tank	2016	6,100 gallons	FE
RC 3700	4E	MerSorb Day Storage Tank	2016	405 gallon	FE
RC 8200	5E	S-Sorb Storage Silo	2016	150 tons	(2) Bin Vent Filter
RC 8300	6E	S-Sorb Storage Silo	2016	150 tons	(2) Bin Vent Filter
PHaul	PHaul	Existing paved facility roadways	N/A	N/A	Water Truck

West Virginia Department of Environmental Protection • Division of Air Quality
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Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device
Control Devices					
6ca, 6cb, 6cc	6ca, 6cb, 6cc	Fabric Filter Baghouse	1994	175,000 CFM	N/A
6cd	6cd	Vacuum System	1994	947 CFM	N/A
8c	8c	Fabric Filter Baghouse	1994	28,000 CFM	N/A
9c	9c	Fabric Filter Baghouse	1994	10,000 CFM	N/A
10c	10c	Fabric Filter Baghouse	1994	10,000 CFM	N/A
11c	11c	Fabric Filter Baghouse	1994	2,100 CFM	N/A
12c	12c	Fabric Filter Baghouse	1994	2,100 CFM	N/A
13c	13c	Fabric Filter Baghouse	1994	600 CFM	N/A
14c	14c	Fabric Filter Baghouse	1994	600 CFM	N/A
15c	15c	Fabric Filter Baghouse	1994	2,700 CFM	N/A
16c	16c	Fabric Filter Baghouse	1994	2,700 CFM	N/A
17c	17c	Fabric Filter Baghouse	1994	2,700 CFM	N/A
18c	18c	Fabric Filter Baghouse	1994	6,400 CFM	N/A
19c	19c	Fabric Filter Baghouse	1994	6,400 CFM	N/A
20c	20c	Fabric Filter Baghouse	1994	6,400 CFM	N/A
21c	21c	Wet Scrubber	1994	2,000 CFM	N/A
22c	22c	Wet Scrubber	1994	2,000 CFM	N/A
23c	23c	Wet Scrubber	1994	2,000 CFM	N/A
24c	24c	Wet Scrubber	1994	1,000 CFM	N/A

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device
25c	25c	Wet Scrubber	1994	1,000 CFM	N/A
26c	26c	Wet Scrubber	1994	1,000 CFM	N/A
27c	27c	Wet Scrubber	1994	1,000 CFM	N/A
28c	28c	Fabric Filter Baghouse	1994	655 CFM	N/A
29c	29c	Fabric Filter Baghouse	1994	655 CFM	N/A
30c	30c	Fabric Filter Baghouse	1994	655 CFM	N/A
31c	31c	Fabric Filter Baghouse	1994	655 CFM	N/A
32c	32c	Fabric Filter Baghouse	1994	655 CFM	N/A
33c	33c	Fabric Filter Baghouse	1994	655 CFM	N/A
34c	34c	Fabric Filter Baghouse	1994	655 CFM	N/A
35c	35c	Fabric Filter Baghouse	1994	655 CFM	N/A
36c	36c	Fabric Filter Baghouse	1994	655 CFM	N/A
Miscellaneous Sources					
COOL-01	Cooling Towers (2)	Natural Draft Cooling Towers (2)	1971	585,000 gpm	N/A
PVR	Paved Roads	Plant Paved Roads	N/A	N/A	N/A
UPVR	Unpaved Roads	Plant Unpaved Roads	N/A	N/A	N/A
U2HN	U2HN	Underground Gasoline Storage Tank	1990	2000 gallons	N/A
WASTE-WATER	Harrison Wastewater Operations	Harrison Wastewater Treatment Operations (Insignificant Activity)	N/A	6,084.55 MMgal/year	N/A
A53HN	A53HN	Dozer Fuel Oil Storage Tank	1990	12,000 gallons	N/A
Insig Tanks	N/A	Insignificant Storage Tanks (Insignificant Activity)	N/A	N/A	N/A

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device
T01	T01	Propane Storage/Feed Tank	2012	1000 gallons	N/A
T02	T02	Propane Storage/Feed Tank	2012	1000 gallons	N/A

(1) [Passive Bin Vent MAC 39AVSC25. Total Area of Filter Media: 900 ft². Filter Efficiency: 99.92%.](#)

(2) [Passive Bin Vent C&W CP-LPR-8-S. Total Filtration Area 356 ft². Number of filter cartridges: 8. Minimum Design Efficiency: 99.99%.](#)

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-1477B	6/3/2003
G60-C049	11/28/12
R13-2988B	11/9/12 8/10/16

2.0 General Conditions

2.1. Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.
- 2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2. Acronyms

CAAA	Clean Air Act Amendments	NO_x	Nitrogen Oxides
CBI	Confidential Business Information	NSPS	New Source Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM₁₀	Particulate Matter less than 10µm in diameter
C.F.R. or CFR	Code of Federal Regulations	pph	Pounds per Hour
CO	Carbon Monoxide	ppm	Parts per Million
C.S.R. or CSR	Codes of State Rules	PSD	Prevention of Significant Deterioration
DAQ	Division of Air Quality	psi	Pounds per Square Inch
DEP	Department of Environmental Protection	SIC	Standard Industrial Classification
FOIA	Freedom of Information Act	SIP	State Implementation Plan
HAP	Hazardous Air Pollutant	SO₂	Sulfur Dioxide
HON	Hazardous Organic NESHAP	TAP	Toxic Air Pollutant
HP	Horsepower	TPY	Tons per Year
lbs/hr or lb/hr	Pounds per Hour	TRS	Total Reduced Sulfur
LDAR	Leak Detection and Repair	TSP	Total Suspended Particulate
m	Thousand	USEPA	United States Environmental Protection Agency
MACT	Maximum Achievable Control Technology	UTM	Universal Transverse Mercator
mm	Million	VEE	Visual Emissions Evaluation
mmBtu/hr	Million British Thermal Units per Hour	VOC	Volatile Organic Compounds
mmft³/hr or mmcf/hr	Million Cubic Feet Burned per Hour		
NA or N/A	Not Applicable		
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Permit Expiration and Renewal

- 2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]
- 2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]
- 2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]
- 2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

- 2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

- 2.5.1. This permit shall be reopened and revised under any of the following circumstances:
 - a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.
 - b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.
 - c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

- d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

- 2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.

[45CSR§30-6.4.]

2.7. Minor Permit Modifications

- 2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.

[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

- 2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.

[45CSR§30-6.5.b.]

2.9. Emissions Trading

- 2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.

[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

- 2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

- a. The change must meet all applicable requirements and may not violate any existing permit term or condition.
- b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.
- c. The change shall not qualify for the permit shield.

- d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.
- f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

- 2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.

[45CSR§30-5.8]

- 2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.

[45CSR§30-5.8.a.]

- 2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

- a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or
- b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

- 2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

- 2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.
- a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.
 - b. The permit shield shall extend to all terms and conditions under each such operating scenario; and
 - c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.
[45CSR§30-5.1.i.]

2.13. Duty to Comply

- 2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

- 2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:
- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
 - d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

- 2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:
- a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
 - b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

- 2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

[45CSR§30-5.1.f.2.]

2.17. Emergency

- 2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

[45CSR§30-5.7.a.]

- 2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.

[45CSR§30-5.7.b.]

- 2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The permitted facility was at the time being properly operated;

- c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

- 2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

[45CSR§30-5.7.d.]

- 2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

- 2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.

[45CSR§30-5.2.a.]

- 2.18.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-enforceable" requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

- 2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

- 2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

[45CSR§30-4.2.]

2.21. Permit Shield

- 2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.

[45CSR§30-5.6.a.]

- 2.21.2. Nothing in this permit shall alter or affect the following:

- a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or
- b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.
- c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

- 2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.

[45CSR§30-5.3.e.3.B. and 45CSR38]

2.23. Severability

- 2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.

[45CSR§30-5.1.e.]

2.24. Property Rights

- 2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.
[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

- 2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.
- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.
 - b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.
 - c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

- 2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.
[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1. [45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible. [45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them. [40 C.F.R. §61.145(b) and 45CSR34]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public. [45CSR§4-3.1 State-Enforceable only.]
- 3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11. [45CSR§11-5.2]
- 3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality. [W.Va. Code § 22-5-4(a)(14)]
- 3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

- 3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.

[40 C.F.R. 68]

- 3.1.9. **Fugitive Particulate Matter Control.** No person shall cause, suffer, allow, or permit any source of fugitive particulate matter to operate that is not equipped with a fugitive particulate matter control system. This system shall be operated and maintained in such a manner as to minimize the emission of fugitive particulate matter. Sources of fugitive particulate matter associated with fuel burning units shall include, but not be limited to, the following:

- a. Stockpiling of ash or fuel either in the open or in enclosures such as silos;
- b. Transport of ash in vehicles or on conveying systems, to include spillage, tracking, or blowing of particulate matter from or by such vehicles or equipment; and
- c. Ash or fuel handling systems and ash disposal areas.

[45CSR§2-5.1.]

- 3.1.10. **CAIR NO_x Annual Trading Program.** The permittee shall comply with the standard requirements set forth in the attached CAIR Permit Application (see Appendix B) and the CAIR permit requirements set forth in 45CSR39 for each CAIR NO_x Annual source. The complete CAIR Permit Application shall be the CAIR Permit portion of the Title V permit administered in accordance with 45CSR30.

[45CSR§§39-6.1.b. and 20.1.]

- a. The CAIR Permit portion of this permit is deemed to incorporate automatically the definitions of terms under 45CSR§39-2 and, upon recordation by the Administrator under sections 51 through 57, or 60 through 62 of 45CSR39, every allocation, transfer, or deduction of a CAIR NO_x Annual allowance to or from the compliance account of the CAIR NO_x Annual source covered by the permit.

[45CSR§39-23.2.]

- b. Except as provided in 45CSR§39-23.2, the Secretary will revise the CAIR Permit portion of this permit, as necessary, in accordance with the operating permit revision requirements set forth in 45CSR30.

[45CSR§39-24.1.]

- 3.1.11. **CAIR NO_x Ozone Season Trading Program.** The permittee shall comply with the standard requirements set forth in the attached CAIR Permit Application (see Appendix B) and the CAIR permit requirements set forth in 45CSR40 for each CAIR NO_x Ozone Season source. The complete CAIR Permit Application shall be the CAIR Permit portion of the Title V permit administered in accordance with 45CSR30.

[45CSR§§40-6.1.b. and 20.1.]

- a. The CAIR Permit portion of this permit is deemed to incorporate automatically the definitions of terms under 45CSR§40-2 and, upon recordation by the Administrator under sections 51 through 57, or 60 through 62 of 45CSR40, every allocation, transfer, or deduction of a CAIR NO_x Ozone Season allowance to or from the compliance account of the CAIR NO_x Ozone Season source covered by the permit.

[45CSR§40-23.2.]

- b. Except as provided in 45CSR§40-23.2, the Secretary will revise the CAIR Permit portion of this permit, as necessary, in accordance with the operating permit revision requirements set forth in 45CSR30.
[45CSR§40-24.1.]

- 3.1.12. **CAIR SO₂ Trading Program.** The permittee shall comply with the standard requirements set forth in the attached CAIR Permit Application (see Appendix B) and the CAIR permit requirements set forth in 45CSR41 for each CAIR SO₂ source. The complete CAIR Permit Application shall be the CAIR Permit portion of the Title V permit administered in accordance with 45CSR30.
[45CSR§§41-6.1.b. and 20.1.]

- a. The CAIR Permit portion of this permit is deemed to incorporate automatically the definitions of terms under 45CSR§41-2 and, upon recordation by the Administrator under sections 51 through 57, or 60 through 62 of 45CSR41, every allocation, transfer, or deduction of a CAIR SO₂ allowance to or from the compliance account of the CAIR SO₂ source covered by the permit.
[45CSR§41-23.2.]
- b. Except as provided in 45CSR§41-23.2, the Secretary will revise the CAIR Permit portion of this permit, as necessary, in accordance with the operating permit revision requirements set forth in 45CSR30.
[45CSR§41-24.1.]

3.2. Monitoring Requirements

- 3.2.1. N/A

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:
 - a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
 - b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.

- c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.
- d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
 1. The permit or rule evaluated, with the citation number and language.
 2. The result of the test for each permit or rule condition.
 3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code §§ 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:
 - a. The date, place as defined in this permit and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of the analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A.; 45CSR13, R13-2988 (Condition 4.3.1)]

- 3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required

by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.

[45CSR§30-5.1.c.2.B.]

3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.

[45CSR§30-5.1.c. State-Enforceable only.]

3.4.4. The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility. The permittee shall also inspect all fugitive dust control systems weekly from May 1 through September 30 and monthly from October 1 through April 30 to ensure that they are operated and maintained in conformance with their designs. The permittee shall maintain records of all scheduled and non-scheduled maintenance and shall state any maintenance or corrective actions taken as a result of the weekly and/or monthly inspections, the times the fugitive dust control system(s) were inoperable and any corrective actions taken.

[45CSR§30-5.1.c.]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

[45CSR§§30-4.4. and 5.1.c.3.D.]

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

[45CSR§30-5.1.c.3.E.]

3.5.3. Except for the electronic submittal of the annual certification to the USEPA as required in 3.5.5 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:

Associate Director
Office of Air Enforcement and Compliance
Assistance (3AP20)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

- 3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
[45CSR§30-8.]
- 3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
[45CSR§30-5.3.e.]
- 3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4.
[45CSR§30-5.1.c.3.A.]
- 3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.
- 3.5.8. **Deviations.**
- a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:
1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
 2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
 3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
 4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.
[45CSR§30-5.1.c.3.C.]

- b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.

[45CSR§30-5.1.c.3.B.]

- 3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.

[45CSR§30-4.3.h.1.B.]

3.6. Compliance Plan

- 3.6.1. N/A

3.7. Permit Shield

- 3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

- 3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

45CSR27: *To prevent and control the emissions of Toxic Air Pollutants.* Although this facility has emissions of Toxic Air Pollutants in excess of the thresholds listed in 45CSR27 Table A, it does not meet the definition of a Chemical Processing Unit. There is not an assembly of reactors, tanks, distillation columns, heat exchangers, vaporizers, compressors, dryers, decanters, and/or other equipment used to treat, store, manufacture, or use toxic air pollutants. Therefore the facility is not subject to the requirements of Rule 27.

40 C.F.R. 60, Subpart K & Ka: All tanks are below 40,000 gallons in capacity.

40 C.F.R. 60, Subpart Kb: All new tanks constructed after July 23, 1984 are less than the capacity threshold of 19,813 gallons and/or have a vapor pressure less than 2.2 psi.

40 C.F.R. 60, Subpart D: Harrison Power Station boilers (B1, B2, & B3) were constructed prior to August 17, 1971.

40 C.F.R. 60, Subpart Da: Harrison Power Station boilers (B1, B2, & B3) were constructed before September 18, 1978.

40 C.F.R. 60, Subpart Db: Harrison Power Station Auxiliary boilers (A, B) were constructed prior to June 19, 1984.

40 C.F.R. 60, Subpart OOO: The definition of limestone states that it is a sedimentary rock consisting of at least 80% calcium or magnesium carbonates. Lime is defined as

calcium oxide, which can be produced by subjecting calcium carbonate to high temperature baking in kilns to drive off carbon dioxide. Therefore, lime is not equivalent to limestone and the Harrison lime handling operation is not subject to Subpart OOO.

40 C.F.R. 63, Subpart Q:

The existing Cooling Towers will not use any chromium based water treatment chemicals and therefore, are exempt from the referenced regulation.

45CSR5:

The Rule to Prevent and Control Air Pollution from the Operation of Coal Preparation Plants, Coal Handling Operations, and Coal Disposal Areas is not applicable to the facility since 45CSR2 applies.

45CSR17:

The Rule to Prevent and Control Particulate Matter Air Pollution from Material Handling Preparation, Storage, and Other Sources of Fugitive Particulate Matter is not applicable to the facility because 45CSR2 is applicable

4.0 Source-Specific Requirements [Boiler #1 (Stack1), Boiler #2 (Stack2), Boiler #3 (Stack3), Auxiliary Boiler 1A (Aux Boiler Stack 1A), Auxiliary Boiler PB (Aux Boiler Stack PB)]

4.0.1 Emergency Operating Scenarios

In the event of an unavoidable shortage of fuel having characteristics or specifications necessary to comply with the visible emission standard set forth in permit condition 4.1.1. of this permit, or any emergency situation or condition creating a threat to public safety or welfare, the Secretary may grant an exemption to the otherwise applicable visible emission standards for a period not to exceed fifteen (15) days, provided that visible emissions during that period do not exceed a maximum six (6) minute average of thirty (30) percent and that a reasonable demonstration is made by the owner or operator that the weight emission standards under permit Condition 4.1.3 of this permit, will not be exceeded during the exemption period.

[45CSR§2-10.1.]

4.1. Limitations and Standards

Particulate Matter

4.1.1. Emissions of smoke and/or particulate matter from each stack shall not exceed ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1.]

4.1.2. Compliance with the visible emission requirements of 45CSR§2-3.1 (Condition 4.1.1 of this permit) shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 and as described in the approved monitoring plan. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.

Method 9 testing for the Boilers *Aux Boiler Stack 1A* and *Aux Boiler Stack PB* shall not be required if the Permittee does not burn oil in these Boilers during the calendar month. However, the permittee must keep records of hours of operation of the boilers as well as records of fuel usage for these boilers during months that oil is not burned as fuel.

[45CSR§§2-3.2 and 8.4.b, 45CSR§2A-6, 45CSR§2-8.3.c.]

4.1.3. Particulate matter emissions from each stack (Stack1, Stack2, and Stack3) shall not exceed 316.25 lb/hr.
[45CSR§2-4.1.a.]

4.1.4. Particulate matter emissions from each auxiliary boiler stack (Aux Boiler Stack 1A, Aux Boiler Stack PB) shall not exceed 36.40 lb/hr.
[45CSR§2-4.1.b.]

4.1.5. The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment is prohibited unless written approval for such addition is provided by the Secretary.
[45CSR§2-4.4.]

4.1.6. Compliance with the visible emission limit shall be demonstrated by periodic testing in accordance with 40 CFR Part 60, Appendix A, Method 9, or a certified continuous opacity monitoring system, as approved by the Secretary. Compliance with the weight emission limit shall be demonstrated by periodic particulate matter stack testing, conducted in accordance with the appropriate test method set forth in the Appendix to 45CSR2 or other

equivalent EPA approved method approved by the Secretary. Such testing shall be conducted at a frequency to be established by the Secretary.

[45CSR§2-8.1.a.]

Note : An alternative monitoring method has been granted in the attached approved Monitoring Plan.

4.1.7. Compliance with the visible emissions limit shall be monitored as set forth in the approved monitoring plan (attached in Appendix A) for each emission unit.

[45CSR§2-8.2.a.]

4.1.8. Records of monitored data established in the monitoring plan shall be maintained on site and shall be made available to the Secretary or his duly authorized representative upon request.

[45CSR§2-8.3.a.]

4.1.9. A periodic exception report shall be submitted to the Secretary, in a manner and at a frequency to be established by the Secretary. Such exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan, and shall include, but not be limited to, the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion and the corrective action taken.

[45CSR§2-8.3.b, 45CSR2A]

4.1.10. Records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit, shall be maintained on-site in a manner to be established by the Secretary and made available to the Secretary or his duly authorized representative upon request.

[45CSR§2-8.3.c.]

4.1.11. The visible emission standards of condition 4.1.1 shall apply at all times except in periods of start-ups, shutdowns and malfunctions.

[45CSR§2-9.1.]

4.1.12. Any fuel burning unit(s) including associated air pollution control equipment, shall at all times, including periods of start-up, shutdowns, and malfunctions, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions.

[45CSR§2-9.2, 45CSR16]

4.1.13. Unit B1, Unit B2, and Unit B3 shall not be operated without a flue gas desulfurization system (scrubber).

[45CSR§30-12.7]

Nitrogen Oxides (NO₂)

4.1.14. Nitrogen oxides emissions from *Stack1*, *Stack2* & *Stack3* shall not exceed NO_x limits specified in the Acid Rain Permit (Appendix D).

[45CSR33]

Sulfur Dioxide (SO₂)

4.1.15. Sulfur dioxide emissions from each stack (*Stack1*, *Stack2* & *Stack3*) shall not exceed 32,384 lb/hr.

[45CSR§10-3.3.a.]

- 4.1.16. Sulfur dioxide emissions from each auxiliary stack (*Aux Boiler Stack 1A* and *Aux Boiler Stack PB*) shall not exceed 1,294.08 lb/hr.
[45CSR§10-3.3.f.]
- 4.1.17. Compliance with the allowable sulfur dioxide emission limitations from fuel burning units shall be based on a continuous twenty-four (24) hour averaging time. Emissions shall not be allowed to exceed the weight emissions standards for sulfur dioxide as set forth in 45CSR10, except during one (1) continuous twenty-four (24) hour period in each calendar month. During this one (1) continuous twenty-four hour period, emissions shall not be allowed to exceed such weight emission standards by more than ten percent (10%) without causing a violation of 45CSR10. A continuous twenty-four (24) hour period is defined as one (1) calendar day.
[45CSR§10-3.8.] (*Stack1, Stack2 & Stack3*)

Acid Rain Program

- 4.1.18. Unit B1, Unit B2, and Unit B3 are Phase II Acid Rain affected units under 45CSR33, as defined by 40 C.F.R § 72.6, and as such are required to meet the requirements of 40 CFR §§ 72, 73, 74, 75, 76, 77 and 78. These requirements include, but are not limited to:
- Hold an Acid Rain permit (Acid Rain Permit is included in Appendix D);
 - Hold allowances, as of the allowance transfer deadline, in the unit's compliance sub-account of not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit;
 - Comply with the applicable Acid Rain emissions for sulfur dioxide;
 - Comply with the applicable Acid Rain emissions for nitrogen oxides;
 - Comply with the monitoring requirements of 40 CFR 75 and section 407 of the Clean Air Act of 1990 and regulations implementing section 407 of the Act;
 - Submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 72, Subpart I and 40 CFR 75.

[45CSR33, 40CFR Parts 72, 73, 74, 75, 76, 77, 78.]

- 4.1.19 **Electric Utility Steam Generating Units (EGU) MACT, 40 CFR 63, Subpart UUUUU:**
- The coal-fired Electric Utility Steam Generating Units B1, B2, and B3 shall comply with all applicable requirements for existing affected sources, pursuant to 40 CFR 63, Subpart UUUUU "National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units" no later than April 16, 2016, in accordance with the one-year compliance extension approved by WV DEP via letter dated December 28, 2012 to Mr. Ray Evans, or as amended by US EPA.
 - If required to conduct an initial compliance demonstration by performance testing as specified in §63.10011(a), you must submit a Notification of Compliance Status (NOCS) report according to §63.9(h)(2)(ii). The NOCS report must contain all of the information specified in §63.10030(e)(1)-(7), as applicable. If required to submit a Notification of Compliance Status pursuant to 40 CFR 63, Subpart UUUUU, the permittee shall also submit a complete application for significant modification to the Title V permit to incorporate the specific requirements of the rule no later than the maximum time allowed for the NOCS submittal in 40 CFR §63.10030(e). If requested, this Title V permitting deadline may be changed upon written approval by the Director. The permittee shall request the change in writing at least 30 days prior to the application due date.

[45CSR34; 40CFR63 Subpart UUUUU; 45CSR§30-6.5.b]

4.1.20 **Industrial, Commercial, and Institutional Boilers and Process Heaters MACT, 40 CFR 63, Subpart DDDDD:**

- a. The oil/natural gas fired auxiliary boilers (*Boiler 1A and AuxBlr PB*), shall comply with all applicable requirements for existing affected sources pursuant to 40 CFR 63, Subpart DDDDD, "National Emission Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters no later than the existing source compliance date of January 31, 2016.
[45CSR34; 40 CFR §63.7495(b).]
- b. If required to submit a Notification of Compliance Status (NOCS) pursuant to 40 CFR 63, Subpart DDDDD, the permittee shall also submit a complete application for significant modification to the Title V permit to incorporate the specific requirements of the rule no later than the maximum time allowed for the NOCS submittal in 40 CFR §63.7545(e).

If requested, this Title V permitting deadline may be changed upon written approval by the Director. The permittee shall request the change in writing at least 30 days prior to the application due date.

[45CSR34; 40 CFR §63.7545(e); 45CSR§30-6.5.b.]

4.2. Monitoring Requirements

- 4.2.1. Compliance with the visible emission requirements for *Stack1, Stack2 & Stack3, Aux Boiler Stack 1A, and Aux Boiler Stack PB* shall be determined as outlined in section I.A. of the *Revision 3* "Monitoring and Recordkeeping Plan 45CSR2 and 45CSR10" which is attached in Appendix A of this permit.

Method 9 testing for *Aux Boiler Stack 1A* and *Aux Boiler Stack PB* shall not be required if the Permittee does not burn oil in these Boilers during the calendar month. However, the permittee must keep records of hours of operation of the boilers as well as records of fuel usage fuel for these boilers during months that oil is not burned as fuel.

[45CSR§§2-3.2, 8.2, and 8.4.b.]

- 4.2.2. The Electrostatic Precipitator (ESP) secondary voltage and secondary current shall be measured continuously using a voltmeter and ammeter integrated into the ESP Unit, and both shall be recorded no less than four times per hour, equally spaced over each hour. The total power (P) input to the ESP is the sum of the products of secondary voltage (V) and current (I) in each field and shall be calculated and recorded in accordance with Condition 4.4.3 of this permit. An excursion shall be defined as 3-hour block average ESP power levels below the following: Unit 1 = 127 kW, Unit 2 = 118 kW, Unit 3 = 104 kW.

[45CSR§30-5.1.c., 40 C.F.R. § 64.3(b)(1), 40 C.F.R. § 64.3(b)(4)(ii), and 40 C.F.R. §64.6(c)]

- 4.2.3. The permittee shall calibrate, maintain, and operate the instrumentation used to measure the secondary voltage and secondary current in Condition 4.2.2 of this permit in accordance with manufacturer's specifications.

[45CSR§30-5.1.c. and 40 C.F.R. § 64.3(b)(3)]

- 4.2.4. The owner or operator shall install, calibrate, certify, operate, and maintain continuous monitoring systems that measure all SO₂, NO_x, and CO₂ emissions from each stack liner, *Stack1, Stack2, and Stack3* as specified in 40 C.F.R. Part 60, Subpart D and in 40 C.F.R. Part 75.

[45CSR16, 45CSR33, 40 C.F.R. § 75.10, 40 C.F.R. § 60.45]

- 4.2.5. Compliance with the allowable sulfur dioxide emission limitations from fuel burning units shall be based on a continuous twenty-four (24) hour averaging time. Emissions shall not be allowed to exceed the weight emissions standards for sulfur dioxide as set forth in Condition 4.1.15 and 4.1.16 of this permit, except during one (1) continuous twenty-four (24) hour period in each calendar month. During this one (1) continuous twenty-four hour period, emissions shall not be allowed to exceed such weight emission standards by more than ten percent (10%) without causing a violation of 45CSR10. A continuous twenty-four (24) hour period is defined as one (1) calendar day.
[45CSR§10-3.8.]
- 4.2.6. *Proper maintenance.* At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
[40 C.F.R. § 64.7(b) and 45CSR§30-5.1.c]
- 4.2.7. *Continued operation.* Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
[40 C.F.R. § 64.7(c) and 45CSR§30-5.1.c]
- 4.2.8. *Response to excursions or exceedances.*
- (1) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
 - (2) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
[40 C.F.R. § 64.7(d) and 45CSR§30-5.1.c]
- 4.2.9. *Documentation of need for improved monitoring.* After approval of monitoring under this part, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 permit to address the necessary monitoring

changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[40 C.F.R. § 64.7(e) and 45CSR§30-5.1.c]

4.2.10. The permittee is subject to the quality improvement plan (QIP) requirements of 40 C.F.R. §64.8.

[40 C.F.R. §64.8 and 45CSR§30-5.1.c]

4.3. Testing Requirements

4.3.1. The owner or operator shall conduct, or have conducted, tests to determine the compliance of Unit B1, Unit B2 and Unit B3 with the particulate matter weight emission standards (in lbs/hr). Such tests shall be conducted in accordance with the appropriate method set forth in 45CSR2 Appendix - Compliance Test Procedures for 45CSR2 or other equivalent EPA approved method approved by the Secretary. Such tests shall be conducted in accordance with the schedule set forth in the following table.

Test	Test Results	Testing Frequency
Annual	after three successive tests indicate mass emission rates $\leq 50\%$ of weight emission standard	Once/3 years
Annual	after two successive tests indicate mass emission rates $< 80\%$ of weight emission standard	Once/2 years
Annual	any tests indicates a mass emission rate $\geq 80\%$ of weight emission standard	Annual
Once/2 years	after two successive tests indicate mass emission rates $\leq 50\%$ of weight emission standard	Once/3 years
Once/2 years	any tests indicates a mass emission rate $< 80\%$ of weight emission standard	Once/2 years
Once/2 years	any tests indicates a mass emission rate $\geq 80\%$ of weight emission standard	Annual
Once/3 years	any tests indicates a mass emission rate $\leq 50\%$ of weight emission standard	Once/3 years
Once/3 years	any test indicates mass emission rates between 50% and 80 % of weight emission standard	Once/2 years
Once/3 years	any test indicates a mass emission rate $\geq 80\%$ of weight emission standard	Annual

[45CSR§2-8.1., 45CSR§2A-5.2.]

4.4. Recordkeeping Requirements

4.4.1. The owner or operator of a fuel burning unit(s) shall maintain on-site all records of monitored data established in the monitoring plan pursuant to Condition 4.2.1 of this permit. Such records shall be made available to the

Director or his duly authorized representative upon request. Such records shall be retained on-site for a minimum of five years.

[45CSR§2-8.3.a.]

- 4.4.2. The owner or operator shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit as outlined in “45CSR2 Monitoring Plan” attached as Appendix A of this permit. Such records are to be maintained on-site and made available to the Director or his duly authorized representative upon request.

[45CSR§2-8.3.c.]

- 4.4.3. The total secondary Electrostatic Precipitator power input (in kW) shall be calculated and recorded no less than four times per hour, equally spaced over each hour, in an electronic data acquisition system and averaged on a 3 hour block basis.

[45CSR§30-5.1.c. and 40 C.F.R. 64.9(b)]

- 4.4.4 *General recordkeeping requirements.*

(1) The owner or operator shall comply with the recordkeeping requirements specified in §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 C.F.R. §64.9(b)]

4.5. Reporting Requirements

- 4.5.1. The designated representative shall electronically report SO₂, NO_x, and CO₂ emissions data and information as specified in 40 C.F.R. § 75.64 to the Administrator of USEPA, quarterly. Each electronic report must be submitted within thirty (30) days following the end of each calendar quarter.

[45CSR33, 40 C.F.R. § 75.64]

- 4.5.2. Compliance with the periodic exception reporting of permit condition 4.1.9 shall be demonstrated as outlined in “45CSR2 Monitoring Plan” attached as Appendix A of this permit.

[45CSR§2-8.3.b.]

- 4.5.3. The owner or operator of a fuel burning unit(s) subject to this rule shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in section 45CSR§2-3 and 45CSR§2-4) as provided in one of the following subdivisions:

- 4.5.3.1. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:

The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and

Excess opacity does not exceed 40%.

- 4.5.3.2. The owner or operator shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in subdivision 45CSR§2-9.3.a (Section 4.5.3.1 of this permit), by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. The owner or operator shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:

A detailed explanation of the factors involved or causes of the malfunction;

The date and time of duration (with starting and ending times) of the period of excess emissions;
An estimate of the mass of excess emissions discharged during the malfunction period;

The maximum opacity measured or observed during the malfunction;

Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and

A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45CSR§2-9.3.]

4.5.4 *General reporting requirements.*

- a. On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii).
- b. A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) and the following information, as applicable:
 - i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a) and 45CSR§30-5.1.c]

4.6. Compliance Plan

N/A

5.0 Source-Specific Requirements [Lime Handling Facilities]

5.1. Limitations and Standards

5.1.1. In accordance with the information filed in Permit Application R13-1477A, R13-1477B and any amendments thereto, the maximum throughputs in Section 1.0 shall not be exceeded, and, at a minimum, the control equipment specified in Section 1.0 shall be installed, maintained, and operated so as to minimize particulate matter emissions.

[45CSR13, R13-1477 (Condition A.1.)]

5.1.2. In accordance with the information filed in Permit Application R13-1477A, R13-1477B, and any amendments thereto, particulate matter (PM) emissions from the following emission points shall not exceed the following limitations and the maximum exit gas flows from the associated control devices shall not be exceeded:

Control Device Identification Number	Control Device Type	Emission Point Identification Number	gr/acf ⁽¹⁾	Maximum Air Flow (acfm) ⁽²⁾
6ca,6cb,6cd	Baghouses	6e ⁽³⁾	0.009	175000
8c	Baghouse	8e	0.003	28000
9c	Baghouse	9e	0.003	10000
10c	Baghouse	10e	0.003	10000
11c	Baghouse	11e	0.003	2100
12c	Baghouse	12e	0.003	2100
13c	Baghouse	13e	0.003	600
14c	Baghouse	14e	0.003	600
15c	Baghouse	15e	0.003	2700
16c	Baghouse	16e	0.003	2700
17c	Baghouse	17e	0.003	2700
18c	Baghouse	18e	0.003	6400
19c	Baghouse	19e	0.003	6400
20c	Baghouse	20e	0.003	6400
21c	Wet Collector	21e	0.030	2000
22c	Wet Collector	22e	0.030	2000
23c	Wet Collector	23e	0.030	2000
24c	Wet Collector	24e	0.009	1000
25c	Wet Collector	25e	0.009	1000
26c	Wet Collector	26e	0.009	1000
27c	Wet Collector	27e	0.009	1000
28c	Baghouse	28e	0.015	335

- (1) gr/acf = grains per actual cubic foot of exit gas. These limits are considered instantaneous limits.
- (2) Compliance with the maximum air flow will be based on the maximum rated capacity of all blowers feeding the emission point.
- (3) The emission limit listed is the aggregate limit for the emission point. It is not the limit for each individual baghouse but rather the aggregate limit for all three.

[45CSR13, R13-1477 (Condition A.2.)]

5.1.3. In accordance with the information filed in Permit Application R13-1477A, R13-1477B, and any amendments thereto, the following materials and hours of operation shall be limited to the quantities as specified below. All annual limits are calculated using a rolling yearly total. A rolling yearly total shall mean the sum of the material throughput at any given time for the previous twelve (12) months.

- a. The input of lime into the lime handling system shall not exceed 627,546 TPY.
- b. The combined amount of bottom ash transported to the landfill area (and then possibly sized and sent offsite) and the bottom ash transported directly offsite shall not exceed 192,000 TPY.
- c. The amount of fly ash, as generated by the Harrison Power Station, to be transported to the landfill (FA_{LF}) shall not exceed the amount as calculated in the following equation:

$$FA_{LF} \text{ (TPY)} = 256,000 + ((250,000 - FA_{OS}) * 0.48)$$

Where,

FA_{OS} = Amount of Fly-Ash disposed of from off-site sources.

The maximum amount of fly ash to be disposed of in the landfill shall not exceed 376,000 TPY from the Harrison Power Station and 506,000 TPY total from both Harrison Power Station and offsite sources.

- d. The amount of flue gas desulfurization (FGD) sludge to be disposed of either in the landfill or offsite shall not exceed 3,000,000 TPY.
- e. Landfill fly ash surface bulldozing shall be limited to 160 hours per year.
- f. Lime unloading operations shall be limited to 2,920 hours per year.

[45CSR13, R13-1477 (Condition A.3)]

5.1.4. Fugitive dust control measures for haulroads shall be utilized and maintained in such a manner as to minimize dust generation and atmospheric entrainment. Those measures shall include a continuous program of watering haulroad(s) and by wet-vacuum sweeping of paved haulroads at all times haulage trucks are in operation unless such haulroads are adequately wetted by natural rainfall.

- a. Water truck to be utilized shall be equipped with manufactured-type spray nozzles which are pressurized per manufacturer's recommended guidelines for controlling fugitive dust emissions.
- b. Vacuum sweeper shall be of the type that utilizes wet vacuuming and filtration prior to exhausting air.
- a. A maximum speed limit of 15 miles per hour shall be maintained on all unpaved roads. A clear and visible sign shall be posted at the beginning of all unpaved roads clearly displaying this speed limit.

[45CSR13, R13-1477 (Condition A.4)]

5.1.5. Stabilized sludge shall be maintained at a minimum of 30% moisture, by weight, prior to final deposition at any landfill.

[45CSR13, R13-1477 (Condition A.5)]

- 5.1.6. The operation of this facility is subject to requirements of 45CSR7. Pertinent sections applying to this operation include, but are not limited to:

§45-7-3.1

No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 45CSR§§7-3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.

§45-7-3.2

The provisions of 45CSR§7-3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.

§45-7-3.7

No person shall cause, suffer, allow, or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 45CSR§7-5.1 is required to have a full enclosure and be equipped with a particulate matter control device.

§45-7-4.1

No person shall cause, suffer, allow, or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7A.

§45-7-5.1

No person shall cause, suffer, allow, or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.

§45-7-5.2

The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment.

[45CSR13, R13-1477 (Condition B.2.)]

5.2. Monitoring Requirements

- 5.2.1. Tests that are required by the Director to determine compliance with the emission limitations set forth in Condition 5.1.2 of this permit shall be conducted in accordance with the methods as set forth below. The Director may require a different test method or approve an alternative method in light of any new technology advancements that may occur. Compliance testing shall be conducted at the maximum permitted operating conditions unless otherwise specified by the Director.

a. Tests to determine compliance with PM emission limits shall be conducted in accordance with 45CSR7A. **[45CSR13, R13-1477 (Condition B.5.)]**

- 5.2.2. With regard to any testing required by the Director, the permittee shall submit to the Director of Air Quality a test protocol detailing the proposed test methods, the date, and the time the proposed testing is to take place, as well as identifying the sampling locations and other relevant information. The test protocol must be received by the Director no less than thirty (30) days prior to the date the testing is to take place. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place.

[45CSR13, R13-1477 (Condition B.6)]

- 5.2.3 a. Each emissions unit with a visible emissions limit contained in this permit section shall be observed visually by a trained Method 22 observer at least each calendar week during periods of facility operation for a sufficient time interval to determine if the unit has any visible emissions. If visible emissions from any of the emissions units are observed during these weekly observations, or at any other time, that appear to exceed 50 percent of the allowable visible emission requirement for the emission unit, visible emissions evaluations in accordance with 40 CFR Part 60 Appendix A, Method 9 shall be conducted as soon as practicable, but no later than one (1) month from the time of the observation. A Method 9 evaluation shall not be required under this permit condition (5.2.3.a.) if the visible emissions condition is corrected in a timely manner; the emissions unit is operating at normal operating conditions; and, the cause and corrective measures taken are recorded.
- b. If the visible emissions evaluation indicates visible emissions in excess of 50 percent of the allowable visible emissions requirement for a given emission unit, a visible emissions evaluation shall be performed for that unit at least once every consecutive 14-day period in accordance with 40 CFR Part 60 Appendix A, Method 9. If subsequent visible emissions evaluations indicate visible emissions less than or equal to 50 percent of the allowable visible emissions requirement for the emission unit for 3 consecutive evaluation periods, the emission unit may comply with the visible emissions testing requirements of permit condition 5.2.3.a. above, in lieu of those established in this condition.

[45CSR§30-5.1.c.]

5.3. Testing Requirements

N/A

5.4. Recordkeeping Requirements

- 5.4.1. A record of each visible emissions observation shall be maintained on site, including any data required by 40 C.F.R. Part 60 Appendix A, Method 9. The record shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. Records shall state any maintenance or corrective actions taken as a result of the weekly inspections, and the times the fugitive dust control system(s) are inoperable and any corrective actions taken.

[45CSR§30-5.1.c.]

- 5.4.2. For the purposes of determining compliance with maximum throughput limits set forth in Condition 5.1.3, the applicant shall maintain monthly records of the throughputs of the specified materials and the hours of operation. For the purposes of determining compliance with the water truck requirement in Condition 5.1.4, the applicant shall maintain a certified daily and monthly record of water truck usage. Such records shall be retained by the permittee for at least five (5) years. Certified records shall be made available to the Director or his/her duly authorized representative upon request.

[45CSR13, R13-1477, (Condition B.7.)]

5.5. Reporting Requirements

N/A

5.6. Compliance Plan

N/A

6.0 Source-Specific Requirements [Crusher CRU-03 and Conveyor C-11]

6.1 Limitations and Standards

- 6.1.1. Emission Units CRU-03 and C-11 shall not discharge into the atmosphere gases which exhibit 20 percent opacity or greater.
[40 C.F.R. § 60.254(a)]

6.2. Monitoring Requirements

- 6.2.1. Emission Units CRU-03 and C-11 shall be observed visually at least each calendar month during periods of facility operation for a sufficient time interval to determine if the unit has any visible emissions using 40 C.F.R. 60 Appendix A, Method 22. If visible emissions are observed during these monthly observations, or at any other time, that appear to exceed the allowable visible emission requirement in Condition 6.1.1, visible emissions evaluations in accordance with 40 C.F.R. Appendix A, Method 9 shall be conducted as soon as practicable, but no later than one month from the time of the observation. A visible emissions evaluations in accordance with 40 C.F.R. Appendix A, Method 9 shall not be required under Condition 6.2.1 if the visible emissions condition is corrected in a timely manner; the emission unit CRU-03 is operating at normal operation conditions; and, the cause and corrective measures taken are recorded.
[45CSR§30-5.1c]

6.3. Testing Requirements

N/A

6.4. Recordkeeping Requirements

- 6.4.1. The Permittee shall retain records of all required monitoring data and support information.
[45CSR§30-5.1c.]

6.5. Reporting Requirements

N/A

6.6. Compliance Plan

N/A

7.0. Source-Specific Requirements [Emergency Diesel Generators]

7.1 Limitations and Standards

7.1.1 Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 C.F.R. §§63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in 40 C.F.R. §63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR §80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

[45CSR34; 40 C.F.R. §63.6604(b)](EDG1, EDG2 and EDG3)

7.1.2 If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

- (1) There is no time limit on the use of emergency stationary RICE in emergency situations.
- (2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
 - (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
 - (ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
 - (iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- (3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. The 50 hours per year for non-emergency

situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[45CSR34; 40 C.F.R. §§63.6640(f) (1) through (3)] (EDG1, EDG2 and EDG3)

- 7.1.3 For the existing emergency stationary CI RICE \leq 500hp located at a major source of HAP emissions, the permittee shall comply with the following requirements from Table 2c of 40 C.F.R. 63 Subpart ZZZZ.
- a. Change oil and filter every 500 hours of operation or annually, whichever comes first.
 - b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
 - c. Insect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
 - d. Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

[45CSR34; 40 C.F.R. §63.6602; Table 2c of 40 C.F.R. 63 Subpart ZZZZ] (EDG3)

- 7.1.4 The permittee must demonstrate continuous compliance with each emission limitation or operating limitation in Table 2c of 40 C.F.R. 63 Subpart ZZZZ that apply according to the following methods from Table 6 of 40 C.F.R. 63 Subpart ZZZZ.
- a. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
 - b. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[45CSR34; 40 C.F.R. §63.6640(a), Table 6 of 40 C.F.R. 63 Subpart ZZZZ] (EDG3)

- 7.1.5 The permittee must comply with the general compliance requirements of 40 C.F.R. §63.6605.
[45CSR34; 40 C.F.R. §63.6605] (EDG1, EDG2 and EDG3)
- 7.1.6 The permittee must comply with the general provisions of 40 C.F.R. 63 as shown in Table 8 of 40 C.F.R. 63 Subpart ZZZZ except for the following which do not apply as per 40 C.F.R. §63.6645(a)(5): 40 C.F.R. §§ 63.7(b) and (c), 40 C.F.R. §§ 63.8(e), (f)(4), and (f)(6), and 40 C.F.R. §§ 63.9(b)-(e), (g) and (h).
[45CSR34; 40 C.F.R. §63.6665, 40 C.F.R. §63.6645(a)(5), Table 8 of 40 C.F.R. 63 Subpart ZZZZ] (EDG3)

- 7.1.7 **Regulated Pollutant Limitation.** The registrant shall not cause, suffer, allow or permit emissions of VOC, NO_x, and CO, from any registered reciprocating internal combustion engine to exceed the potential to emit (pounds per hour and tons per year) listed in the General Permit Registration:

Emission Unit	Pollutant	Maximum Hourly Emissions (lb/hr)	⁽¹⁾ Maximum Annual Emissions (tpy)
EG-1 Kohler 100 REZGD, Lean Burn Four Stroke, Liquid Propane Gas (145 HP; 108.2 kW)	Nitrogen Oxides (NO _x)	0.32	0.10
	Carbon Monoxide (CO)	1.41	0.40
	Volatile Organic Compounds (VOC)	0.23	0.10

¹Based on operating the engine 500 hours per year.

[45CSR13, G60-C049 General Permit Registration, Emission Limitations; and G60-C, condition 5.1.2.] (EG-1)

- 7.1.8 The engine is registered under Class II General Permit G60-C (Appendix C) and is subject to Sections 1.0, 2.0, 3.0, and 4.0 of the General Permit.

The following sections of Class II General Permit G60-C (Appendix C) apply to the registrant:

Section 5 Reciprocating Internal Combustion Engines (R.I.C.E.)

Section 8 Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40 C.F.R. 60 Subpart JJJJ)

[45CSR13, G60-C049 General Permit Registration] (EG-1)

7.2 Monitoring Requirements

- 7.2.1 The permittee must comply with the following applicable monitoring requirements of 40 C.F.R. 63 Subpart ZZZZ: 40 C.F.R. §§ 63.6625(e), (f), (h), and (i).
[45CSR34; 40 C.F.R. § 63.6625] (EDG3)

- 7.2.2 For EG-1, see Sections 5 and 8 of Class II Emergency Generator General Permit G60-C (Appendix C).

7.3 Testing Requirements

- 7.3.1 For EG-1, see Sections 5 and 8 of Class II Emergency Generator General Permit G60-C (Appendix C).

7.4 Recordkeeping Requirements

- 7.4.1 The permittee must comply with the recordkeeping requirements of 40 C.F.R. §63.6655 with the exception of 40 C.F.R. §63.6655(c) which does not apply.
[45CSR34; 40 C.F.R. §§63.6655 (a), (b), (d), (e), & (f)] (EDG3)

7.4.2 For EG-1, see Sections 5 and 8 of Class II Emergency Generator General Permit G60-C (Appendix C).

7.5 Reporting Requirements

7.5.1 The permittee must comply with the reporting requirements of 40 C.F.R. §63.6650(h).
[45CSR34; 40 C.F.R. §63.6650(h)] (EDG1, EDG 2 and EDG3)

7.5.2 If the emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of 40 C.F.R. 63 Subpart ZZZZ, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.
[45CSR34; Footnote 1 of Table 2c of 40 C.F.R. 63 Subpart ZZZZ] (EDG1, EDG2 and EDG3)

7.5.3 The permittee must report each instance in which each applicable emission limitation or operating limitation in Table 2c of 40 C.F.R 63 Subpart ZZZZ was not met. These instances are deviations from the emission and operating limitations of 40 C.F.R 63 Subpart ZZZZ. These deviations must be reported according to the requirements of 40 C.F.R § 63.6650.
[45CSR34; 40 C.F.R. §63.6640(b)] (EDG3)

7.5.4 The permittee must report each instance in which the applicable requirements in Table 8 of 40 C.F.R. 63 Subpart ZZZZ were not met.
[45CSR34; 40 C.F.R. §63.6640(e)] (EDG3)

7.5.5 For EG-1, see Sections 5 and 8 of Class II Emergency Generator General Permit G60-C (Appendix C).

7.6 Compliance Plan

N/A

8.0. Source-Specific Requirements [Emission Unit IDs- RDRU, BF-01, CV-01 to CV-04 and ST-003]

8.1. Limitations and Standards

8.1.1. Emissions from activities permitted herein shall not exceed the following when handling Powder River Basin Coal:

	PM		PM ₁₀		PM _{2.5}	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Railcar Unloading	0.66	0.45	0.31	0.22	0.05	0.04
Coal Load-in	3.27	2.25	1.55	1.07	0.24	0.17
Coal Storage Pile	0.43	0.06	0.22	0.03	0.09	0.01
Coal Load-out	9.14	6.28	2.12	1.46	0.21	0.14
Conv. Transfer Points	1.31	1.35	0.62	0.64	0.10	0.10
Total	14.81	10.39	4.82	3.42	0.69	0.46

[45CSR13, R13-2988 (Condition 4.1.1)] (RDRU, BF-01, CV-01 to CV-04 and ST-003)

8.1.2. Emissions from activities permitted herein shall not exceed the following when handling Illinois Basin Coal:

	PM		PM ₁₀		PM _{2.5}	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Railcar Unloading	0.80	0.55	0.38	0.26	0.06	0.04
Coal Load-in	3.97	2.74	1.88	1.30	0.29	0.20
Coal Storage Pile	0.21	0.06	0.11	0.03	0.05	0.01
Coal Load-out	4.52	3.11	0.86	0.59	0.10	0.07
Conv. Transfer Points	1.59	1.64	0.76	0.78	0.12	0.12
Total	11.09	8.1	3.99	2.96	0.62	0.44

[45CSR13, R13-2988 (Condition 4.1.2)] (RDRU, BF-01, CV-01 to CV-04 and ST-003)

8.1.3. In no case shall annual emissions exceed the following:

	PM	PM ₁₀	PM _{2.5}
	TPY	TPY	TPY
Total	10.39	3.42	0.46

[45CSR13, R13-2988 (Condition 4.1.3)] (RDRU, BF-01, CV-01 to CV-04 and ST-003)

8.1.4. The facility's annual throughput of total coal shall not exceed 5,000,000 tons per year. Compliance with this limit shall be based on a 12 month rolling total.

[45CSR13, R13-2988 (Condition 4.1.4)] (RDRU, BF-01, CV-01 to CV-04 and ST-003)

8.1.5. No person shall cause, suffer, allow or permit any source of fugitive particulate matter to operate that is not equipped with a fugitive particulate matter control system. This system shall be operated and maintained in such a manner as to minimize the emission of fugitive particulate matter.

[45CSR§2-5.1, 45CSR13, R13-2988 (Condition 4.1.5)] (RDRU, BF-01, CV-01 to CV-04 and ST-003)

8.1.6. On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008, must meet the requirements in paragraphs (b)(1) through (3) of 40 C.F.R. §60.254, as applicable to the affected facility.

[40CFR§60.254(b); 45CSR16] (RDRU, BF-01, CV-01 to CV-04 and ST-003)

(1) Except as provided in paragraph (b)(3) of 40 C.F.R. §60.254, the owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit 10 percent opacity or greater.

[40CFR§60.254(b)(1); 45CSR16] (RDRU, BF-01, CV-01 to CV-04)

(2) The owner or operator must not cause to be discharged into the atmosphere from any mechanical vent on an affected facility gases which contain particulate matter in excess of 0.023 g/dscm (0.010 gr/dscf).

[40CFR§60.254(b)(2); 45CSR16] (RDRU)

(3) Equipment used in the loading, unloading, and conveying operations of open storage piles are not subject to the opacity limitations of paragraph (b)(1) of 40 C.F.R. §60.254.

[40CFR§60.254(b)(3); 45CSR16] (RDRU, BF-01, CV-01 to CV-04)

[45CSR13, R13-2988 (Condition 4.1.6)]

8.1.7. **Fugitive Coal Dust Emissions Control Plan for Subpart Y - Fugitive Coal Dust Emissions Control Plan.** The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with a submitted fugitive coal dust emissions control plan that is appropriate for the site conditions as specified in paragraphs (c)(1) through (6) of 40 C.F.R. §60.254.

[40CFR§60.254(c); 45CSR16] (RDRU, BF-01, CV-01 to CV-04 and ST-003)

(1) The fugitive coal dust emissions control plan must identify and describe the control measures the owner or operator will use to minimize fugitive coal dust emissions from each open storage pile.

[40CFR§60.254(c)(1); 45CSR16] (ST-003)

- (2) For open coal storage piles, the fugitive coal dust emissions control plan must require that one or more of the following control measures be used to minimize to the greatest extent practicable fugitive coal dust: Locating the source inside a partial enclosure, installing and operating a water spray or fogging system, applying appropriate chemical dust suppression agents on the source (when the provisions of paragraph (c)(6) of 40 C.F.R. §60.254 are met), use of a wind barrier, compaction, or use of a vegetative cover. The owner or operator must select, for inclusion in the fugitive coal dust emissions control plan, the control measure or measures listed in this paragraph that are most appropriate for site conditions. The plan must also explain how the measures or measures selected are applicable and appropriate for site conditions. In addition, the plan must be revised as needed to reflect any changing conditions at the source.
[40CFR§60.254(c)(2); 45CSR16] (ST-003)
- (3) Any owner or operator of an affected facility that is required to have a fugitive coal dust emissions control plan may petition the Administrator to approve, for inclusion in the plan for the affected facility, alternative control measures other than those specified in paragraph (c)(2) of 40 C.F.R. §60.254 as specified in paragraphs (c)(3)(i) through (iv) of 40 C.F.R. §60.254.
[40CFR§60.254(c)(3); 45CSR16] (RDRU, BF-01, CV-01 to CV-04 and ST-003)
- (i) The petition must include a description of the alternative control measures, a copy of the fugitive coal dust emissions control plan for the affected facility that includes the alternative control measures, and information sufficient for EPA to evaluate the demonstrations required by paragraph (c)(3)(ii) of 40 C.F.R. §60.254.
[40CFR§60.254(c)(3)(i); 45CSR16] (RDRU, BF-01, CV-01 to CV-04 and ST-003)
- (ii) The owner or operator must either demonstrate that the fugitive coal dust emissions control plan that includes the alternative control measures will provide equivalent overall environmental protection or demonstrate that it is either economically or technically infeasible for the affected facility to use the control measures specifically identified in paragraph (c)(2).
[40CFR§60.254(c)(3)(ii); 45CSR16] (RDRU, BF-01, CV-01 to CV-04 and ST-003)
- (iii) While the petition is pending, the owner or operator must comply with the fugitive coal dust emissions control plan including the alternative control measures submitted with the petition. Operation in accordance with the plan submitted with the petition shall be deemed to constitute compliance with the requirement to operate in accordance with a fugitive coal dust emissions control plan that contains one of the control measures specifically identified in paragraph (c)(2) of 40 C.F.R. §60.254 while the petition is pending.
[40CFR§60.254(c)(3)(iii); 45CSR16] (RDRU, BF-01, CV-01 to CV-04 and ST-003)
- (iv) If the petition is approved by the Administrator, the alternative control measures will be approved for inclusion in the fugitive coal dust emissions control plan for the affected facility. In lieu of amending this subpart, a letter will be sent to the facility describing the specific control measures approved. The facility shall make any such letters and the applicable fugitive coal dust emissions control plan available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.
[40CFR§60.254(c)(3)(iv); 45CSR16] (RDRU, BF-01, CV-01 to CV-04 and ST-003)
- (4) The owner or operator must submit the fugitive coal dust emissions control plan to the Administrator or delegated authority prior to the startup of the new, reconstructed, or modified affected facility, or 30 days after the effective date of this rule, whichever is later.
[40CFR§60.254(c)(4); 45CSR16] (RDRU, BF-01, CV-01 to CV-04 and ST-003)

- (5) The Administrator or delegated authority may object to the fugitive coal dust emissions control plan as specified in paragraphs (c)(5)(i) of 40 C.F.R. §60.254.
[40CFR§60.254(c)(5); 45CSR16] (RDRU, BF-01, CV-01 to CV-04 and ST-003)
- (i) The Administrator or delegated authority may object to any fugitive coal dust emissions control plan that it has determined does not meet the requirements of paragraphs (c)(1) and (c)(2) of 40 C.F.R. §60.254.
[40CFR§60.254(c)(5)(i); 45CSR16] (RDRU, BF-01, CV-01 to CV-04 and ST-003)
- (ii) If an objection is raised, the owner or operator, within 30 days from receipt of the objection, must submit a revised fugitive coal dust emissions control plan to the Administrator or delegate authority. The owner or operator must operate in accordance with the revised fugitive coal dust emissions control plan. The Administrator or delegated authority retain the right, under paragraph (c)(5) of 40 C.F.R. §60.254, to object to the revised control plan if it determines the plan does not meet the requirements of paragraphs (c)(1) and (c)(2) of 40 C.F.R. §60.254.
[40CFR§60.254(c)(5)(ii); 45CSR16] (RDRU, BF-01, CV-01 to CV-04 and ST-003)
- (6) Where appropriate chemical dust suppressant agents are selected by the owner or operator as a control measure to minimize fugitive coal dust emissions, (1) only chemical dust suppressants with Occupational Safety and Health Administration (OSHA)-compliant material safety data sheets (MSDS) are to be allowed; (2) the MSDS must be included in the fugitive coal dust emissions control plan; and (3) the owner or operator must consider and document in the fugitive coal dust emissions control plan the site-specific impacts associated with the use of such chemical dust suppressants.
[40CFR§60.254(c)(6); 45CSR16] (RDRU, BF-01, CV-01 to CV-04 and ST-003)

[45CSR13, R13-2988 (Condition 4.1.7)]

- 8.1.8 The process rates contained in Table 1.0 of this permit shall not be exceeded. Additionally, the permittee shall install, maintain and operate all control devices listed in Table 1.0 of this permit.
[45CSR13, R13-2988 (Condition 4.1.8)] (RDRU, BF-01, CV-01 to CV-04 and ST-003)
- 8.1.9. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11, 45CSR13, R13-2988 (Condition 4.1.9)] (RDRU, BF-01, CV-01 to CV-04 and ST-003)
- 8.1.10. The total amount of S-Sorb delivered to the two S-Sorb Silos (RC Units 8200 and 8300) combined shall not exceed 23,750 tons per year. Compliance with this condition shall be based on a rolling twelve month total.
[45CSR13, R13-2988 (Condition 4.1.9)]
- 8.1.11. S-Sorb Silos (RC Units 8200 and 8300) shall be equipped with fabric filters. Said filters shall be designed, installed, operated and maintained so as to reduce particulate matter emissions by at least 99.99%.
[45CSR13, R13-2988 (Condition 4.1.10)]
- 8.1.12. S-Sorb Day Bin (RC Unit 3200) shall be equipped with a fabric filter. Said filter shall be designed, installed, operated and maintained so as to reduce particulate matter emissions by at least 99.92%.
[45CSR13, R13-2988 (Condition 4.1.11)]

- 8.1.13. The total amount of MerSorb delivered to the MerSorb storage tank (RC Unit 3500) shall not exceed 115,200 gallons per year. Compliance with this condition shall be based on a rolling twelve month total. [45CSR13, R13-2988 (Condition 4.1.12)]
- 8.1.14. NOx emissions from the Units 1, 2 and 3 boilers shall not exceed the following based on a rolling 30 day average. For the purposes of this permit, a rolling 30 day average shall mean the average daily (calendar day) emission rate from the last 30 operating days, excluding NOx emissions during periods that ammonia injection to the selective catalytic reduction system must be discontinued due to low flue gas temperature to avoid damaging the catalyst. Low flue gas temperature conditions shall mean when the temperature of the flue gas is less than 605F during any operating hour and this time shall be excluded from the operating day for the purpose of averaging. An operating day shall mean a calendar day in which any boiler is operated for at least one hour.
- a. The NOx emission rate shall not exceed 0.25 lb/mmbtu on a 30 day rolling average; and
- b. Beginning the 30 day period that commences on May 1 and ends on May 30 and for each succeeding 30 day period through September 30, the NOx emission rate shall not exceed ⁽¹⁾0.20 lb/mmbtu.
- (1) But for the following one-time exception for Unit 2 boiler only, during the five (5), consecutive 30 day periods of May through September 2016, preceding and during a catalyst replacement: The NOx emission rate shall not exceed 0.28 lb/mmbtu on a 30 day rolling average.
- c. The permittee shall monitor the catalyst flue gas temperature and record it as rolling block hourly averages. The recorded information shall include the date, hour, catalyst flue gas temperature, ammonia flow and an indicator that shows if the ammonia flow has been discontinued due to low flue gas temperature.
- d. The permittee shall maintain on-site the records required in 8.1.14.c. for a period of five (5) years. Such records may be in electronic form but must be available for inspection by designated agents of the DAO and exportable to standard database/spreadsheet formats. [45CSR13, R13-2988 (Condition 4.1.13)]

8.2. Monitoring Requirements

N/A

8.3. Testing Requirements

- 8.3.1. The permittee shall comply with all applicable standards of 40 CFR 60 Subpart Y including but not limited to the following:
Performance Tests and Other Compliance Requirements for Subpart Y - Performance Tests. An owner or operator of each affected facility that commenced construction, reconstruction, or modification after April 28, 2008, must conduct performance tests according to the requirements of §60.8 and the methods identified in §60.257 to demonstrate compliance with the applicable emission standards in Subpart Y as specified in paragraphs (b)(1) and (b)(2) of 40 C.F.R. §60.255.
[40CFR§60.255(b); 45CSR16]
- (2) For each affected facility subject to an opacity standard, an initial performance test must be performed. Thereafter, a new performance test must be conducted according to the requirements in paragraphs (b)(2)(i) through (iii) of 40 C.F.R. §60.255, as applicable, except as provided for in paragraphs (e) and (f) of 40

C.F.R. §60.255. Performance test and other compliance requirements for coal truck dump operations are specified in paragraph (h) of 40 C.F.R. §60.255.

[40CFR§60.255(b)(2); 45CSR16]

(i) If any 6-minute average opacity reading in the most recent performance test exceeds half the applicable opacity limit, a new performance test must be conducted within 90 operating days of the date that the previous performance test was required to be completed.

[40CFR§60.255(b)(2)(i); 45CSR16]

(ii) If all 6-minute average opacity readings in the most recent performance are equal to or less than half the applicable opacity limit, a new performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed.

[40CFR§60.255(b)(2)(ii); 45CSR16]

[45CSR13, R13-2988 (Condition 4.2.1)] (RDRU, BF-01, CV-01 to CV-04 and ST-003)

8.3.2 **Performance Tests and Other Compliance Requirements for Subpart Y - Monitoring Visible Emissions or Digital Opacity Compliance System.** As an alternative to meeting the requirements in paragraph (b)(2) of 40 C.F.R. §60.255, an owner or operator of an affected facility that commenced construction, reconstruction, or modification after April 28, 2008, may elect to comply with the requirements in paragraph (f)(1) or (f)(2) of 40 C.F.R. §60.255.

[40CFR§60.255(f); 45CSR16]

(1) Monitor visible emissions from each affected facility according to the requirements in paragraphs (f)(1)(i) through (iii) of 40 C.F.R. §60.255.

[40CFR§60.255(f)(1); 45CSR16]

(i) Conduct one daily 15-second observation each operating day for each affected facility (during normal operation) when the coal preparation and processing plant is in operation. Each observation must be recorded as either visible emissions observed or no visible emissions observed. Each observer determining the presence of visible emissions must meet the training requirements specified in §2.3 of Method 22 of appendix A-7 of this part. If visible emissions are observed during any 15-second observation, the owner or operator must adjust the operation of the affected facility and demonstrate within 24 hours that no visible emissions are observed from the affected facility. If visible emissions are observed, a Method 9, of appendix A-4 of this part, performance test must be conducted within 45 operating days.

[40CFR§60.255(f)(1)(i); 45CSR16]

(ii) Conduct monthly visual observations of all processes and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible.

[40CFR§60.255(f)(1)(ii); 45CSR16]

(iii) Conduct a performance test using Method 9 of Appendix A-4 of this part at least once every 5 calendar years for each affected facility.

[40CFR§60.255(f)(1)(iii); 45CSR16]

(2) Prepare a written site-specific monitoring plan for a digital opacity compliance system for approval by the Administration or delegated authority. The plan shall require observations of at least one digital image every 15 seconds for 10-minute periods (during normal operation) every operating day. An approvable monitoring plan must include a demonstration that the occurrences of visible emissions are not in excess of 5 percent of the observation period. For reference purposes in preparing the monitoring plan, *see* OAQPS “Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic

Analysis Systems.” This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods. The monitoring plan approved by the Administrator delegated authority shall be implemented by the owner or operator.

[40CFR§60.255(f)(2); 45CSR16]

[45CSR13, R13-2988 (Condition 4.2.2)] (RDRU, BF-01, CV-01 to CV-04 and ST-003)

8.3.3 The permittee shall perform daily monitoring and recordkeeping of the total daily sorbent usage rate, and records of startups, shut-downs, malfunctions, and maintenance of the Refined Coal System. Daily records maintained in accordance with this paragraph shall be available upon request at the facility.

[45CSR13, R13-2988 (Condition 4.2.3)]

8.3.4. In order to determine compliance with condition 8.1.10, the permittee shall monitor and record the amount of S-Sorb delivered to the facility on a daily basis.

[45CSR13, R13-2988 (Condition 4.2.4)]

8.3.5. In order to determine compliance with condition 8.1.13, the permittee shall monitor and record the amount of MerSorb delivered to the facility on a daily basis.

[45CSR13, R13-2988 (Condition 4.2.5)]

8.3.6. In order to determine compliance with condition 8.1.14, the permittee shall install, certify, operate and maintain continuous emissions monitoring systems (CEMS). Said CEMs shall be designed, installed, operated and maintained in accordance with 40 CFR 75 as applicable.

[45CSR13, R13-2988 (Condition 4.2.6)]

8.4. Recordkeeping Requirements

8.4.1. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

[45CSR13, R13-2988 (Condition 4.3.2)] (RDRU, BF-01, CV-01 to CV-04 and ST-003)

8.4.2. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.

- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
[45CSR13, R13-2988 (Condition 4.3.3)] (RDRU, BF-01, CV-01 to CV-04 and ST-003)
- 8.4.3. In order to determine compliance with the throughput requirement of section 8.1.4 of this permit the permittee shall monitor and record the amount of total coal processed through the [Rapid Discharge Rail Unloading](#) facility on a monthly basis.
[45CSR13, R13-2988 (Condition 4.3.4)] (RDRU, BF-01, CV-01 to CV-04 and ST-003)
- 8.4.4. In order to determine compliance with the requirements of sections 8.3.1 and 8.3.2 of this permit, records of the Method 22 and/or Method 9 testing shall be retained on site by the permittee for at least five (5) years. Upon request the records shall be certified and made available to the Director or his/her duly authorized representative.
[45CSR13, R13-2988 (Condition 4.3.5)] (RDRU, BF-01, CV-01 to CV-04 and ST-003)
- 8.4.5. The owner or operator of a coal preparation and processing plant that commenced construction, reconstruction, or modification after April 28, 2008, shall maintain in a logbook (written or electronic) on-site and make it available upon request. The logbook shall record the following:
- (1) The manufacturer's recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities. Any variance from manufacturer recommendation, if any, shall be noted.
 - (2) The date and time of periodic coal preparation and processing plant visual observations, noting those sources with visible emissions along with corrective actions taken to reduce visible emissions. Results from the actions shall be noted.
 - (3) The amount and type of coal processed each calendar month.
 - (4) The amount of chemical stabilizer or water purchased for use in the coal preparation and processing plant.
 - (5) Monthly certification that the dust suppressant systems were operational when any coal was processed and that manufacturer's recommendations were followed for all control systems. Any variance from the manufacturer's recommendations, if any, shall be noted.
 - (6) Monthly certification that the fugitive coal dust emissions control plan was implemented as described. Any variance from the plan, if any, shall be noted. A copy of the applicable fugitive coal dust emissions control plan and any letters from the Administrator providing approval of any alternative control measures shall be maintained with the logbook. Any actions, e.g., objections, to the plan and any actions relative to the alternative control measures, e.g., approvals, shall be noted in the logbook as well.
 - (7) For each bag leak detection system, the owner or operator must keep the records specified in paragraphs (a)(7)(i) through (iii) of this section.
 - (i) Records of the bag leak detection system output;
 - (ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection settings; and
 - (iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the cause of the alarm was alleviated within 3 hours of the alarm.
 - (8) A copy of any applicable monitoring plan for a digital opacity compliance system and monthly certification that the plan was implemented as described. Any variance from plan, if any, shall be noted.

(9) During a performance test of a wet scrubber, and each operating day thereafter, the owner or operator shall record the measurements of the scrubber pressure loss, water supply flow rate, and pH of the wet scrubber liquid.

(10) During a performance test of control equipment other than a wet scrubber, and each operating day thereafter, the owner or operator shall record the measurements of the reagent injection flow rate, as applicable.

[40CFR§60.258(a); 45CSR16] (RDRU, BF-01, CV-01 to CV-04 and ST-003)

8.5. Reporting Requirements

8.5.1. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observation using 40CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.
[45CSR13, R13-2988 (Condition 4.4.1)] (RDRU, BF-01, CV-01 to CV-04 and ST-003)

8.5.2. *§60.258 Reporting and recordkeeping.*

(b) For the purpose of reports required under section 60.7(c), any owner operator subject to the provisions of this subpart also shall report semiannually periods of excess emissions as follow:

(1) The owner or operator of an affected facility with a wet scrubber shall submit semiannual reports to the Administrator or delegated authority of occurrences when the measurements of the scrubber pressure loss, water supply flow rate, or pH of the wet scrubber liquid vary by more than 10 percent from the average determined during the most recent performance test.

(2) The owner or operator of an affected facility with control equipment other than a wet scrubber shall submit semiannual reports to the Administrator or delegated authority of occurrences when the measurements of the reagent injection flow rate, as applicable, vary by more than 10 percent from the average determined during the most recent performance test.

(3) All 6-minute average opacities that exceed the applicable standard.

(c) The owner or operator of an affected facility shall submit the results of initial performance tests to the Administrator or delegated authority, consistent with the provisions of section 60.8. The owner or operator who elects to comply with the reduced performance testing provisions of sections 60.255(c) or (d) shall include in the performance test report identification of each affected facility that will be subject to the reduced testing. The owner or operator electing to comply with section 60.255(d) shall also include information which demonstrates that the control devices are identical.

(d) After July 1, 2011, within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with this subpart, the owner or operator of the affected facility must submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at <http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main>. For performance tests that cannot be entered into WebFIRE (*i.e.*, Method 9 of appendix A-4 of this part opacity performance tests) the owner or operator of the affected facility must mail a summary copy to United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; mail code: D243-01; RTP, NC 27711.

[40CFR§60.258(b), (c), (d); 45CSR16] (RDRU, BF-01, CV-01 to CV-04 and ST-003)

8.6. Compliance Plan

N/A

APPENDIX A

HARRISON POWER STATION
REVISION 3

Monitoring and Recordkeeping Plan
45 CSR 2 and 45 CSR 10
Utility Boilers

Monitoring and Recordkeeping Plan
45 CSR 2 and 45 CSR 10
Utility Boilers

Facility Information:

Facility Name: Harrison Power Station

Facility Address: Harrison Power Station
State Route 20 (P.O. Box 600)
Haywood, WV 26366

Facility Contact: Gary J. Dinzeo
Director, Harrison Plant
Telephone: (304) 584-2233
Fax: (304) 584-2408

Air Permitting: James A. Lefik
FirstEnergy Environmental Department
800 Cabin Hill Drive
Greensburg, PA 15601
Telephone: (724) 838-6136
Fax: (234) 678-2384

Facility Description: (Plant ID #3300015)

The Harrison Power Station is a coal-fired electric generating facility with three (3) main combustion units (Units 1, 2 & 3) with in-service dates of 1972, 1973, and 1974 respectively, discharging through three (3) scrubbed stacks (1, 2, and 3) housed within a single concrete stack shell. The plant was retrofitted with a flue-gas desulfurization system (FGD) on all three units in 1995. The scrubbed stacks have a height of approximately 1,000 feet each, with an outlet diameter of approximately 26 feet each. Each combustion unit is also equipped with an electrostatic precipitator (ESP) with 99.5% removal efficiency. There are two (2) hyperbolic cooling towers that service the three units. The Harrison Power Station also has two (2) auxiliary boilers (1A and 1B) that discharge to a separate (auxiliary) stack. Each unit has a design heat input greater than 10 MMBtu/hr making them subject to 45 CSR 2 and 45 CSR 10.

I. 45 CSR 2 Monitoring Plan:

In accordance with §45-2-8.2.a., the following proposed plan is for monitoring compliance with the opacity limits found in §45-2-3:

A. Scrubbed Stacks 1, 2 and 3

1. Applicable Standard:

Visible Emission Limit: 10% opacity based on a six-minute block average, 45CSR§2-3.1.

2. Monitoring Methods

Per 45CSR§2-3.2, fuel burning units which employ wet scrubbing systems are not required to install continuous opacity monitors (COMS). The Harrison Power Station will demonstrate compliance utilizing the “Non-COMS Based Monitoring” option under 45CSR§2A-6.3

45CSR§2A-6.3.a.5: Explanation of Chosen Input Parameter and how it is Indicative of Compliance

In April 2009, CAM testing was conducted at Harrison Power Station for the purpose of determining minimum ESP power levels that were needed to indicate compliance with the filterable particulate matter weight emission rate for each unit. Power input data (based on secondary voltage and secondary current) for each field of the ESP was collected during the full range of normal daily operations, in accordance with the WVDEP approved CAM test protocol. A TEOM 7000 Source Particulate Sampler was used to collect representative short-term continuous PM samples. The minimum power levels needed to demonstrate compliance with the 316.25 lbs/hr filterable PM limit were identified and reported for each unit, as follows:

Unit 1: 127 kW
Unit 2: 118 kW
Unit 3: 104 kW

45CSR§2A-6.3.a.6: Explanation of how Nominal Ranges were chosen

ESP power range is based on specifications of each precipitator, based on the total secondary power (sum of current x voltage) in each T/R set. The minimum unit-specific power levels above were determined during the CAM testing.

45CSR§2A-6.3.a.8: Response Plan to be Implemented during Excursions

If the ESP power input in any unit drops below the minimum level (Unit 1 = 127 kW; Unit 2 = 118 kW; Unit 3 = 104 kW) for any period exceeding one hour, the owner or operator shall perform Method 9 readings for a minimum of six (6) minutes for each hour during the excursion. Such Method 9 readings shall continue each hour until four (4) successive six-minute observations demonstrate compliance.

- c. In addition to the opacity and parametric monitoring, each unit will continue to be periodically tested for particulate matter using the prescribed schedule as outlined in 45CSR§2-8.1 and 45CSR§2A-5.2. Method 9 visible emission tests shall be conducted in conjunction with all weight emission testing as outlined in 45CSR§2A-5.1.a.

B. Auxiliary Stack

1. Applicable Standard: 10% opacity based on a six-minute block average 45CSR§2-3.1.
2. Monitoring Method(s)

The Harrison Power Station petitioned the Office of Air Quality (OAQ) Chief for alternative monitoring requirements and exemption from testing for the auxiliary boilers and the associated stack, pursuant to 45CSR2 Section 8.4.a and 8.4.a.1 (Infrequent Use Exception). Based on an average heat content of 139,000 mmBtu/gallon and a design heat input of 202.2 mmBtu/hour, Auxiliary Boilers 1A and 1B totaled 0.0 hours of oil-fired operation over the 2010-2012 three-year time period. Similarly, Aux Boiler 1A averaged 9.8 hours, and Aux Boiler 1B averaged 8.2 hours of natural gas-firing over the same three-year period. Thus, the average total hours of operation for auxiliary boilers is approximately 9 hours per boiler per year, or approximately 0.1% of the 8,760 available hours for each boiler. Based on these limited actual operating hours, Harrison still believes that the requirement for COMS installation per 45 CSR2A Section 6.2.a is overly burdensome and sufficient reason for the continuation of the alternative monitoring

methods proposed here. The Harrison Power Station will continue, as an alternative to COMS monitoring, to conduct Method 9 (visible emission) readings, with a minimum duration of thirty (30) minutes, once a month provided the following conditions are met: 1) The auxiliary boiler has operated at normal, stable load conditions for at least 24 consecutive hours, and 2) weather/lighting conditions are conducive to taking proper Method 9 readings.

II. 45 CSR 10 Monitoring Plan:

In accordance with 45CSR§10-8.2.c., the following is the proposed plan for monitoring compliance with the sulfur dioxide weight emission standards expressed in 45CSR§10-3:

A. Scrubbed Stacks 1, 2 and 3

1. Applicable Standard: The product of 5.12 and the total actual heat inputs for all units discharging through the stacks in million BTU's per hour. Compliance with the SO₂ limit is based on a continuous 24-hour averaging time; 45CSR§§10-3.3a and 3.8.
2. Monitoring Method: The method of monitoring SO₂ mass emissions from Stacks 1, 2 and 3 will be Continuous Emission Monitors (CEMS). The CEMS are installed, maintained and operated in compliance with 40 CFR Part 75. As specified in 45 CSR§10-8.2.c.1, measurement with a certified CEMS shall satisfy the monitoring plan requirements.

B. Auxiliary Stack

1. Applicable Standard: The product of 3.2 and the total design heat inputs for Type "b" fuel burning units, discharging through the stacks in million BTU's per hour. Compliance with the SO₂ limit is based on a continuous 24-hour averaging time. Ref: 45CSR§§10-3.3.f and 3.8.
2. Monitoring, Recordkeeping, and Exception Reporting Requirements: The Harrison Power Station auxiliary boilers (and stack) are exempt from the Testing, Monitoring, Recordkeeping, and Reporting requirements found under 45CSR§10-8 in accordance with 45 CSR§10-10.3 because the fuel burning sources combust a combination of distillate oil and natural gas. 45CSR§10-3.8 also contains the requirement for the development of a monitoring plan. Because the burning of distillate oil results in an SO₂ emission rate well below the standard, fuel sampling and analysis may continue to be performed at this facility, but will be done so at the discretion of the owner/operator. Because the burning of natural gas results in negligible SO₂ emission rates, fuel sampling and analysis of natural gas will not be performed. It is not required by this monitoring plan for the purposes of indicating compliance of the auxiliary boilers with SO₂ standards.

III. 45 CSR 2 Recordkeeping and Reporting Plan

A. Operating Schedule and Quality/Quantity of Fuel Burned

1. The owner or operator of a fuel burning unit(s) shall maintain records of the operating schedule, and the quality and quantity of fuel burned in each fuel burning unit as determined in 45CSR§2A-7.1.a.
2. Pipeline quality natural gas only, if used: such record shall include, but not limited to, the date and time of start-up and shutdown, and the quantity of fuel consumed on a monthly basis as determined in 45CSR§2A-7.1.a.1.

3. Distillate oil only: such records shall include, but not be limited to, the date and time of start-up and shutdown, the quantity of fuel consumed on a monthly basis and a BTU analysis for each shipment as determined in 45CSR§2A-7.1.a.2.
4. Coal only: such records shall include, but not be limited to, the date and time of start-up and shutdown, the quantity of fuel consumed on a daily basis and an ash, BTU and sulfur content analysis for each shipment as determined in 45CSR§2A-7.1.a.4.
5. Alternative, and/or opportunity fuel(s): such records shall include, but not be limited to, the date and time of start-up and shutdown, and fuel quality analysis as approved by the director as determined by 45CSR§2A-7.1.a.5.
6. Combination of fuels: the owner or operator shall comply with the applicable recordkeeping requirements of 45CSR§2A-7.1.a.1 through 7.1.a.5 for each fuel burned as determined in 45CSR§2A-7.1.a.6.

B. Record Maintenance

1. Records of all required monitoring data and support information shall be maintained on-site for a period of at least five (5) years from the date of monitoring, sampling, testing, measurement and reporting. Support information includes all calibration and maintenance records, strip charts, and copies of all required reports. In the case of auxiliary boilers, strip chart recordings, etc, are generally not available.

C. Exception Reporting

1. A “Monitoring Summary Report” and/or an “Excursion and Monitoring Plan Performance Report” shall be submitted to the Director on a quarterly basis in accordance with 45CSR§2A-7.2.c. The Director may, on a case-by-case basis, require more frequent reporting if the Director deems it necessary to accurately assess the compliance status of the fuel burning unit(s). All reports required under 45CSR§2A-7.2.c shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter. The Monitoring Summary Report shall be in a format approved by the Director. Ref: 45CSR§2A-7.2.c.

45CSR2A §7.2.c.1 – If the total number of excursions for the reporting period is less than one percent (1%) of the total number of readings for the reporting period and the number of readings missing for the reporting period is less than five percent (5%) of the total number of readings agreed upon in the monitoring plan for the reporting period, the Monitoring Summary Report shall be submitted to the Director; the Excursion and Monitoring System Performance report shall be maintained on-site and shall be submitted to the Director upon request.

45CSR2A §7.2.c.2 – If the number of excursions for the reporting period is one percent (1%) or greater of the total number of readings for the reporting period or the number of readings missing for the reporting period is five percent (5%) or greater of the total number of readings agreed upon in the monitoring plan for the reporting period, the Monitoring Summary Report and the Excursion and Monitoring Plan Performance Report shall both be submitted to the Director.

45CSR2A §7.2.c.3 – The Excursion and Monitoring Plan Performance Report shall be in a format approved by the Director and shall include, but not be limited to, the following information:

45 CSR 2A §7.2.c.3.A - The magnitude of each excursion and the starting and ending dates and times of each excursion (ESP power below minimum level)

45 CSR 2A §7.2.c.3.B - Specific identification of each excursion that occurs during startups, shutdowns and malfunctions.

45 CSR 2A §7.2.c.3.C - The nature and cause of any excursion (if known), and the corrective action taken and preventative measures adopted (if any).

45 CSR 2A §7.2.c.3.D - The date and time identifying each period during when data is unavailable, and the reason for data unavailability and the corrective action taken.

45 CSR 2A §7.2.c.3.E - When no excursions have occurred or there were no periods of data unavailability, such information shall be stated in the report.

To the extent that an excursion is due to a malfunction, the reporting requirements in section 9 of 45 CSR 2 shall be followed. Ref: 45CSR§2A-7.2.d.

2. Pursuant to 45 CSR 2, Section 8.4.a and 8.4.a.1, the Harrison Power Station petitioned and was granted approval by the Office of Air Quality (OAQ) Chief for alternative testing, monitoring, and reporting requirements for the auxiliary boilers and associated stack. The basis for the petition was “infrequent operation.”
 - a. As an alternative to the testing and exception reporting requirements for particulate mass emissions from the auxiliary boilers, Harrison proposed that the fuel analysis records maintained under the fuel quality analysis and recordkeeping section of this plan provide sufficient evidence of compliance with the particulate mass emission limit. Based on an average heat content (distillate oil) of approximately 139,000 Btu/gallon and an AP-42 based particulate mass emissions emission factor of 2 lbs/thousand gallons, the calculated particulate mass emissions of the auxiliary boilers are 0.01 lb/mmBtu for each boiler when firing distillate oil. Based on an average heat content (natural gas) of approximately 1,000 Btu/scf and an AP-42 based filterable PM emission factor of 1.9 lb/Mcf, the calculated particulate mass emissions of the auxiliary boilers are 0.0019 lb/mmBtu for each boiler. Hence, it is estimated that each boiler has a calculated particulate mass emissions rate of approximately 0.0019 lb/mmBtu when firing natural gas. For the purpose of meeting exception reporting requirements for fuel oil, any fuel oil analysis indicating a heat content of less than 25,000 Btu/gallon will be reported to the OAQ to fulfill the requirement for a periodic exception report under 45 CSR 2 Section 8.3.b. and 45CSR§2A-7.2.a. A heat content of 25,000 Btu/gal and a particulate emissions factor of 2 lbs/thousand gallons would result in calculated particulate mass emissions of approximately 90% of the applicable 45 CSR 2 weight emission standard. Ref: 45CSR§2-4.1.b.
 - b. As an alternative to the exception reporting requirements for opacity emissions from the auxiliary boilers, Harrison will maintain a copy of each properly conducted (appropriate weather and lighting conditions, etc.) Method 9 evaluation on-site. Any properly conducted Method 9 test that indicates an exceedance shall be submitted to the OAQ on a quarterly basis (within 30 days of the end of the quarter) along with an accompanying description of the excursion cause, any corrective action taken, and the beginning and ending times for the excursion.

To the extent that an excursion is due to a malfunction, the reporting requirements of 45 CSR 2 Section 9 shall be followed. Ref: 45CSR§2A-7.2.d.

If no exceptions have occurred during the quarter, then a report will be submitted to the OAQ stating so. This will include periods in which no Method 9 tests were conducted (e.g. unit out of service) or when no fuel oil was received.

IV. 45 CSR 10 Recordkeeping and Reporting Plan

A. Operating Schedule and Quality/Quantity of Fuel Burned

1. The owner or operator of a fuel burning unit(s) shall maintain records of the operating schedule and the quality and quantity of fuel burned in each unit. Such records shall include, but not be limited to, the date and time of start-up and shutdown, the quantity of fuel consumed on a daily basis, and a periodic fuel quality analysis as set forth below. Ref: 45CSR §10A-7.1.a:

a. \geq 90% of Factor daily

b. $<$ 90% of Factor per shipment

The owner or operator shall provide in the monitoring plan a quality control and quality assurance program for the fuel analysis. If a certified independent laboratory is used to provide the fuel analysis, the quality control and assurance program is deemed to be satisfactory. Ref: 45CSR§10A-7.1.a.1.

- a. The owner/operator of fuel burning units utilizing CEMS shall be exempt from the provisions of 7.1.a and 7.1.b. Ref: 45CSR§10A-7.1.c.

B. Record Maintenance

1. For fuel burning units, and combustion sources, records of all required monitoring data and support information shall be maintained on-site for a period of at least five (5) years from the date of monitoring, sampling, measurement or reporting. Support information includes all calibration and maintenance records and all strip chart recordings, and copies of all reports. Ref: 45CSR§10A-7.1.d.

C. Exception Reporting

1. CEMS – each owner or operator employing CEMS for an approved monitoring plan shall submit a CEMS summary report and/or an excursion report quarterly (within 30 days of end of quarter) to the Director. The Director may request more frequent reports if deemed necessary to assess compliance of the units. The CEMS report shall be submitted in a format approved by the Director, or as specified by the Director. Ref: 45CSR§10A-7.2.a.
 - a. Submittal of 40 CFR Part 75 data in electronic data reporting (EDR) format to the Director shall be deemed to satisfy the requirements of Section 7.2.a. Ref: 45CSR§10A-7.2.a.1
2. If the total duration of excursions for the reporting period is less than four percent (4%) of the total source operating time for the reporting period and the total monitoring method downtime for the reporting period is less than five percent (5%) of the total source operating time for the reporting period, only the CEMS summary shall be submitted. The excursion summary shall be maintained on-site and shall be submitted to the Director upon request. Ref: 45CSR§10A-7.2.a.2.
3. If the total duration of excursions for the reporting period is four percent or greater of the total operating time for the reporting period or the total monitoring method downtime for the reporting period is five

percent (5%) or greater of the total operating time for the reporting period, the CEMS summary report and the excursion report shall both be submitted to the Director. Ref: 45CSR§10A-7.2.a.3.

4. The CEMS excursion and monitoring report shall be in format approved by the Director and shall include the following information. Ref: 45CSR10A-7.2.a.4.
 - a. The magnitude of each excursion, and the date and time, including starting and ending times of each excursion. Ref: 45CSR§10A-7.2.a.4.A.
 - b. Specific identification of each excursion that occurs during startups, shutdowns, and malfunctions of the facility. Ref: 45CSR§10A-7.2.a.4.B.
 - c. The nature and cause of any malfunction (if known), and the corrective action taken and preventive measures adopted. Ref: 45CSR§10A-7.2.a.4.C.
 - d. The date and time identifying each period during which quality-controlled monitoring data was unavailable, except for zero and span checks, and the reason for data unavailability and the nature of the repairs or adjustments to the monitoring system. Ref: 45CSR§10A-7.2.a.4.D.
 - e. When no excursions have occurred or there were no periods of quality-controlled data unavailability, and no monitoring systems were inoperative, repaired, or adjusted, such information shall be stated in the report. Ref: 45CSR§10A-7.2.a.4.E.

D. Auxiliary Stack (1A) Recordkeeping and Reporting

1. Recordkeeping, and Exception Reporting Requirements: The Harrison Power Station auxiliary boilers (and stack) are exempt from the Testing, Monitoring, Recordkeeping, and Reporting requirements found under 45CSR§10-8 because the fuel burning unit(s) combust natural gas and/or distillate oil. Ref: 45CSR§10-10.

APPENDIX B

Harrison Power Station CAIR Permit Application

STEP 3,
continued

Plant Name Harrison Power Station

CAIR Permit Application
Page 2

(b) Monitoring, reporting and recordkeeping requirements.

(1) The owners and operators and the CAIR designated representative, of each CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO₂ source (as applicable) and each CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO₂ unit (as applicable) at the source shall comply with the monitoring, reporting and recordkeeping requirements of sections 70 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable).

(2) The emissions measurements recorded and reported in accordance with sections 70 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable) shall be used to determine compliance by each CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO₂ source (as applicable) with the CAIR NO_x Annual emissions limitation, CAIR NO_x Ozone Season emissions limitation and CAIR SO₂ emissions limitation (as applicable) under 45CSR§39-6.3, 45CSR§40-6.3 and 45CSR§41-6.3 (as applicable).

(c) Nitrogen oxides annual emissions requirements.

(1) As of the allowance transfer deadline for the 2009 control period and each control period thereafter, the owners and operators of each CAIR NO_x Annual source and each CAIR NO_x Annual unit at the source shall hold, in the source's compliance account, CAIR NO_x Annual allowances available for compliance deductions for the control period under 45CSR§39-54.1 in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_x Annual units at the source, as determined in accordance with sections 70 through 75 of 45CSR39.

(2) A CAIR NO_x Annual unit shall be subject to the requirements under 45CSR§39-6.3.a for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitor certification requirements under subdivisions 70.2.a, 70.2.b, or 70.2.e of 45CSR39, and for each control period thereafter.

(3) A CAIR NO_x Annual allowance shall not be deducted, for compliance with the requirements under 45CSR§39-6.3.a, for the control period in a calendar year before the year for which the CAIR NO_x Annual allowance was allocated.

(4) CAIR NO_x Annual allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Allowance Tracking System accounts in accordance with sections 50 through 62, and 80 through 88 of 45CSR39.

(5) A CAIR NO_x Annual allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_x Annual Trading Program. No provision of the CAIR NO_x Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 45CSR§39-5 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR NO_x Annual allowance does not constitute a property right.

(7) Upon recordation by the Administrator under sections 40 through 62, and 80 through 88 of 45CSR39, every allocation, transfer, or deduction of a CAIR NO_x Annual allowance to or from a CAIR NO_x Annual source's compliance account is incorporated automatically in any CAIR permit of the source.

(d) Nitrogen oxides ozone season emissions requirements.

(1) As of the allowance transfer deadline for the 2009 ozone season and each ozone season thereafter, the owners and operators of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_x Ozone Season allowances available for compliance deductions for the ozone season under 45CSR§40-54.1 in an amount not less than the tons of total nitrogen oxides emissions for the ozone season from all CAIR NO_x Ozone Season units at the source, as determined in accordance with sections 70 through 75 of 45CSR40.

(2) A CAIR NO_x Ozone Season unit shall be subject to the requirements under 45CSR§40-6.3.a for the ozone season starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under subdivisions 70.2.a, 70.2.b, 70.2.c or 70.2.g of 45CSR40 and for each ozone season thereafter.

(3) A CAIR NO_x Ozone Season allowance shall not be deducted, for compliance with the requirements under 45CSR§40-6.3.a, for an ozone season in a calendar year before the year for which the CAIR NO_x Ozone Season allowance was allocated.

(4) CAIR NO_x Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Ozone Season Allowance Tracking System accounts in accordance with sections 50 through 62, and 80 through 88 of 45CSR40.

(5) A CAIR NO_x Ozone Season allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_x Ozone Season Trading Program. No provision of the CAIR NO_x Ozone Season Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 45CSR§40-5 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR NO_x Ozone Season allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subdivision 43.3, sections 51 through 57, 60 through 62, and 80 through 88 of 45CSR40, every allocation, transfer, or deduction of a CAIR NO_x Ozone Season allowance to or from a CAIR NO_x Ozone Season source's compliance account is incorporated automatically in any CAIR permit of the source.

(e) Sulfur dioxide annual emission requirements.

(1) As of the allowance transfer deadline for the 2010 control period and each control period thereafter, the owners and operators of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall hold, in the source's compliance account, a tonnage equivalent of CAIR SO₂ allowances available for compliance deductions for the control period, as determined in accordance with subsections 54.1 and 54.2 of 45CSR§41 in an amount not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO₂ units at the source, as determined in accordance with sections 70 through 75 of 45CSR41.

(2) A CAIR SO₂ unit shall be subject to the requirements under 45CSR§41-6.3.a for the control period starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under subdivisions 70.2.a, 70.2.b, or 70.2.e of 45CSR41 and for each control period thereafter.

(3) A CAIR SO₂ allowance shall not be deducted, for compliance with the requirements under 45CSR§41-6.3.a, for a control period in a calendar year before the year for which the CAIR SO₂ allowance was allocated.

(4) CAIR SO₂ allowances shall be held in, deducted from, or transferred into or among CAIR SO₂ Allowance Tracking System accounts in accordance with sections 51 through 62, and 80 through 88 of 45CSR41.

(5) A CAIR SO₂ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO₂ Trading Program. No provision of the CAIR SO₂ Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 45CSR§41-5 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR SO₂ allowance does not constitute a property right.

(7) Upon recordation by the Administrator under sections 51 through 57, 60 through 62, and 80 through 88 of 45CSR41, every allocation, transfer, or deduction of a CAIR SO₂ allowance to or from a CAIR SO₂ source's compliance account is incorporated automatically in any CAIR permit of the source.

APPENDIX C

Class II Emergency Generator General Permit G60-C

APPENDIX D

Harrison Power Station Acid Rain Permit



west virginia department of environmental protection
Division of Air Quality

Phase II Acid Rain Permit

Plant Name: Harrison Power Station		Permit #: R33-3944-2017-4
Affected Unit(s): 1, 2, 3		
Operator: Allegheny Energy Supply Company, LLC		ORIS Code: 3944
Effective Date	From: January 1, 2013	To: December 31, 2017

Contents:

1. Statement of Basis.
2. SO₂ allowances allocated under this permit and NO_x requirements for each affected unit.
3. Comments, notes and justifications regarding permit decisions and changes made to permit application forms during the review process, and any additional requirements or conditions.
4. The permit application forms submitted for this source, as corrected by the West Virginia Division of Air Quality. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

1. Statement of Basis

Statutory and Regulatory Authorities: In accordance with W. Va. Code §22-5-4(a)(16) and Titles IV and V of the Clean Air Act, the West Virginia Department of Environmental Protection, Division of Air Quality issues this permit pursuant to 45CSR33 and 45CSR30.

Permit Approval



John A. Benedict, Director
Division of Air Quality

12-19-12

Date

Promoting a healthy environment

Approved: June 2, 2015 • Modified: [September 27, 2016](#)

West Virginia Department of Environmental Protection • Division of Air Quality

Plant Name: Harrison Power Station	Permit #: R33-3944-2017-4
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2. SO₂ Allocations and NO_x Requirements for each affected unit

Unit No. 1

SO ₂ Allowances	Year				
	2013	2014	2015	2016	2017
Table 2 allowances, as adjusted by 40CFR Part 73	21002	21002	21002	21002	21002
Repowering plan allowances	N/A	N/A	N/A	N/A	N/A
The number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. The aforementioned condition does not necessitate a revision to the unit SO ₂ allowance allocations identified in this permit (See 40 CFR §72.84).					

NO _x Requirements	2013	2014	2015	2016	2017
NO_x Limit (lb/mmBtu)	0.42	0.42	0.42	0.42	0.42
Pursuant to 40 CFR §76.11, the West Virginia Department of Environmental Protection, Division of Air Quality approves five (5) NO _x emissions averaging plans for this unit. Each plan is effective for one calendar year for the years 2013, 2014, 2015, 2016 and 2017. Under each plan, the unit's NO _x emissions shall not exceed the annual alternative contemporaneous emission limitation (ACEL) of 0.42 lb/mmBtu. In addition, this unit shall not have an annual heat input less than 28,100,000 mmBtu.					
Under the plan, the actual Btu-weighted annual average NO _x emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO _x emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR §76.5, 76.6 or 76.7, except that for early election units, the applicable emission limitations shall be under 40 CFR §76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR §76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.					
In accordance with 40 CFR §72.40(b)(2), approval of the averaging plan shall be final only when the Pennsylvania Department of Environmental Resources, Bureau of Air Quality Control and the Maryland Department of Environment, Air and Radiation Management Administration have also approved this averaging plan.					
In addition to the described NO _x compliance plans, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO _x compliance plan and requirements covering excess emissions.					

3. Comments, notes and justifications regarding decisions, and changes made to the permit application forms during the review process:

None.

4. Permit application forms:

Attached.

West Virginia Department of Environmental Protection • Division of Air Quality

Plant Name: Harrison Power Station	Permit #: R33-3944-2017-4
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2. SO₂ Allocations and NO_x Requirements for each affected unit

Unit No. 2

SO ₂ Allowances	Year				
	2013	2014	2015	2016	2017
Table 2 allowances, as adjusted by 40CFR Part 73	19936	19936	19936	19936	19936
Repowering plan allowances	N/A	N/A	N/A	N/A	N/A
The number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. The aforementioned condition does not necessitate a revision to the unit SO ₂ allowance allocations identified in this permit (See 40 CFR §72.84).					

NO _x Requirements	2013	2014	2015	2016	2017
NO_x Limit (lb/mmBtu)	0.42	0.42	0.42	0.42	0.42
Pursuant to 40 CFR §76.11, the West Virginia Department of Environmental Protection, Division of Air Quality approves five (5) NO _x emissions averaging plans for this unit. Each plan is effective for one calendar year for the years 2013, 2014, 2015, 2016 and 2017. Under each plan, the unit's NO _x emissions shall not exceed the annual alternative contemporaneous emission limitation (ACEL) of 0.42 lb/mmBtu. In addition, this unit shall not have an annual heat input less than 34,100,000 mmBtu.					
Under the plan, the actual Btu-weighted annual average NO _x emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO _x emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR §76.5, 76.6 or 76.7, except that for early election units, the applicable emission limitations shall be under 40 CFR §76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR §76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.					
In accordance with 40 CFR §72.40(b)(2), approval of the averaging plan shall be final only when the Pennsylvania Department of Environmental Resources, Bureau of Air Quality Control and the Maryland Department of Environment, Air and Radiation Management Administration have also approved this averaging plan.					
In addition to the described NO _x compliance plans, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO _x compliance plan and requirements covering excess emissions.					

3. Comments, notes and justifications regarding decisions, and changes made to the permit application forms during the review process:

None.

4. Permit application forms:

Attached.

West Virginia Department of Environmental Protection • Division of Air Quality

Plant Name: Harrison Power Station	Permit #: R33-3944-2017-4
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2. SO₂ Allocations and NO_x Requirements for each affected unit

Unit No. 3

SO ₂ Allowances	Year				
	2013	2014	2015	2016	2017
Table 2 allowances, as adjusted by 40CFR Part 73	17928	17928	17928	17928	17928
Repowering plan allowances	N/A	N/A	N/A	N/A	N/A
The number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. The aforementioned condition does not necessitate a revision to the unit SO ₂ allowance allocations identified in this permit (See 40 CFR §72.84).					

NO _x Requirements	2013	2014	2015	2016	2017
NO_x Limit (lb/mmBtu)	0.42	0.42	0.42	0.42	0.42
Pursuant to 40 CFR §76.11, the West Virginia Department of Environmental Protection, Division of Air Quality approves five (5) NO _x emissions averaging plans for this unit. Each plan is effective for one calendar year for the years 2013, 2014, 2015, 2016 and 2017. Under each plan, the unit's NO _x emissions shall not exceed the annual alternative contemporaneous emission limitation (ACEL) of 0.42 lb/mmBtu. In addition, this unit shall not have an annual heat input less than 34,000,000 mmBtu.					
Under the plan, the actual Btu-weighted annual average NO _x emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO _x emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR §76.5, 76.6 or 76.7, except that for early election units, the applicable emission limitations shall be under 40 CFR §76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR §76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.					
In accordance with 40 CFR §72.40(b)(2), approval of the averaging plan shall be final only when the Pennsylvania Department of Environmental Resources, Bureau of Air Quality Control and the Maryland Department of Environment, Air and Radiation Management Administration Air Program Coordination have also approved this averaging plan.					
In addition to the described NO _x compliance plans, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO _x compliance plan and requirements covering excess emissions.					

3. Comments, notes and justifications regarding decisions, and changes made to the permit application forms during the review process:

None.

4. Permit application forms:

Attached.

Harrison Power Station Plant Name (from Step 1)
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STEP 3

Read the standard requirements

Permit Requirements

- (1) The designated representative of each affected source and each affected unit at the source shall:
 - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
 - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
 - (ii) Have an Acid Rain Permit.

Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another affected unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

EPA Form 7610-16 (rev. 12-03)

Approved: June 2, 2015 • Modified: September 27, 2016

Harrison Power Station
Plant Name (from Step 1)

Acid Rain - Page 3

STEP 3,
Cont'd.

Nitrogen Oxides Requirements The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

- (1) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected unit that has excess emissions in any calendar year shall:
 - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
 - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

EPA Form 7610-18 (rev. 12-03)

Approved: June 2, 2015 • Modified: September 27, 2016

Acid Rain - Page 4

Harrison Power Station Plant Name (from Step 1)	+
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Step 3,
Cont'd.

Liability, Cont'd.

- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

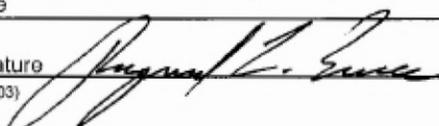
- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 4

Certification

Read the certification statement, sign, and date

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Raymond L. Evans, Designated Representative	
Name	
Signature	
Date	6-26-12

EPA Form 7610-16 (rev. 12-03)

Approved: June 2, 2015 • Modified: [September 27, 2016](#)

Acid Rain - Page 4

Harrison Power Station Plant Name (from Step 1)	+
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Step 3,
Cont'd.

Liability, Cont'd.

- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

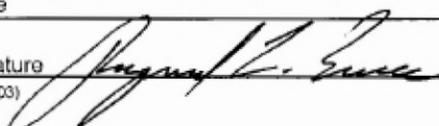
- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 4

Read the
certification
statement,
sign, and
date

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Raymond L. Evans, Designated Representative	
Name	
Signature	
Date	6-26-12

EPA Form 7610-16 (rev. 12-03)



United States
 Environmental Protection Agency
 Acid Rain Program

OMB No. 2060-0258

Phase II NO_x Averaging Plan

For more information, see instructions and refer to 40 CFR 76.11

Page 1

This submission is: New Revised

Page 1 of 1

STEP 1

Identify the units participating in this averaging plan by plant name, State, and boiler ID# from NADB. In column (a), fill in each unit's applicable emission limitation from 40 CFR 76.5, 76.6, or 76.7. In column (b), assign an alternative contemporaneous annual emissions limitation (ACEL) in lb/mmBtu to each unit. In column (c), assign an annual heat input limitation in mmBtu to each unit. Continue to page 3 if necessary.

Plant Name	State	ID#	(a) Emission Limitation	(b) ACEL	(c) Annual Heat Input Limit
Albright	WV	1	0.50	0.68	8,357,000
Albright	WV	2	0.50	0.46	509,000
Albright	WV	3	0.45	0.40	2,589,000
Armstrong	PA	1	0.50	0.40	2,979,000
Armstrong	PA	2	0.50	0.40	2,983,000
Fort Martin	WV	1	0.45	0.35	21,000,000
Fort Martin	WV	2	0.68	0.35	20,300,000
Harrison	WV	1	0.50	0.42	28,100,000
Harrison	WV	2	0.50	0.42	34,100,000

STEP 2

Use the formula to enter the Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan and the Btu-weighted annual average emission rate for the same units if they are operated in compliance with 40 CFR 76.5, 76.6, or 76.7. The former must be less than or equal to the latter.

Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan

0.48

$$\frac{\sum_{i=1}^n (R_{Li} \times HI_i)}{\sum_{i=1}^n HI_i}$$

Btu-weighted annual average emission rate for same units operated in compliance with 40 CFR 76.5, 76.6 or 76.7

0.57

$$\frac{\sum_{i=1}^n [R_{Li} \times HI_i]}{\sum_{i=1}^n HI_i}$$

≤

Where,

- R_{Li} = Alternative contemporaneous annual emission limitation for unit i, in lb/mmBtu, as specified in column (b) of Step 1;
- R_{Li} = Applicable emission limitation for unit i, in lb/mmBtu, as specified in column (a) of Step 1;
- HI_i = Annual heat input for unit i, in mmBtu, as specified in column (c) of Step 1;
- n = Number of units in the averaging plan

EPA Form 7610-29 (3-97)

Approved: June 2, 2015 • Modified: September 27, 2016

Albright, Armstrong, Ft. Martin, Harman, Hatfield's Ferry, Mitchell,
 Pleasant, Riverdale, R. Paul Smith, Willow Island
 Plant Name (from Step 1)

NO_x Averaging - Page 2

STEP 3

Mark one of the two options and enter dates.

This plan is effective for calendar year _____ through calendar year _____ unless notification to terminate the plan is given.

Treat this plan as identical plans, each effective for one calendar year for the following calendar years: 2013, 2014, 2015, 2016 and 2017 unless notification to terminate one or more of these plans is given.

STEP 4

Read the special provisions and certification, enter the name of the designated representative, and sign and date.

Special Provisions

Emission Limitations

Each affected unit in an approved averaging plan is in compliance with the Acid Rain emission limitation for NO_x under the plan only if the following requirements are met:

- (i) For each unit, the unit's actual annual average emission rate for the calendar year, in lb/mmBtu, is less than or equal to its alternative contemporaneous annual emission limitation in the averaging plan, and
- (a) For each unit with an alternative contemporaneous emission limitation less stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year does not exceed the annual heat input limit in the averaging plan,
- (b) For each unit with an alternative contemporaneous emission limitation more stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year is not less than the annual heat input limit in the averaging plan, or
- (ii) If one or more of the units does not meet the requirements of (i), the designated representative shall demonstrate, in accordance with 40 CFR 76.11(d)(1)(i)(A) and (B), that the actual Btu-weighted annual average emission rate for the units in the plan is less than or equal to the Btu-weighted annual average rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations in 40 CFR 76.5, 76.6, or 76.7.
- (iii) If there is a successful group showing of compliance under 40 CFR 76.11(d)(1)(i)(A) and (B) for a calendar year, then all units in the averaging plan shall be deemed to be in compliance for that year with their alternative contemporaneous emission limitations and annual heat input limits under (i).

Liability

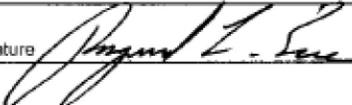
The owners and operators of a unit governed by an approved averaging plan shall be liable for any violation of the plan or this section at that unit or any other unit in the plan, including liability for fulfilling the obligations specified in part 77 of this chapter and sections 113 and 411 of the Act.

Termination

The designated representative may submit a notification to terminate an approved averaging plan, in accordance with 40 CFR 72.40(d), no later than October 1 of the calendar year for which the plan is to be terminated.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Raymond L. Evans, Designated Representative	
Signature 	Date 6-26-12

EPA Form 7610-29 (3-97)

Approved: June 2, 2015 • Modified: September 27, 2016

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