

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF IOWA
CEDAR RAPIDS DIVISION

UNITED STATES OF AMERICA,

Plaintiff,

AND

THE STATE OF IOWA,

AND

THE COUNTY OF LINN, IOWA

AND

SIERRA CLUB

Plaintiff-Intervenors,

v.

INTERSTATE POWER AND LIGHT COMPANY,

Defendant.

Civil Action No.: C15-0061

CONSENT DECREE

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APPENDIX A -- ENVIRONMENTAL MITIGATION PROJECTS

WHEREAS, Plaintiff, the United States of America (“United States”), on behalf of the United States Environmental Protection Agency (“EPA”), is concurrently filing a Complaint and this Consent Decree, for injunctive relief and civil penalties pursuant to Sections 113(b) and 167 of the Act 42 U.S.C. §§ 7413(b) and 7477, alleging that Interstate Power and Light Company (“Defendant”), violated the Prevention of Significant Deterioration (“PSD”) provisions of Part C of Subchapter I of the Act, 42 U.S.C. §§ 7470-7492, the requirements of Title V of the Act, 42 U.S.C. §§ 7661-7661f, and the federally enforceable Iowa State Implementation Plan (“Iowa SIP”);

WHEREAS, in the Complaint, the United States alleges, *inter alia*, that Defendant made major modifications to major emitting facilities, and failed to obtain the necessary permits and install and operate the controls necessary under the Act to reduce sulfur dioxide (“SO₂”), oxides of nitrogen (“NO_x”), and/or particulate matter (“PM”), at certain electricity generating stations located in Iowa, and that such emissions damage human health and the environment;

WHEREAS, EPA provided Defendant and the State of Iowa with actual notice pertaining to Defendant’s alleged violations, in accordance with Sections 113(a)(1) and (b) of the Act, 42 U.S.C. § 7413(a)(1) and (b);

WHEREAS, Defendant stipulates that it does not contest the adequacy of the notice provided;

WHEREAS, Plaintiffs the State of Iowa, the County of Linn, and the Sierra Club have filed Complaints or Complaints in Intervention, joining the claims alleged by the United States and asserting their own claims;

WHEREAS, in their Complaints, the United States, the State of Iowa, the County of Linn, and the Sierra Club (collectively, “Plaintiffs”) allege claims upon which relief can be granted against the Defendant under Sections 113, 167, and 304 of the Act, 42 U.S.C. §§ 7413, 7477, and 7604;

WHEREAS, the Plaintiffs and Defendant (collectively, the “Parties”) have agreed that settlement of these actions is in the best interests of the Parties and in the public interest, and that entry of this Consent Decree without further litigation is the most appropriate means of resolving these matters;

WHEREAS, the Parties anticipate that the installation and operation of pollution control equipment and practices pursuant to this Consent Decree, and the Retirement, Refueling, or Repowering of certain facilities required by this Consent Decree, will achieve significant reductions of SO₂, NO_x, and PM emissions and improve air quality;

WHEREAS, the Parties have agreed, and this Court by entering this Consent Decree finds, that this Consent Decree has been negotiated in good faith and at arm’s length and that this Consent Decree is fair, reasonable, in the public interest, and consistent with the goals of the Act;

WHEREAS, the Defendant has cooperated in the resolution of these matters;

WHEREAS, the Defendant denies the violations alleged in 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 Consent Decree solely to avoid the costs and uncertainties of litigation and to improve the environment; and nothing herein shall constitute an admission of liability; and

WHEREAS, the Parties have consented to entry of this Consent Decree without trial of any issues;

NOW, THEREFORE, without any admission of fact or law, 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, and pursuant to Sections 113, 167, and 304 of the Act, 42 U.S.C. §§ 7413, 7477, and 7604. Venue is proper in the Northern District of Iowa pursuant to Sections 113(b) and 304(c) of the Act, 42 U.S.C. §§ 7413(b) and 7604(c), and 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, the Defendant waives all objections and defenses that it may have to the Court's jurisdiction over this action, to the sufficiency of any pre-suit notices required by Section 113 or 304 of the Act, to the Court's jurisdiction over the Defendant, and to venue in this district. The Defendant 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 or obligations of any party other than the Parties to this Consent Decree. Except as provided in Section XXVI (Public Comment/Agency Review) of this Consent Decree, the Parties consent to entry of this Consent Decree without further notice. Notwithstanding the foregoing, should this Consent Decree not be entered by this Court, then the waivers and consents set forth in this Section I (Jurisdiction and Venue) shall be null and void and of no effect.

II. APPLICABILITY

2. Upon entry, the provisions of this Consent Decree shall apply to and be binding upon the United States, the State of Iowa, Linn County, and upon the Sierra Club and the Defendant and their respective successors and assigns or other entities or persons otherwise bound by law.

3. Defendant shall provide a copy of this Consent Decree to all vendors, suppliers, consultants, contractors, agents, and other entities 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, Defendant shall ensure that all work it is required to undertake is performed in accordance with the requirements of this Consent Decree. In any action to enforce this Consent Decree, except as expressly provided herein (*e.g.*, Section XV Force Majeure), Defendant shall not assert as a defense the failure of its officers, directors, employees, servants, agents, or contractors to take actions necessary to comply with this Consent Decree.

III. DEFINITIONS

4. Every term expressly defined by this Section shall have the meaning given that term herein. Every other term used in this Consent Decree that is also a term used under the Act or in a regulation implementing the Act, including regulations approved as part of the Iowa SIP, shall mean in this Consent Decree what such term means under the Act or those regulations.

5. A “12-Month Rolling Average Emission Rate” shall be determined by calculating an arithmetic average of all hourly emission rates in lb/mmBTU for the current month and all hourly emission rates in lb/mmBTU for the previous 11 Unit Operating Months. A new 12-

Month Rolling Average Emission Rate shall be calculated for each new complete month in accordance with the provisions of this Consent Decree. Each 12-Month Rolling Average Emission Rate shall include all emissions of the applicable pollutant that occur during all periods of operation, including startup, shutdown, and Malfunction. For purposes of calculating a “12-Month Rolling Average Emission Rate,” a “Unit Operating Month” means any month during which a Unit fires Fossil Fuel.

6. A “30-Day Rolling Average Emission Rate” for a Unit shall be determined by calculating an arithmetic average of all hourly emission rates in lb/mmBTU for the current Unit Operating Day and all hourly emission rates in lb/mmBTU for the previous 29 Unit Operating Days. A new 30-Day Rolling Average Emission Rate shall be calculated for each new Unit Operating Day. Each 30-Day Rolling Average Emission Rate shall include all emissions of the applicable pollutant that occur during all periods within any Unit Operating Day, including emissions from startup, shutdown, and Malfunction.

7. A “24-Hour Rolling Average Emission Rate” for a Unit shall be determined by calculating an arithmetic average of the current Unit Operating Hour emission rate in lb/mm BTU and the previous 23 Unit Operating Hours. A new 24-Hour Rolling Average Emission Rate shall be calculated for each new Unit Operating Hour. Each 24-Hour Rolling Average Emission Rate for PM shall include all emissions that occur during all periods of operation, including startup, shutdown, and Malfunction.

8. “Baghouse” means a full stream (fabric filter or membrane) particulate emissions control device on the main boilers.

9. “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.

10. “Burlington” means solely for purposes of this Consent Decree, the Burlington Generating Station consisting of one coal-fired boiler designated as Unit 1 (212 MW), which is located in Des Moines County, Iowa.

11. “Capital Expenditures” means all capital expenditures, as defined by Generally Accepted Accounting Principles (“GAAP”), as those principles exist at the Date of Entry of this Consent Decree, excluding the cost of installing or upgrading pollution control devices.

12. “CEMS” or “Continuous Emission Monitoring System,” means, for obligations involving the monitoring of NO_x, SO₂, and PM emissions 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 60 and 40 C.F.R. Part 75.

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

14. “Consent Decree” means this Consent Decree and the Appendix hereto, which is incorporated into the Consent Decree.

15. “Continuously Operate” or “Continuous Operation” means that when a pollution control technology or combustion control is required to be continuously used at a Unit pursuant to this Consent Decree (including, but not limited to, SCR, DFGD, ESP, Baghouse, or Low NO_x

Combustion System), it shall be operated at all times such Unit is in operation (except as otherwise provided by Section XV (Force Majeure)), consistent with the technological limitations, manufacturers' specifications, good engineering and maintenance practices, and good air pollution control practices for minimizing emissions (as defined in 40 C.F.R. § 60.11(d)) for such equipment and the Unit.

16. "Date of Entry" means the date this Consent Decree is entered by the Court or a motion to enter the Consent Decree is granted, whichever occurs first, as recorded on the Court's docket.

17. "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 Northern District of Iowa.

18. "Day" means calendar day unless otherwise specified in this Consent Decree.

19. "Defendant" means Interstate Power and Light Company.

20. "Dry Flue Gas Desulfurization" or "Dry FGD" or "DFGD" means an add-on air pollution control system for the reduction of SO₂ located downstream of a boiler that sprays an alkaline sorbent slurry in one or more absorber vessels designed to provide intimate contact between an alkaline slurry and the flue gas stream to react with and remove SO₂ from the exhaust stream forming a dry powder material which is captured in a downstream particulate control device.

21. "Dubuque" means solely for purposes of this Consent Decree, the Dubuque Generating Station consisting of three Fossil-Fuel-fired boilers designated as Unit 1 (38 MW), Unit 5 (29 MW), and Unit 6 (15 MW), which is located in Dubuque County, Iowa.

22. “Electrostatic Precipitator” or “ESP” means a device for removing particulate matter from combustion gases by imparting an electric charge to the particles and then attracting them to a metal plate or screen of opposite charge before the combustion gases are exhausted to the atmosphere.

23. “Emission Rate” for a given pollutant means the number of pounds of that pollutant emitted per million British thermal units of heat input (lb/mmBTU), measured in accordance with this Consent Decree.

24. “Environmental Mitigation Projects” or “Projects” means the projects set forth in Section IX (Environmental Mitigation Projects) and Appendix A of this Consent Decree, and any other project undertaken for the purpose of fulfilling Defendant’s obligations under Section IX and Appendix A and approved for that purpose by EPA pursuant to Section XIII (Review and Approval of Submittals).

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

26. “Fossil Fuel” means any hydrocarbon fuel, including but not limited to coal, metallurgical coke, petroleum coke, petroleum oil, natural gas, or any other fuel made or derived from the foregoing.

27. “Flue Gas Recirculation” or “FGR” means extracting a portion of the flue gas and returning it to the steam generating unit firebox. FGR reduces the oxygen concentration in the combustion air by using oxygen depleted flue gas as a portion of the combustion air and thereby reduces the combustion temperature, resulting in lower NO_x emissions.

28. “Greenhouse Gases” means the air pollutant defined at 40 C.F.R. § 86.1818-12(a) as of the Date of Lodging of this Consent Decree as the aggregate group of six greenhouse gases:

carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. This definition continues to apply even if 40 C.F.R. § 86.1818-12(a) is subsequently revised, stayed, vacated, or otherwise modified.

29. “Iowa SIP” means the Iowa State Implementation Plan, and any amendments thereto, as approved by EPA pursuant to Section 110 of the Act, 42 U.S.C. § 7410.

30. “Improved Unit” for NO_x means a System Unit equipped with an SCR or scheduled under this Consent Decree to be equipped with an SCR. Lansing Unit 4 and Ottumwa Unit 1 are Improved Units for NO_x.

31. “Improved Unit” for SO₂ means a System Unit scheduled under this Consent Decree to be equipped with a DFGD. Lansing Unit 4 and Ottumwa Unit 1 are Improved Units for SO₂. Units that are Refueled or Repowered are also Improved Units for SO₂.

32. “Interstate” means Defendant, Interstate Power and Light Company, the operator and the owner or co-owner of the Burlington, Dubuque, Lansing, M.L. Kapp, Ottumwa, Prairie Creek, Sixth Street, and Sutherland Generating Stations.

33. “kW” means Kilowatt or one thousand watts.

34. “Lansing” means solely for purposes of this Consent Decree, the Lansing Generating Station consisting of four coal-fired boilers designated as Unit 1 (15 MW), Unit 2 (12 MW), Unit 3 (38 MW), and Unit 4 (275 MW), which is located in Allamakee County, Iowa. Lansing Unit 1, Lansing Unit 2, and Lansing Unit 3 no longer operate and the construction permits for Units 1, 2, and 3 have been revoked.

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

36. “Low NO_x Combustion System” means burners and associated combustion air control equipment, including Overfire Air (if installed at the Unit), which control mixing characteristics of Fossil Fuel and oxygen, thus restraining the formation of NO_x during combustion of fuel in the boiler.

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

38. “M.L. Kapp” means solely for purposes of this Consent Decree, the Milton L. Kapp Generating Station consisting of two coal-fired boilers designated as Unit 1 (19 MW) and Unit 2 (219 MW), which is located in Clinton County, Iowa. M.L. Kapp Unit 1 no longer operates and has been removed from the Title V operating permit for M.L. Kapp.

39. “Natural Gas” means natural gas received directly or indirectly through a connection to an interstate pipeline.

40. “Neural Network” means an artificial intelligence technology that utilizes measured combustion and operational parameters, identifies optimal set points and in conjunction with the distributed control system implements sophisticated control strategies to optimize performance and reduce emissions.

41. “Netting” shall mean the process of determining whether a particular physical change or change in the method of operation of a major stationary source results in a “net emissions increase,” as that term is defined at 40 C.F.R. §§ 51.165(a)(1)(vi), 52.21(b)(3)(i), and in the Iowa SIP.

42. “NO_x” means oxides of nitrogen.

43. “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 established under the Clean Air Act or applicable State Implementation Plan; provided, however, that with respect to any such program that first applies to emissions occurring after December 31, 2011, a “NO_x Allowance” shall include an allowance created and allocated under such program only for control periods starting on or after the fourth anniversary of the Date of Entry of this Consent Decree.

44. “Nonattainment NSR” means the new source review program within the meaning of Part D of Subchapter I of the Act, 42 U.S.C. §§ 7501-7515 and 40 C.F.R. Part 51, and corresponding provisions of the federally enforceable Iowa SIP.

45. “Operational Interest” means part or all of Defendant’s right to be the operator (as that term is used and interpreted under the Act) of any Unit.

46. “Ownership Interest” with respect to a Unit means part or all of Defendant’s legal or equitable ownership interest in any Unit.

47. “Other Unit” means any Unit within the System that is not an Improved Unit for the pollutant in question.

48. “Ottumwa” means solely for purposes of this Consent Decree, the Ottumwa Generating Station consisting of one coal-fired boiler designated as Unit 1 (726 MW), which is located in Wapello County, Iowa.

49. “Over-Fire Air” or “OFA” means an in-furnace staged combustion control to reduce NO_x emissions.

50. “Parties” means the United States of America on behalf of EPA; the State of Iowa; Linn County, Iowa; the Sierra Club; and the Defendant. “Party” means one of the named “Parties.”

51. “PM” means total filterable particulate matter, measured in accordance with the provisions of this Consent Decree.

52. “PM CEMS” or “PM Continuous Emission Monitoring System” means, for obligations involving the monitoring of PM emissions under this Consent Decree, the equipment that samples, analyzes, measures, and provides, by readings taken at frequent intervals, an electronic and/or paper record of PM emissions.

53. “PM Control Device” means any device, including an ESP or Baghouse, which reduces emissions of PM. Where a Unit is equipped with both an ESP and a Baghouse, the Baghouse, and not the ESP, shall be considered the PM Control Device for that Unit.

54. “PM Emission Rate” means the number of pounds of PM emitted per million BTU of heat input (lb/mmBTU).

55. “Prairie Creek” means solely for purposes of this Consent Decree, the Prairie Creek Generating Station consisting of four coal-fired boilers designated as boiler 1 (heat input of 245 mmBTU/hr), boiler 2 (heat input of 304 mmBTU/hr), Unit 3 (50 MW), and Unit 4 (149 MW), which is located in Linn County, Iowa.

56. “Prairie Creek Annual Tonnage Limitation” for a pollutant means the sum of the tons of the pollutant emitted from all the Units at Prairie Creek including, without limitations, all tons of that pollutant emitted during periods of startup, shutdown, and Malfunction, in the designated year.

57. “Prevention of Significant Deterioration” or “PSD” means the new source review program within the meaning of Part C of Subchapter I of the Clean Air Act, 42 U.S.C. §§ 7470-7492 and 40 C.F.R. Part 52, and corresponding provisions of the federally enforceable Iowa SIP.

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

59. “Refuel” or “Refueled” means that a Unit is Refueled to Natural Gas within the meaning of this Consent Decree.

60. “Refuel to Natural Gas” or “Refueled to Natural Gas” means, solely for purposes of this Consent Decree, the modification of a Unit such that the modified unit generates electricity solely through the combustion of Natural Gas. A Refueled unit must achieve and maintain the applicable Emission Rate specified in Section IV (Requirement to Retire, Refuel, or Repower Units). Nothing herein shall prevent the reuse of any equipment at any existing unit or new emissions unit, provided that Defendant applies for, and obtains, all required permits, including, if applicable, a PSD or Nonattainment NSR permit.

61. “Repower” or “Repowered” means, solely for purposes of this Consent Decree, the removal and replacement of the Unit components such that the replaced unit generates electricity solely through the combustion of Natural Gas through the use of a combined cycle combustion turbine technology. Nothing herein shall prevent the reuse of any equipment at any

existing unit or new emissions unit, provided that the Unit Owner(s) applies for, and obtains, all required permits, including, if applicable, a PSD or Nonattainment NSR permit.

62. “Retire,” “Retired,” or “Retirement” means to permanently shut down a Unit such that the Unit cannot physically or legally burn Fossil Fuel, and to comply with applicable state and federal requirements for permanently ceasing operation of the Unit as a Fossil Fuel-fired electric generating Unit, including removing the Unit from Iowa’s air emissions inventory, and amending all applicable permits so as to reflect the permanent shutdown status of such Unit. The Defendant can choose to not retire and to continue to operate such a Unit only if it is Refueled or Repowered within the meaning of this Consent Decree, and Defendant obtains any and all required CAA permit(s) for the Refueled or Repowered Unit, including but not limited to an appropriate permit pursuant to CAA Subchapter I, Parts C and D, and pursuant to the applicable Iowa SIP provisions implementing CAA Subchapter I.

63. “SCR” or “Selective Catalytic Reduction” means a pollution control device for reducing NO_x emissions through the use of selective catalytic reduction technology.

64. “Sixth Street” means solely for purposes of this Consent Decree, the Sixth Street Generating Station which consisted of five coal-fired boilers designated as Unit 1 (10 MW), Unit 2 (18 MW), Unit 3 (17 MW), Unit 4 (17 MW), and Unit 5 (32 MW), and which was located in Linn County, Iowa. Sixth Street no longer operates and its Title V permit has been rescinded.

65. “SO₂” means sulfur dioxide.

66. “SO₂ Allowance” means an authorization to emit a specified amount of SO₂ that is allocated or issued under an emissions trading or marketable permit program of any kind established under the Clean Air Act or applicable State Implementation Plan; provided, however,

that with respect to any such program that first applies to emissions occurring after December 31, 2011, a “SO₂ Allowance” shall include an allowance created and allocated under such program only for control periods starting on or after the fourth anniversary of the Date of Entry of this Consent Decree.

67. “State” means the State of Iowa.

68. “Super-Compliant Allowance” means a NO_x Allowance or SO₂ Allowance attributable to reductions beyond the requirements of this Consent Decree, as described in Paragraphs 110 and 134.

69. “Surrender” or “Surrender of Allowances” means, for purposes of SO₂ or NO_x Allowances, permanently surrendering allowances from the accounts administered by EPA and the State of Iowa, if applicable, so that such allowances can never be used thereafter to meet any compliance requirements under the CAA, a state implementation plan, or this Consent Decree.

70. “Sutherland” means solely for purposes of this Consent Decree, the Sutherland Generating Station consisting of three Fossil-Fuel-fired boilers designated as Unit 1 (38 MW), Unit 2 (38 MW), and Unit 3 (82 MW), which is located in Marshall County, Iowa. Sutherland Unit 2 no longer operates and has been removed from the Title V operating permit for Sutherland.

71. “System” means collectively, and solely for purposes of this Consent Decree, the Burlington, Dubuque, Lansing, M.L. Kapp, Ottumwa, Prairie Creek, Sixth Street, and Sutherland Generating Stations.

72. “System-Wide Annual Tonnage Limitation” for a pollutant means the sum of the tons of the pollutant emitted from all the Units in Defendant’s System including, without

limitations, all tons of that pollutant emitted during periods of startup, shutdown, and Malfunction, in the designated year.

73. “Title V Permit” means the permit required of major sources pursuant to Subchapter V of the Act, 42 U.S.C. §§ 7661-7661e.

74. “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 and systems necessary for production of electricity. An electric steam generating station may be comprised of one or more Units.

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

76. “Unit Operating Hour” means each clock hour during which any Fossil Fuel is combusted at any time in the Unit.

77. “Working Day” means a day other than a Saturday, Sunday, or Federal Holiday. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or Federal Holiday, the period shall run until the close of business on the next Working Day.

IV. REQUIREMENT TO RETIRE, REFUEL, OR REPOWER UNITS

78. Defendant has ceased operations at Lansing Unit 1, Lansing Unit 2, Lansing Unit 3, M.L. Kapp Unit 1, Sutherland Unit 2, Sixth Street Unit 1, Sixth Street Unit 2, Sixth Street Unit 3, Sixth Street Unit 4, and Sixth Street Unit 5. Upon entry of this Consent Decree, the permanent Retirement of these units shall also become an enforceable obligation under this Consent Decree, such that Defendant may operate such a Unit only if it is first Repowered within the meaning of

this Consent Decree, and Defendant obtains any and all required CAA permit(s) for the Repowered Unit, including but not limited to an appropriate permit pursuant to CAA Subchapter I, Parts C and D, and pursuant to the applicable Iowa SIP provisions implementing CAA Subchapter I.

79. By no later than the Date of Entry of this Consent Decree, Defendant shall Refuel Dubuque Unit 1, Dubuque Unit 5, Dubuque Unit 6, Sutherland Unit 1, and Sutherland Unit 3. Defendant shall thereafter cease burning coal and shall only operate Dubuque Unit 1, Dubuque Unit 5, Dubuque Unit 6, Sutherland Unit 1, and Sutherland Unit 3 as Refueled Units.

80. By no later than June 1, 2019, Defendant shall either Retire or Repower Dubuque Unit 1. If Defendant Repowers Dubuque Unit 1, Defendant shall apply for, and obtain, all required CAA permits, including but not limited to an appropriate permit pursuant to CAA Subchapter I, Parts C and D, and pursuant to the applicable Iowa SIP provisions implementing CAA Subchapter I.

81. By no later than June 1, 2019, Defendant shall either Retire or Repower Dubuque Unit 5. If Defendant Repowers Dubuque Unit 5, Defendant shall apply for, and obtain, all required CAA permits, including but not limited to an appropriate permit pursuant to CAA Subchapter I, Parts C and D, and pursuant to the applicable Iowa SIP provisions implementing CAA Subchapter I.

82. By no later than June 1, 2019, Defendant shall either Retire or Repower Dubuque Unit 6. If Defendant Repowers Dubuque Unit 6, Defendant shall apply for, and obtain, all required CAA permits, including but not limited to an appropriate permit pursuant to CAA

Subchapter I, Parts C and D, and pursuant to the applicable Iowa SIP provisions implementing CAA Subchapter I.

83. By no later than June 1, 2019, Defendant shall either Retire or Repower Sutherland Unit 1. If Defendant Repowers Sutherland Unit 1, Defendant shall apply for, and obtain, all required CAA permits, including but not limited to an appropriate permit pursuant to CAA Subchapter I, Parts C and D, and pursuant to the applicable Iowa SIP provisions implementing CAA Subchapter I.

84. By no later than June 1, 2019, Defendant shall either Retire or Repower Sutherland Unit 3. If Defendant Repowers Sutherland Unit 3, Defendant shall apply for, and obtain, all required CAA permits, including but not limited to an appropriate permit pursuant to CAA Subchapter I, Parts C and D, and pursuant to the applicable Iowa SIP provisions implementing CAA Subchapter I.

85. By no later than August 31, 2015, Defendant shall Retire or Refuel M.L. Kapp Unit 2. If Defendant Refuels M.L. Kapp Unit 2, Defendant shall thereafter Continuously Operate the Low NO_x Combustion System at the Refueled Unit, and shall obtain any and all required CAA permit(s) for the Refueled Unit, including but not limited to an appropriate permit pursuant to CAA Subchapter I, Parts C and D, and pursuant to the applicable Iowa SIP provisions implementing CAA Subchapter I.

86. By no later than December 31, 2021, Defendant shall Retire or Refuel Burlington Unit 1. If Defendant Refuels Burlington Unit 1, Defendant shall thereafter Continuously Operate the Low NO_x Combustion System at the Refueled Unit, and shall obtain any and all required CAA permit(s) for the Refueled Unit, including but not limited to an appropriate permit pursuant

to CAA Subchapter I, Parts C and D, and pursuant to the applicable Iowa SIP provisions implementing CAA Subchapter I.

87. By no later than June 1, 2018, Defendant shall Retire or Refuel Prairie Creek Unit 4. If Defendant Refuels Prairie Creek Unit 4, Defendant shall thereafter Continuously Operate the Low NO_x Combustion System at the Refueled Unit, and shall obtain any and all required CAA permit(s) for the Refueled Unit, including but not limited to an appropriate permit pursuant to CAA Subchapter I, Parts C and D, and pursuant to the applicable Iowa SIP provisions implementing CAA Subchapter I.

88. Beginning in calendar year 2021 and continuing until the boilers are Retired or Refueled pursuant to this Consent Decree, Defendant shall only operate Prairie Creek boilers 1 and/or 2 during times when the boilers are required to serve steam supply needs pursuant to steam supply contracts in effect as of December 31, 2013. Defendant may cogenerate electricity during such times, but the boilers and turbines will not be dispatched to meet electricity demand unless the boilers and turbines are also required to meet steam supply needs pursuant to a steam supply contract in effect as of December 31, 2013.

89. By no later than December 31, 2025, Defendant shall Retire or Refuel Prairie Creek boiler 1, Prairie Creek boiler 2, and Prairie Creek Unit 3. If Defendant Refuels Prairie Creek boiler 1, Prairie Creek boiler 2, and/or Prairie Creek Unit 3, Defendant shall obtain any and all required CAA permit(s) for such Refueled Unit, including but not limited to an appropriate permit pursuant to CAA Subchapter I, Parts C and D, and pursuant to the applicable Iowa SIP provisions implementing CAA Subchapter I. In the case of a Refueled Prairie Creek

Unit 3, Defendant shall also thereafter Continuously Operate the Low NO_x Combustion System at Prairie Creek Unit 3.

V. NO_x EMISSION REDUCTIONS AND CONTROLS

A. Operation and Performance NO_x Requirements at Lansing Unit 4

90. Commencing no later than January 31, 2015 and continuing to December 30, 2015, Defendant shall Continuously Operate the existing SCR at Lansing Unit 4 so that the Unit achieves and maintains a 30-Day Rolling Average Emission Rate for NO_x of no greater than 0.090 lb/mmBTU.

91. Commencing no later than December 31, 2015, and continuing thereafter, Defendant shall Continuously Operate the existing SCR at Lansing Unit 4 so that the Unit achieves and maintains a 30-Day Rolling Average Emission Rate for NO_x of no greater than 0.080 lb/mmBTU.

B. Installation, Operation, and Performance NO_x Requirements at Ottumwa Unit 1

92. Commencing no later than 60 Days after the Date of Entry of this Consent Decree, Defendant shall Continuously Operate the Low NO_x Combustion System at Ottumwa Unit 1 so that the Unit achieves and maintains (a) a 30-Day Rolling Average Emission Rate for NO_x of no greater than 0.210 lb/mmBTU, and (b) a 12-Month Rolling Average Emission Rate for NO_x of no greater than 0.160 lb/mmBTU.

93. Defendant shall install an SCR (or alternate equivalent NO_x control technology approved pursuant to Paragraph 94) at Ottumwa Unit 1 on or before December 31, 2019. Commencing on December 31, 2019, and continuing thereafter, Defendant shall Continuously Operate the SCR (or alternate equivalent NO_x control technology approved

pursuant to Paragraph 94). Commencing no later than 30 Operating Days after December 31, 2019, Defendant shall Continuously Operate the SCR (or alternate equivalent NO_x control technology approved pursuant to Paragraph 94) so that Ottumwa Unit 1 achieves and maintains a 30-Day Rolling Average Emission Rate for NO_x of no greater than 0.080 lb/mmBTU.

94. With prior written request to the Plaintiffs and written approval from EPA (after consultation with the other Plaintiffs), Defendant may, in lieu of installing and operating SCR at Ottumwa Unit 1, install and operate an Alternate Equivalent NO_x Control Technology that achieves at Ottumwa Unit 1 a 30-Day Rolling Average Emission Rate for NO_x of no greater than 0.080 lb/mmBTU. For purposes of this Paragraph, Alternate Equivalent NO_x Control Technology shall mean a technology designed to achieve an equivalent NO_x control efficiency as can be achieved by an SCR. If Defendant elects to request approval of an Alternate Equivalent NO_x Control Technology under this Paragraph, Defendant shall provide the written request required by this Paragraph to Plaintiffs by no later than December 31, 2016. Plaintiffs will use best efforts to review any such request expeditiously to meet the requirements of this Consent Decree.

C. Interim Operation and Performance NO_x Requirements at Remaining Units That Must Be Retired or Refueled

95. Commencing no later than 60 Days after the Date of Entry of this Consent Decree, and continuing until the Unit is Retired or Refueled pursuant to Section IV (Requirement to Retire, Refuel, or Repower Units), Defendant shall Continuously Operate the Low NO_x Combustion System, at M.L. Kapp Unit 2 so that the Unit achieves and maintains a 12-Month Rolling Average Emission Rate for NO_x of no greater than 0.150 lb/mmBTU.

96. Commencing no later than 60 Days after the Date of Entry of this Consent Decree, and continuing until the Unit is Retired or Refueled pursuant to Section IV (Requirement to Retire, Refuel, or Repower Units), Defendant shall Continuously Operate the Low NO_x Combustion System at Burlington Unit 1 so that the Unit achieves and maintains a 12-Month Rolling Average Emission Rate for NO_x of no greater than 0.180 lb/mmBTU.

97. Commencing no later than 60 Days after the Date of Entry of this Consent Decree, and continuing until the boiler is Retired or Refueled pursuant to Section IV (Requirement to Retire, Refuel, or Repower Units), Defendant shall operate Prairie Creek boiler 1 so that it achieves and maintains an Emission Rate for NO_x of no greater than 0.600 lb/mmBTU based on a 3-hour average.

98. Commencing no later than 60 Days after the Date of Entry of this Consent Decree, and continuing until the boiler is Retired or Refueled pursuant to Section IV (Requirement to Retire, Refuel, or Repower Units), Defendant shall operate Prairie Creek boiler 2 so that it achieves and maintains an Emission Rate for NO_x of no greater than 0.600 lb/mmBTU based on a 3-hour average.

99. Commencing no later than 60 Days after the Date of Entry of this Consent Decree, and continuing until the Unit is Retired or Refueled pursuant to Section IV (Requirement to Retire, Refuel, or Repower Units), Defendant shall Continuously Operate the Low NO_x Combustion System at Prairie Creek Unit 3 so that the Unit achieves and maintains a 12-Month Rolling Average Emission Rate for NO_x of no greater than 0.400 lb/mmBTU.

100. Commencing no later than 60 Days after the Date of Entry of this Consent Decree, and continuing until the Unit is Retired or Refueled pursuant to Section IV (Requirement

to Retire, Refuel, or Repower Units), Defendant shall Continuously Operate the Low NO_x Combustion System at Prairie Creek Unit 4 so that the Unit achieves and maintains a 12-Month Rolling Average Emission Rate for NO_x of no greater than 0.400 lb/mmBTU.

D. Prairie Creek Annual Tonnage Limitations for NO_x

101. For each calendar year as specified below, Defendant shall not exceed the corresponding Prairie Creek Annual Tonnage Limitation for NO_x specified below:

For the Calendar Year Specified Below	Prairie Creek Annual Tonnage Limitation for NO_x
Each calendar year from 2015 through 2018	3,250 tons per year
Each calendar year from 2019 through 2025	2,650 tons per year
2026 and continuing each calendar year thereafter	1,500 tons per year

E. System-Wide Annual Tonnage Limitations for NO_x

102. For each calendar year as specified below, Defendant's System shall not exceed the corresponding System-Wide Annual Tonnage Limitation for NO_x specified below:

For the Calendar Year Specified Below	System-Wide Annual Tonnage Limitation for NO_x
Each calendar year from 2015 through 2017	11,500 tons per year
Each calendar year from 2018 through 2019	10,500 tons per year
2020	7,500 tons per year
2021	7,250 tons per year
2022 and continuing each calendar year thereafter	6,800 tons per year

F. Monitoring of NO_x Emissions

103. Except as provided for in Section V.J, in determining a 30-Day Rolling Average Emission Rate for NO_x or a 12-Month Rolling Average Emission Rate for NO_x, Defendant shall use NO_x emission data obtained from a CEMS in accordance with the procedures of 40 C.F.R. Part 75, except that NO_x emissions data need not be bias adjusted and the missing data

substitution procedures of 40 C.F.R. Part 75 shall not apply to such determinations. Diluent capping (*i.e.*, 5% CO₂) will be applied to the NO_x emission rate for any hours where the measured CO₂ concentration is less than 5% following the procedures in 40 C.F.R. Part 75, Appendix F, Section 3.3.4.1.

104. Except as provided for in Section V.J, for purposes of determining compliance with any System-Wide Annual Tonnage Limitation and Prairie Creek Annual Tonnage Limitation for NO_x, Defendant shall use NO_x emission data obtained from a CEMS in accordance with the procedures specified in 40 C.F.R. Part 75.

G. Use and Surrender of NO_x Allowances

105. Except as may be necessary to comply with Section XIV (Stipulated Penalties), Defendant shall not use NO_x Allowances to comply with any requirement of this Consent Decree, including by claiming compliance with any emission limitation required by this Consent Decree by using, tendering, or otherwise applying NO_x Allowances to offset any excess emissions.

106. Except as provided in this Consent Decree, and specifically in Paragraphs 107 and 108, beginning in calendar year 2015 and continuing each calendar year thereafter, Defendant shall not sell, bank, trade, or transfer its interest in any NO_x Allowances allocated to Units in the System.

107. Beginning in calendar year 2015, and continuing each calendar year thereafter, Defendant shall Surrender all NO_x Allowances allocated to the Units in the System for that calendar year that Defendant does not need to meet federal and/or state CAA regulatory requirements for the System Units.

108. Nothing in this Consent Decree shall prevent Defendant from purchasing or otherwise obtaining NO_x Allowances from another source for purposes of complying with federal and/or state CAA regulatory requirements to the extent otherwise allowed by law.

109. The requirements of this Consent Decree pertaining to Defendant's use and Surrender of NO_x Allowances are permanent and are not subject to any termination provision of this Consent Decree.

H. Super-Compliant NO_x Allowances

110. Notwithstanding Paragraphs 106 and 107, in each calendar year beginning in 2015, and continuing thereafter, Defendant may sell, bank, use, trade, or transfer NO_x Allowances allocated to the Units in the System that are made available in that calendar year solely as a result of:

- a. the installation and operation of any NO_x air pollution control equipment that is not otherwise required under this Consent Decree, and is not otherwise required by law;
- b. the use of an SCR prior to the date established by this Consent Decree; or
- c. achievement and maintenance of an Emission Rate below an applicable 30-Day Rolling Average Emission Rate or 12-Month Rolling Average Emission Rate for NO_x;

provided that Defendant is also in compliance for that calendar year with all emission limitations for NO_x set forth in this Consent Decree. Defendant shall timely report the generation of such Super-Compliant Allowances in accordance with Section XII (Periodic Reporting) of this Consent Decree.

I. Method for Surrender of NO_x Allowances

111. Defendant shall Surrender, or transfer to a non-profit third-party selected by Defendant for Surrender, all NO_x Allowances required to be Surrendered pursuant to Paragraph 107 by June 30 of the immediately following calendar year. If any NO_x Allowances required to be Surrendered under this Consent Decree are transferred directly to a non-profit third-party, Defendant shall include a description of such transfer in the next report submitted to EPA pursuant to Section XII (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 third periodic report due after the transfer of any NO_x Allowances, Defendant 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 112 within one year after the Defendant transferred the NO_x Allowances to them. The Defendant 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.

112. For all NO_x Allowances required to be Surrendered, Defendant shall, with respect to the NO_x Allowances that the Defendant is to Surrender, ensure that a NO_x Allowance transfer request form is first submitted 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. Such NO_x Allowance transfer requests may be made in an electronic manner using the EPA's Clean Air Markets Division Business System, or similar system provided by EPA. As part of submitting these transfer requests, Defendant shall ensure that the transfer of its NO_x Allowances are irrevocably authorized and that the source and location of the NO_x Allowances being Surrendered are identified by name of account and any applicable serial or other identification numbers or station names.

J. Annual NO_x Stack Tests for Prairie Creek Boilers 1 and 2

113. Commencing in calendar year 2015, for Prairie Creek boilers 1 and 2 only, Defendant shall ensure that a stack test is conducted on each boiler every four operating quarters. An "operating quarter," for the purpose of this Paragraph, is any calendar quarter during which a boiler operates 168 hours or more. If testing is unable to be completed in the fourth operating quarter, due to unforeseen circumstances, it shall be completed within 720 Unit Operating Hours once the boiler returns to service.

114. To determine compliance with the NO_x Emission Rates established in Paragraphs 97 and 98, the Prairie Creek Annual Tonnage Limitation for NO_x established in Paragraph 101, and the System-Wide Annual Tonnage Limitation for NO_x established in Paragraph 102 of this Consent Decree, the Defendant shall ensure that EPA Method 7 or any alternate method approved by EPA under the terms of this Consent Decree, is employed during the stack testing required by Paragraph 113. Each stack test shall consist of three separate runs performed under representative operating conditions, not including periods of startup, shutdown, or Malfunction. The results of each NO_x stack test shall be submitted to Plaintiffs by Defendant within 60 days of

completion of each test. For purpose of calculating calendar-year NO_x mass emissions, for inclusion in the Annual Tonnage Limitations in Paragraphs 101 and 102, Defendant shall multiply the NO_x rate, as determined from the last performed reference method test, by the respective heat input for each unit for that calendar year. Heat input shall be calculated by multiplying the amount of each fuel combusted by its respective gross heating value, and summed for all fuels combusted in each boiler.

VI. SO₂ EMISSION REDUCTIONS AND CONTROLS

A. Installation, Operation, and Performance SO₂ Requirements at Lansing Unit 4 and Ottumwa Unit 1

115. Defendant shall install and commence Continuous Operation of a DFGD at Ottumwa Unit 1 by no later than December 31, 2015.

116. Commencing no later than 30 Operating Days after December 31, 2015, and continuing thereafter, Defendant shall Continuously Operate a DFGD at Ottumwa Unit 1 so that the Unit achieves and maintains a 30-Day Rolling Average Emission Rate for SO₂ of no greater than 0.075 lb/mmBTU.

117. Defendant shall install and commence Continuous Operation of a DFGD at Lansing Unit 4 by no later than December 31, 2016.

118. Commencing no later than 30 Operating Days after December 31, 2016, and continuing thereafter, Defendant shall Continuously Operate a DFGD at Lansing Unit 4 so that the Unit achieves and maintains a 30-Day Rolling Average Emission Rate for SO₂ of no greater than 0.075 lb/mmBTU.

B. Interim Operation and Performance SO₂ Requirements at Remaining Units or Boilers That Must Be Retired or Refueled

119. Commencing no later than 60 Days after the Date of Entry of this Consent Decree, and continuing until the Unit is Retired or Refueled pursuant to Section IV (Requirement to Retire, Refuel, or Repower Units), Defendant shall operate M.L. Kapp Unit 2 so that the Unit achieves and maintains a 12-Month Rolling Average Emission Rate for SO₂ of no greater than 0.750 lb/mmBTU.

120. Commencing no later than 60 Days after the Date of Entry of this Consent Decree, and continuing until the Unit is Retired or Refueled pursuant to Section IV (Requirement to Retire, Refuel, or Repower Units), Defendant shall operate Burlington Unit 1 so that the Unit achieves and maintains a 12-Month Rolling Average Emission Rate for SO₂ of no greater than 0.750 lb/mmBTU.

121. Commencing no later than January 1, 2016, and continuing until the boiler is Retired or Refueled pursuant to Section IV (Requirement to Retire, Refuel, or Repower Units), Defendant shall operate Prairie Creek boiler 1 and Prairie Creek boiler 2 so that they achieve and maintain a combined Emission Rate for SO₂ of no greater than 0.900 lb/mmBTU, based on a 12-Month rolling average, including emissions during all periods of operation, including startup, shutdown, and Malfunction. Because Prairie Creek boiler 1 and Prairie Creek boiler 2 exhaust to a common stack, the Emission Rate calculation for the two boilers shall be measured and calculated for the two boilers together as if they were a single boiler (*e.g.*, the Emissions Rate calculation will be based on the total SO₂ emissions and heat input for the two boilers together measured at the stack). A violation of any such 12-Month rolling average Emission Rate shall be considered to be two violations, unless Defendant establishes that the violation is due solely to

the mal-performance of one of the two units. A dispute under this paragraph shall be subject to the Dispute Resolution provisions of Section XVI.

122. Commencing no later than January 1, 2016, Defendant may only burn in Prairie Creek boiler 1 and Prairie Creek boiler 2 Powder River Basin (“PRB”) or equivalent fuel containing \leq (less than or equal to) 1.00 lb/mmBTU SO₂.

123. Commencing no later than 60 Days after the Date of Entry of this Consent Decree, and continuing until the Unit is Retired or Refueled pursuant to Section IV (Requirement to Retire, Refuel, or Repower Units), Defendant shall operate Prairie Creek Unit 3 so that the Unit achieves and maintains a 12-Month Rolling Average Emission Rate for SO₂ of no greater than 0.700 lb/mmBTU.

124. Commencing no later than 60 Days after the Date of Entry of this Consent Decree, and continuing until the Unit is Retired or Refueled pursuant to Section IV (Requirement to Retire, Refuel, or Repower Units), Defendant shall operate Prairie Creek Unit 4 so that the Unit achieves and maintains a 12-Month Rolling Average Emission Rate for SO₂ of no greater than 0.700 lb/mmBTU.

C. Prairie Creek Annual Tonnage Limitations for SO₂

125. For each calendar year as specified below, Defendant shall not exceed the corresponding Prairie Creek Annual Tonnage Limitation for SO₂ specified below:

For the Calendar Year Specified Below	Prairie Creek Annual Tonnage Limitation for SO₂
Each calendar year from 2016 through 2018	5,500 tons per year
Each calendar year from 2019 to 2020	3,500 tons per year
Each calendar year from 2021 through 2025	3,000 tons per year
2026 and continuing each calendar year thereafter	100 tons per year

D. System-Wide Annual Tonnage Limitations for SO₂

126. For each calendar year as specified below, Defendant's System shall not exceed the corresponding System-Wide Annual Tonnage Limitation for SO₂ specified below:

For the Calendar Year Specified Below	System-Wide SO₂ Cap
2015	39,000 tons per year
2016	23,500 tons per year
Each calendar year from 2017 through 2018	14,100 tons per year
Each calendar year from 2019 through 2020	12,000 tons per year
2021	11,000 tons per year
Each calendar year from 2022 through 2025	6,000 tons per year
2026 and continuing each calendar year thereafter	3,250 tons per year

E. Monitoring of SO₂ Emissions

127. In determining a 30-Day Rolling Average Emission Rate for SO₂ or a 12-Month Rolling Average Emission Rate for SO₂, Defendant shall use SO₂ emission data obtained from a CEMS in accordance with the procedures of 40 C.F.R. Part 75, except that SO₂ emissions data need not be bias adjusted and the missing data substitution procedures of 40 C.F.R. Part 75 shall not apply to such determinations. Diluent capping (i.e., 5% CO₂) will be applied to the SO₂ Emission Rate for any hours where the measured CO₂ concentration is less than 5% following the procedures in 40 C.F.R. Part 75, Appendix F, Section 3.3.4.1.

128. For purposes of determining compliance with any System-Wide Annual Tonnage Limitation and Prairie Creek Annual Tonnage Limitation for SO₂, Defendant shall use SO₂ emission data obtained from a CEMS in accordance with the procedures specified in 40 C.F.R. Part 75. Once a Unit is Refueled, SO₂ emissions shall be calculated using methods set forth in USEPA document AP-42 or by use of a stack test emission factor.

F. Use and Surrender of SO₂ Allowances

129. Except as may be necessary to comply with Section XIV (Stipulated Penalties), Defendant shall not use SO₂ Allowances to comply with any requirement of this Consent Decree, including by claiming compliance with any emission limitation required by this Consent Decree by using, tendering, or otherwise applying SO₂ Allowances to offset any excess emissions.

130. Except as provided in this Consent Decree, and specifically in Paragraphs 131 and 132, beginning in calendar year 2015 and continuing each calendar year thereafter, Defendant shall not sell, bank, trade, or transfer its interest in any SO₂ Allowances allocated to Units in the System.

131. Beginning in calendar year 2015, and continuing each calendar year thereafter, Defendant shall Surrender all SO₂ Allowances allocated to the Units in the System for that calendar year that are not needed to meet federal and/or state CAA regulatory requirements for the System Units.

132. Nothing in this Consent Decree shall prevent Defendant from purchasing or otherwise obtaining SO₂ Allowances from another source for purposes of complying with federal and/or state CAA regulatory requirements to the extent otherwise allowed by law.

133. The requirements of this Consent Decree pertaining to Defendant's use and Surrender of SO₂ Allowances are permanent and are not subject to any termination provision of this Consent Decree.

G. Super-Compliant SO₂ Allowances

134. Notwithstanding Paragraphs 130 and 131, in each calendar year beginning in 2013, and continuing thereafter, Defendant may sell, bank, use, trade, or transfer SO₂

Allowances allocated to the Units in the System that are made available in that calendar year solely as a result of:

- a. the installation and operation of any SO₂ air pollution control equipment that is not otherwise required under this Consent Decree, and is not otherwise required by law;
- b. the use of DFGD prior to the date established by this Consent Decree; or
- c. achievement and maintenance of an Emission Rate below an applicable 30-Day Rolling Average Emission Rate or 12-Month Rolling Average Emission Rate for SO₂;

provided that Defendant is also in compliance for that calendar year with all emission limitations for SO₂ set forth in this Consent Decree. Defendant shall timely report the generation of such Super-Compliant Allowances in accordance with Section XII (Periodic Reporting) of this Consent Decree.

H. Method for Surrender of SO₂ Allowances.

135. Defendant shall Surrender, or transfer to a non-profit third-party selected by Defendant for Surrender, all SO₂ Allowances required to be Surrendered pursuant to Paragraph 131 by June 30 of the immediately following calendar year. If any SO₂ Allowances required to be Surrendered under this Consent Decree are transferred directly to a non-profit third-party, Defendant shall include a description of such transfer in the next report submitted to EPA pursuant to Section XII (Periodic Reporting) of this Consent Decree. Such report shall: (a) identify the non-profit third-party recipient(s) of the SO₂ Allowances and list the serial numbers of the transferred SO₂ 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 SO₂ Allowances and will not use any of the SO₂ Allowances to meet any obligation imposed by any environmental law. No later than the third periodic report due after the transfer of any SO₂ Allowances, Defendant 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 136 within one year after the Defendant transferred the SO₂ Allowances to them. Defendant 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.

136. For all SO₂ Allowances required to be Surrendered, Defendant shall, with respect to the SO₂ Allowances that the Defendant is to Surrender, ensure that an SO₂ Allowance transfer request form is first submitted 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. Such SO₂ Allowance transfer requests may be made in an electronic manner, using the EPA's Clean Air Act Markets Division Business System, or similar system provided by EPA. As part of submitting these transfer requests, Defendant shall ensure that the transfer of its SO₂ Allowances are irrevocably authorized and that the source and location of the SO₂ Allowances being Surrendered are identified – by name of account and any applicable serial or other identification numbers and station names.

VII. PM EMISSION REDUCTIONS AND CONTROLS

A. Optimization of ESPs and Baghouses

137. By no later than 90 Days from the Date of Entry of this Consent Decree, and continuing thereafter, Defendant shall Continuously Operate each PM Control Device on each Unit or boiler in Defendant's System to maximize PM emission reductions at all times when the Unit or boiler is in operation. Notwithstanding the foregoing sentence in this Paragraph, Defendant is not required to Continuously Operate an ESP on any Unit or boiler if a Baghouse is installed and operating to replace the PM Control Device function of the ESP at that Unit or boiler. Except as required during correlation testing under 40 C.F.R. Part 60, Appendix B, Performance Specification 11, and Quality Assurance Requirements under Appendix F, Procedure 2, as required by this Consent Decree, Defendant shall, at a minimum, ensure that to the extent reasonably practicable: (a) where the PM Control Device is an ESP, each section of each ESP is fully energized, and where the PM Control Device is a Baghouse, each compartment, except for any compartment specifically designated and designed as a spare compartment, of each Baghouse remains operational; (b) any failed ESP section or Baghouse compartment is repaired at the next planned outage (or unplanned outage of sufficient length); (c) the automatic control systems on each ESP are operated to maximize PM collection efficiency, where applicable; (d) each opening in the casings, ductwork, and expansion joints for each ESP and each Baghouse is inspected and repaired during the next planned Unit or boiler outage (or unplanned outage of sufficient length) to minimize air leakage; (e) the power levels delivered to each ESP are maintained, where applicable, consistent with manufacturers' specifications, the operational design of the Unit or boiler, and good engineering practices; (f)

the plate-cleaning and discharge-electrode-cleaning systems for each ESP are optimized, where applicable, by varying the cycle time, cycle frequency, rapper-vibrator intensity, and number of strikes per cleaning event; and (g) for each Unit or boiler with one or more Baghouses, a bag leak detection program is developed and implemented to ensure that leaking bags are promptly replaced.

138. Once a Unit or boiler has been Refueled or Repowered, the provisions of this Section VII shall no longer be applicable to that Unit or boiler.

B. Operation and Performance Requirements for PM Controls at Lansing Unit 4 and Ottumwa Unit 1

139. Defendant shall install and commence Continuous Operation of a Baghouse at Ottumwa Unit 1 by no later than December 31, 2015.

140. Commencing no later than 30 Operating Days after December 31, 2015, and continuing thereafter, Defendant shall Continuously Operate a Baghouse at Ottumwa Unit 1 so that the Unit achieves and maintains a filterable PM Emission Rate of no greater than 0.015 lb/mmBTU based on a 24-Hour Rolling Average Emission Rate determined by PM CEMS.

141. Defendant shall install and commence Continuous Operation of a Baghouse at Lansing Unit 4 by no later than December 31, 2016.

142. Commencing no later than 30 Operating Days after December 31, 2016, and continuing thereafter, Defendant shall Continuously Operate a Baghouse at Lansing Unit 4 so that the Unit achieves and maintains a filterable PM Emission Rate of no greater than 0.015 lb/mmBTU based on a 24-Hour Rolling Average Emission Rate determined by PM CEMS.

143. Notwithstanding the PM Emission Rate requirements for Lansing Unit 4 and Ottumwa Unit 1, Defendant may operate such Units to achieve a filterable PM Emission Rate of

no greater than 0.030 lb/mmBTU during periods of level 3 (high range) correlation testing under PS-11, Section 8.6(4), provided that such correlation testing is conducted in accordance with the procedures approved by EPA as part of the correlation plan required by Paragraph 151.

C. Interim Operation and Performance PM Requirements at Remaining Units That Must Be Retired or Refueled

144. Commencing no later than 180 Operating Days after the Date of Entry of this Consent Decree, and continuing until the Unit is Retired or Refueled pursuant to Section IV (Requirement to Retire, Refuel, or Repower Units), Defendant shall Continuously Operate the Electrostatic Precipitator at Burlington Unit 1 so that the Unit achieves and maintains a filterable PM Emission Rate of no greater than 0.030 lb/mmBTU based on a 30-Day Rolling Average Emission Rate as determined by CEMS.

145. Commencing no later than 90 Operating Days after the Date of Entry of this Consent Decree, and continuing until the boiler is Retired or Refueled pursuant to Section IV (Requirement to Retire, Refuel, or Repower Units), Defendant shall Continuously Operate the Electrostatic Precipitator at Prairie Creek boiler 1 and Prairie Creek boiler 2 so that the boilers achieve and maintain a filterable PM Emission Rate of no greater than 0.030 lb/mmBTU based on a 30-Day Rolling Average Emission Rate as determined by CEMS. Because Prairie Creek boiler 1 and Prairie Creek boiler 2 exhaust to a common stack, the Emission Rate calculation for the two boilers shall be measured and calculated for the two boilers together as if they were a single boiler (*e.g.*, the Emissions Rate calculation will be based on the total filterable PM emissions and heat input for the two boilers together measured at the stack). A violation of any such 30-Day rolling average Emission Rate shall be considered to be two violations, unless Defendant establishes that the violation is due solely to the mal-performance of one of the two

units. A dispute under this paragraph shall be subject to the Dispute Resolution provisions of Section XVI.

146. Commencing no later than 90 Operating Days after the Date of Entry of this Consent Decree, and continuing until the Unit is Retired or Refueled pursuant to Section IV (Requirement to Retire, Refuel, or Repower Units), Defendant shall Continuously Operate the Electrostatic Precipitator at Prairie Creek Unit 3 so that the Unit achieves and maintains a filterable PM Emission Rate of no greater than 0.030 lb/mmBTU based on a 30-Day Rolling Average Emission Rate as determined by CEMS.

147. Commencing no later than 90 Operating Days after the Date of Entry of this Consent Decree, and continuing until the Unit is Retired or Refueled pursuant to Section IV (Requirement to Retire, Refuel, or Repower Units), Defendant shall Continuously Operate the Electrostatic Precipitator at Prairie Creek Unit 4 so that the Unit achieves and maintains a filterable PM Emission Rate of no greater than 0.030 lb/mmBTU based on a 30-Day Rolling Average Emission Rate as determined by CEMS.

D. Annual PM Stack Tests

148. Defendant shall be subject to the following stack test requirements:

(a) Commencing in calendar year 2015, and continuing annually thereafter for Prairie Creek boiler 1 and Prairie Creek boiler 2 until such time as the certified PM CEMS for these boilers are operational pursuant to Subsection VII.E. Defendant shall ensure that a stack test for PM is conducted on each boiler every four operating quarters pursuant to Paragraph 149, unless the Unit or boiler is Retired or Refueled by December 31 of the prior calendar year, at which point this requirement shall no longer apply.

(b) Commencing in calendar year 2015, and continuing annually thereafter for Burlington Unit 1, Prairie Creek Unit 3, Prairie Creek Unit 4, Lansing Unit 4 and Ottumwa Unit 1 until such time as the certified PM CEMS for these Units are operational pursuant to Subsection VII.E, Defendant shall ensure that a stack test for PM is conducted on each boiler at least once every four operating quarters pursuant to Paragraph 149.

(c) Commencing once the certified PM CEMS are operational pursuant to Subsection VII.E, condensable PM testing as set forth in Paragraph 149(b) shall be performed each time a relative correlation audit is performed for the PM-CEMS, and stack sampling for filterable PM shall be performed pursuant to PS-11.

(d) An “operating quarter,” for the purpose of this Paragraph, is any calendar quarter during which a boiler operates 168 hours or more. If testing is unable to be completed in the fourth operating quarter, due to unforeseen circumstances, it shall be completed within 720 Unit Operating Hours once the boiler returns to service.

149. When stack tests are required pursuant to Paragraph 148, Defendant shall (a) conduct the PM stack test using EPA Method 5 (filterable portion only), or any alternate method approved by EPA under the terms of this Consent Decree, and (b) conduct a PM stack test for condensable PM using the reference methods and procedures set forth at 40 C.F.R. Part 51, Appendix M, Method 202. Each stack test shall consist of three separate runs performed under representative operating conditions not including periods of startup, shutdown, or Malfunction. The sampling time for each run shall be at least 60 minutes and the volume of each run shall be at least 0.85 dry standard cubic meters (30 dry standard cubic feet). Defendant shall ensure that the PM Emission Rate from the stack test results is calculated in accordance with 40 C.F.R. §

60.8(f). The results of each PM stack test shall be submitted to Plaintiffs by the Defendant within 60 Days of completion of each test. Defendant shall submit such results to EPA via EPA's Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through EPA's Central Data Exchange (CDX) (http://cdx.epa.gov/epa_home.asp). Test data shall be submitted in a file format generated through the use of the EPA's Electronic Reporting Tool (ERT) (<http://www.epa.gov/ttn/chief/ert/index.html>) or in an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.

E. PM Continuous Emissions Monitoring Systems ("CEMS")

150. By no later than December 31, 2015, Defendant shall ensure that PM CEMS are installed, correlated, maintained, and operating on Burlington Unit 1, Lansing Unit 4, Ottumwa Unit 1, Prairie Creek Unit 3, and Prairie Creek Unit 4. By no later than July 1, 2016, Defendant shall ensure that PM CEMS are installed, correlated, maintained, and operating on the combined stack of Prairie Creek boiler 1 and Prairie Creek boiler 2. The PM CEMS shall comprise a continuous particle mass monitor measuring filterable particulate matter concentration, directly or indirectly, on an hourly average basis and a diluent monitor used to convert the concentration to units expressed in lb/mmBTU. The PM CEMS installed at each Unit must be appropriate for the anticipated stack conditions and capable of measuring filterable PM concentrations on an hourly average basis. Defendant shall maintain, in an electronic database that maintains data for at least five years, the hourly average emission values of all PM CEMS in lb/mmBTU. Except for periods of monitor Malfunction, maintenance, or repair, Defendant shall operate the PM CEMS at all times when the Unit it serves is operating.

151. By no later than June 30, 2015 for Burlington Unit 1, Lansing Unit 4, Ottumwa Unit 1, Prairie Creek Unit 3, and Prairie Creek Unit 4, and the combined stack of Prairie Creek boiler 1 and Prairie Creek boiler 2, Defendant shall submit to EPA for review and approval pursuant to Section XIII (Review and Approval of Submittals) of this Consent Decree a plan for the installation and correlation of the PM CEMS.

152. By no later than September 30, 2015 for Burlington Unit 1, Lansing Unit 4, Ottumwa Unit 1, Prairie Creek Unit 3, and Prairie Creek Unit 4, and by December 31, 2015 for the combined stack of Prairie Creek boiler 1 and Prairie Creek boiler 2, Defendant shall submit to EPA for review and approval pursuant to Section XIII (Review and Approval of Submittals) of this Consent Decree a proposed Quality Assurance/Quality Control (“QA/QC”) protocol that shall be followed for the PM CEMS.

153. In developing both the plan for installation and correlation of the PM CEMS and the QA/QC protocol, Defendant shall use the criteria set forth in 40 C.F.R. Part 60, Appendix B, Performance Specification 11, and 40 C.F.R. Part 60, Appendix F, Procedure 2. With respect to relative correlation audits, Defendant must conduct such audits no less frequently than once every three calendar years or 12 operating quarters, whichever comes first, or earlier if the characteristics of the PM or gas change such that the PM CEMS measurement technology is no longer valid. For each Unit at which Defendant installs, certifies, operates, and maintains a PM CEMS, Defendant may use the correlation method specified in 40 C.F.R. § 63.10010(i) (at the temperature specified in 40 C.F.R. Part 60, Appendix A-3) for purposes of correlating the PM CEMS under this Consent Decree. Diluent capping (*i.e.*, 5% CO₂) will be applied to the PM rate data for any hours where the measured CO₂ concentration is less than 5% following the

procedures in 40 C.F.R. Part 75, Appendix F, Section 3.3.4.1. Following EPA's approval of the plan described in Paragraph 151 and the QA/QC protocol described in Paragraph 152, Defendant shall thereafter operate the PM CEMS in accordance with the approved plan and QA/QC protocol.

154. Defendant shall ensure that performance specification tests on the PM CEMS are conducted, and shall ensure compliance with the PM CEMS installation and correlation plans submitted to and approved by EPA in accordance with Paragraphs 151 and 152 is demonstrated. The PM CEMS shall be operated in accordance with the approved plan and QA/QC protocol. Pursuant to Section XII (Periodic Reporting), the data recorded by the PM CEMS during Unit operation, expressed in lb/mmBTU on a 24-Hour Rolling Average or 30-Day Rolling Average, shall be reported to Plaintiffs pursuant to Section XII (Periodic Reporting).

155. When the Defendant submits the applications for amendment to the Title V Permits pursuant to Paragraph 224, those applications shall include a Compliance Assurance Monitoring ("CAM") plan, under 40 C.F.R. Part 64, for the PM Emission Rates in this Section VII. The PM CEMS required under Paragraph 150 may be used in that CAM plan.

156. 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. 8,314 (Feb. 24, 1997)), or monitoring requirements of 40 C.F.R. Part 70, concerning the use of data for any purpose under the Act.

VIII. PROHIBITION ON NETTING CREDITS OR OFFSETS

157. Except as provided in Paragraph 158, emission reductions that result from actions to be taken by Defendant 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 CAA's Nonattainment NSR and PSD programs, and shall not be used in any way to determine whether or not a project would result in either a "significant emissions increase" or a "significant net emissions increase" under the Nonattainment NSR and PSD programs.

158. The limitations on the generation and use of Netting credits and offsets set forth in the previous Paragraph do not apply to emission reductions achieved by a particular System Unit that are greater than those required under this Consent Decree for that particular System Unit. For purposes of this Paragraph, emission reductions from a System Unit are greater than those required under this Consent Decree if they result from such Unit's compliance with federally-enforceable emission limits that are more stringent than those limits imposed on the Unit under this Consent Decree and under applicable provisions of the CAA or the Iowa SIP.

159. Nothing in this Consent Decree is intended to preclude the emission reductions generated under this Consent Decree from being considered by the applicable state regulatory agency or EPA for the purpose of attainment demonstrations submitted pursuant to § 110 of the Act, 42 U.S.C. § 7410, or in determining impacts on National Ambient Air Quality Standards, PSD increment, or air quality related values, including visibility, in a Class I area.

IX. ENVIRONMENTAL MITIGATION PROJECTS

160. Defendant shall implement the Environmental Mitigation Projects (“Projects”) described in Appendix A to this Consent Decree in compliance with the approved plans and schedules for such Projects and other terms of this Consent Decree. In implementing the Projects, Defendant shall spend no less than \$6,000,000 in Project Dollars. Defendant shall not include its own personnel costs in overseeing the implementation of the Projects as Project Dollars.

161. The Projects described in Appendix A to be performed by Defendant shall be for the purpose of beneficially restoring and/or mitigating the environments that Plaintiffs allege were damaged by the operation of Defendant’s Units, including environments allegedly damaged within the Defendant’s service territory.

162. Defendant shall maintain, and present to Plaintiffs upon request, documents to substantiate the Project Dollars expended to implement the Defendant’s Projects described in Appendix A, and shall provide these documents to Plaintiffs within 60 Days of a request for the documents.

163. All plans and reports prepared by Defendant pursuant to the requirements of this Section IX of the Consent Decree and required to be submitted to Plaintiffs shall be publicly available (subject to the provisions of Paragraph 230 of this Consent Decree) from Defendant without charge in paper or electronic format.

164. Defendant shall certify, as part of each plan submitted to Plaintiffs for any Project, that Defendant is not otherwise required by law to perform the Project described in the plan, that Defendant is unaware of any other person who is required by law to perform the

Project, and that Defendant will not use any Project, or portion thereof, to satisfy any obligations that it may have under other applicable requirements of law, including but not limited to any applicable renewable or energy efficiency portfolio standards.

165. Defendant shall use good faith efforts to secure as much environmental benefit as possible for the Project Dollars it expends, consistent with the applicable requirements and limits of this Consent Decree.

166. If Defendant elects (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 Defendant, but not including Defendant's 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 Defendant contributes the funds. Regardless of whether Defendant elects (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, Defendant acknowledges that it will receive credit for the expenditure of such funds as Project Dollars only if the Defendant demonstrates that the funds have been actually spent by either the Defendant or by the person or instrumentality receiving them, and that such expenditures met all requirements of this Consent Decree.

167. Defendant shall comply with the reporting requirements described in Appendix A.

168. Within 90 Days following the completion of each Project required under this Consent Decree (including any applicable periods of demonstration or testing), the Defendant shall submit to the Plaintiffs a report that documents the date that the Project was completed, Defendant's results of implementing the Project, including the emission reductions or other

environmental benefits achieved, and the Project Dollars expended by the Defendant in implementing the Project.

X. CIVIL PENALTY

169. Within 30 Days after the Date of Entry of this Consent Decree, Defendant shall pay to the United States, the State of Iowa, and Linn County a civil penalty in the amount of \$1,100,000 as follows:

- (a) Defendant shall pay a civil penalty of \$733,333 to the United States. The civil penalty to the United States shall be paid by Electronic Funds Transfer (“EFT”) to the United States Department of Justice, in accordance with current EFT procedures provided to Defendant by the Financial Litigation Unit of the U.S. Attorney’s Office for the Northern District of Iowa. The costs of such EFT shall be Defendant’s responsibility. Any funds received after 2:00 p.m. EDT shall be credited on the next Working Day. At the time of payment, Defendant shall provide notice of payment, referencing DOJ Case Number 90-5-2-1-10594 and the civil action case name and case number assigned to the United States’ enforcement action in this case, to the Department of Justice and to EPA in accordance with Section XIX (Notices) of this Consent Decree;
- (b) Defendant shall pay a civil penalty of \$244,444 to the State of Iowa. Payment shall be made by certified check made payable to the State of Iowa and sent to David S. Steward, Assistant Attorney General, Environmental Law Division, Lucas State Office Building, 321 E. 12th Street, Room 018, Des Moines, Iowa 50319.

(c) Defendant shall pay a civil penalty of \$122,223 to Linn County. Payment shall be made by certified check made payable to Linn County, Iowa and sent to Lisa Epp, Assistant Linn County Attorney, Civil Division, 935 2nd Street SW, Cedar Rapids, Iowa 52404.

170. Failure to timely pay the civil penalty shall subject Defendant 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 Defendant 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.

171. Payments made pursuant to this Section are penalties within the meaning of Section 162(f) of the Internal Revenue Code, 26 U.S.C. § 162(f), and are not tax-deductible expenditures for purposes of federal law.

XI. RESOLUTION OF CLAIMS

A. Resolution of Civil Claims

172. Claims of the United States, the State of Iowa, and the County of Linn Based on Modifications Occurring Before the Date of Lodging of this Consent Decree. Entry of this Consent Decree shall resolve all civil claims of the United States, the State of Iowa, and the County of Linn against the Defendant that arose from any modifications commenced at any System Unit prior to the Date of Lodging of this Consent Decree, including but not limited to those modifications alleged in the Complaint filed in this civil action, under any or all of: (a) Part C or D of Subchapter I of the CAA, 42 U.S.C. §§ 7470-7492, 7501-7515, and the implementing PSD and Nonattainment NSR provisions of the Iowa SIP; (b) Section 111 of the CAA, 42 U.S.C. § 7411, and 40 C.F.R. § 60.14; and (c) Title V of the CAA, 42 U.S.C. §§ 7661-7661f, but only to

the extent that such Title V claims are based on Defendant's failure to obtain an operating permit that reflects applicable requirements imposed under Part C or D of Subchapter I of the CAA.

173. Claims of the United States Based on Modifications after the Date of Lodging of this Consent Decree. Except as provided below, entry of this Consent Decree also shall resolve all civil claims of the United States that arise from a modification commenced before December 31, 2019, for pollutants regulated under Part C or D of Subchapter I of the CAA and under regulations, which are promulgated thereunder as of the Date of Lodging, where:

- a. such modification is commenced at Burlington Unit 1, Dubuque Unit 1, Dubuque Unit 5, Dubuque Unit 6, Lansing Unit 4, M.L. Kapp Unit 2, Ottumwa Unit 1, Prairie Creek Unit 1, Prairie Creek Unit 2, Prairie Creek Unit 3, Prairie Creek Unit 4, Sutherland Unit 1, or Sutherland Unit 3 after the Date of Lodging of this Consent Decree, or
- b. such modification is one this Consent Decree expressly directs Defendant to undertake.

The term "modification" as used in this Paragraph shall have the meaning that term is given under the CAA, the Iowa SIP, and under the regulations in effect as of the Date of Lodging of this Consent Decree. The claims resolved by this Paragraph shall not include claims based on modifications for Greenhouse Gases and sulfuric acid mist.

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

175. Claims of the Sierra Club.

- a. Entry of this Consent Decree shall resolve all civil claims of the Sierra Club, and the Sierra Club hereby releases all claims it made or could have made against the Defendant that arose, directly or indirectly, from any modifications commenced at any System Unit prior to the Date of Lodging of this Consent Decree, including but not limited to those set forth in the complaint in this civil action and related to the System Units, under any or all of: (a) Part C or D of Subchapter I of the CAA, 42 U.S.C. §§ 7470-7492, 7501-7515, and the implementing PSD and Nonattainment NSR provisions of the Iowa SIP; (b) Section 111 of the CAA, 42 U.S.C. § 7411, and 40 C.F.R. Section 60.14; and (c) Title V of the CAA, 42 U.S.C. §§ 7661-7661f.
- b. Entry of this Consent Decree shall also resolve all civil claims of the Sierra Club against the Defendant, known or unknown, as to the System Units that arose, directly or indirectly, from violations of opacity standards, carbon monoxide under 42 U.S.C. § 7412, under the Iowa SIP, or any federally-enforceable air pollution control permit through the Date of Lodging of this Consent Decree at any System Unit.
- c. Sierra Club further agrees that it will not pursue Best Available Control Technology or Lowest Achievable Emission Rate limits or New Source Review applicability determinations related to the System Units in any administrative action now pending or contemplated for modifications made prior to the Date of Lodging of this Consent Decree through any filing with a court, any

administrative adjudication, or any formal comments submitted to any governmental entity.

- d. Sierra Club further agrees not to file a legal challenge, including any lawsuit or any petition for a contested case hearing, or take a litigation position or submit comments to any governmental agency in any public forum challenging or criticizing Defendant's request(s) for rate recovery for the costs incurred in achieving compliance with the Consent Decree and/or the issuance of any permits or other regulatory approvals necessary for the construction of any environmental control equipment or Environmental Mitigation Project(s) required by the Consent Decree, except as provided in the section of the Consent Decree concerning dispute resolution. Sierra Club further agrees not to provide legal assistance by any Sierra Club staff, contract with any outside counsel to provide legal assistance, or fund any third parties in any legal challenge, including any lawsuit or any petition for a contested case hearing, or in any proceeding before any public regulatory entity challenging or criticizing the Defendant's request(s) for rate recovery for the costs incurred in achieving compliance with the Consent Decree and/or the issuance of any permits or other regulatory approvals necessary for the construction of any environmental control equipment or Environmental Mitigation Project(s) required by the Consent Decree.
- e. Entry of this Consent Decree also shall resolve all civil claims of the Sierra Club related to the System Units that arise from a modification commenced before December 31, 2019, pursuant to (1) Part C or D of the Act or 42 U.S.C. § 7411,

(2) the Title V program, 42 U.S.C. §§ 7661-7661d, (3) emissions standards or limitations in the existing Iowa SIP, or (4) hazardous air pollutant standard in effect or proposed as of the date of the entry of this Consent Decree and that is promulgated pursuant to 42 U.S.C. § 7412. The future claims resolved by this Paragraph shall not include claims based on modifications that increase Greenhouse Gases or sulfuric acid mist emissions.

- f. Any dispute as to Paragraph 175 is subject to the Dispute Resolution provisions of this Consent Decree, including the written notice and right to cure provisions. Any remedy arising from commitments of Sierra Club pursuant to this Consent Decree is limited to equitable relief (*i.e.*, specific performance) and shall not include monetary damages.

176. Claims of the State of Iowa and Linn County Arising after the Date of Lodging of this Consent Decree.

- a. The State of Iowa and Linn County expressly do not join in giving the Defendant the covenant provided by the United States and Sierra Club in paragraphs 173 and 175(e) of this Consent Decree, do not release any claims under the CAA and its implementing regulations arising after the Date of Lodging of this Consent Decree, and reserves their rights, if any, to bring any actions against Defendant for any claims arising after the Date of Lodging of this Consent Decree.
- b. Notwithstanding paragraph 176(a), the State of Iowa and Linn County release the Defendant from any civil claims that may arise under the CAA and its

implementing regulations for Defendant's performance of activities that this Consent Decree expressly directs the Defendant to undertake.

B. Pursuit of Civil Claims Otherwise Resolved by Subsection A

177. Bases for Pursuing Resolved Claims for the System. If: Defendant i) violates a System-Wide Annual Tonnage Limitation for SO₂ or NO_x; or ii) fails by more than 90 Days to Retire, Refuel, or Repower a Unit as required by this Consent Decree; or iii) fails by more than 90 Days to install, upgrade, or commence Continuous Operation of any emission control device required pursuant to this Consent Decree; or iv) fails by more than 90 Days to achieve any Emission Rate or other obligation or limitation required pursuant to this Consent Decree; then the United States may pursue any claim at any System Unit that is otherwise resolved under Subsection XI.A. (Resolution of Civil Claims), subject to subparagraphs a. and b. below.

- a. For any claims based on modifications undertaken at an Other Unit (*i.e.*, any unit of the System that is not an Improved Unit for the pollutant in question), claims may be pursued only regarding the pollutant that causes the Unit's designation as an Other Unit where the modification(s) on which such claim is based was commenced within the 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 regarding the pollutant that causes the Unit's designation as an Improved Unit 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 5 years preceding the violation or failure specified in this Paragraph.

178. Additional Bases for Pursuing Resolved Claims for Modifications at an Improved Unit. Solely with respect to the pollutant that causes the Unit's designation as an Improved Unit, the United States may also pursue claims arising from a modification (or collection of modifications) at an Improved Unit that have otherwise been resolved under Subsection XI.A. (Resolution of 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, and (b) individually (or collectively) increased the maximum hourly Emission Rate of that Unit for the pollutant that caused the Unit's designation as an Improved Unit (as measured by 40 C.F.R. §§ 60.14(b) and (h)) by more than 10%.

179. Additional Bases for Pursuing Resolved Claims for Modification at an Other Unit. Solely with respect to the pollutant that causes the Unit's designation as an Other Unit, the United States may also pursue claims arising from a modification (or collection of modifications) at an Other Unit that have otherwise been resolved under Subsection XI.A. (Resolution of Civil Claims), if the modification (or collection of modifications) at the Other Unit on which such claim is based was commenced within 5 years preceding any of the following events:

- a. A modification (or collection of modifications) at such Other Unit commenced after the Date of Lodging of this Consent Decree that increases the maximum hourly Emission Rate for such pollutant that caused the Unit's designation as an Other Unit (NO_x or SO₂), as measured by 40 C.F.R. §§ 60.14(b) and (h);
- b. The aggregate of all Capital Expenditures made at such Other Unit exceeds \$150/kW on the Other Unit's Boiler Island (based on the generating capacities identified in this Consent Decree) during the period from the Date of Entry of this

Consent Decree through December 31, 2018 (Capital Expenditures shall be measured in calendar year 2015 constant dollars, as adjusted by the McGraw-Hill Engineering News-Record Construction Cost Index); or

- c. A modification (or collection of modifications) at such Other Unit commenced after the Date of Lodging of this Consent Decree that results in an emissions increase for such pollutant that caused the Unit's designation as an Other Unit (NO_x and/or SO₂) at such Other Unit, and such increase of such pollutant: (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 this Subparagraph (c) to pursue any claim for modification at an Other Unit resolved under Subsection A of this Section.

XII. PERIODIC REPORTING

180. After entry of this Consent Decree, Defendant shall submit to Plaintiffs a periodic report, within 60 Days after the end of each half of the calendar year (January through June and July through December). The report shall include the following information:

- a. all information necessary to determine compliance during the reporting period with: all applicable 30-Day Rolling Average Emission Rates for NO_x, 30-Day Rolling Average Emission Rates for SO₂, and 24-Hour Rolling Average Emission Rates for PM; all applicable 12-Month Rolling Average Emission Rates for NO_x and all 12-Month Rolling Average Emission Rates for SO₂; all applicable 3-hour average PM Emission Rates; all applicable Prairie Creek Annual Tonnage Limitations; all applicable System-Wide Annual Tonnage Limitations; the obligation to monitor NO_x, SO₂, and PM emissions; the obligation to optimize PM emission controls; and the obligation to Surrender NO_x Allowances and SO₂ Allowances;
- b. all periods of monitor Malfunction, maintenance, and/or repair as provided in Paragraph 150;
- c. emission reporting and Allowance accounting information necessary to determine Super-Compliant NO_x and SO₂ Allowances that Defendant claims to have generated in accordance with Paragraphs 110 and 134 through control of emissions beyond the requirements of this Consent Decree;
- d. schedule for the installation or upgrade and commencement of operation of new or upgraded pollution control devices required by this Consent Decree, including the nature and cause of any actual or anticipated delays, and any steps taken by the Defendant to mitigate such delay;
- e. all affirmative defenses asserted pursuant to Paragraph 197 during the period covered by the progress report;

- f. an identification of all periods when any pollution control device required by this Consent Decree to Continuously Operate was not operating, the reason(s) for the equipment not operating, and the basis for Defendant's compliance or non-compliance with the Continuous Operation requirements of this Consent Decree; and
- g. a summary of Defendant's actions implemented and expenditures (cumulative and in the current reporting period) made pursuant to implementation of the Environmental Mitigation Projects required pursuant to Section IX.

If Defendant's initial periodic report covers a period of time of less than 60 Days Defendant shall not be required to submit a periodic report for that period, but shall include all of the above information and data for that period in its next periodic report.

181. In any periodic report submitted pursuant to this Section XII, Defendant may incorporate by reference information previously submitted under its Title V permitting requirements, provided that the Defendant attaches the Title V Permit report (or the pertinent portions of such report) and provides a specific reference to the provisions of the Title V Permit report that are responsive to the information required in the periodic report.

182. In addition to the reports required pursuant to this Section, Defendant shall submit to Plaintiffs a report of any violation or deviation from any provision of this Consent Decree within 15 Working Days after Defendant knew or should have known of the event. In the report, the Defendant shall explain the cause or causes of the violation or deviation and all measures taken or to be taken by the Defendant to cure the reported violation or deviation or to prevent such violations or deviations in the future. If at any time the provisions of this Consent

Decree are included in Title V Permits, consistent with the requirements for such inclusion in this Consent Decree, then the deviation reports required under applicable Title V regulations shall be deemed to satisfy all the requirements of this Paragraph.

183. Each report required by this Consent Decree shall be signed by the Responsible Official as defined in Title V of the Clean Air Act for the appropriate System Unit(s), 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.

XIII. REVIEW AND APPROVAL OF SUBMITTALS

184. Defendant shall submit each plan, report, or other submission required by this Consent Decree to Plaintiffs whenever and in the manner such a document is required to be submitted for review or approval pursuant to this Consent Decree. EPA (after consultation with the other Plaintiffs) may approve the submission or decline to approve it and provide written comments explaining the bases for declining such approval as soon as reasonably practicable. Within 60 Days of receiving written comments from EPA, Defendant shall either: (a) revise the submission consistent with the written comments and provide the revised submission to EPA; or (b) submit the matter for dispute resolution, including the period of informal negotiations, under Section XVI (Dispute Resolution) of this Consent Decree.

185. Upon receipt of EPA's final approval of the submission, or upon completion of the submission pursuant to dispute resolution, Defendant shall implement the approved submission in accordance with the schedule specified therein or another EPA-approved schedule.

XIV. STIPULATED PENALTIES

186. For any failure by Defendant to comply with the terms of this Consent Decree, and subject to the provisions of Sections XV (Force Majeure) and XVI (Dispute Resolution) and the other Paragraphs in this Section of the Consent Decree, Defendant shall pay, within 30 Days after receipt of written demand by the United States and/or the State of Iowa and/or Linn County, the following stipulated penalties.

Consent Decree Violation	Stipulated Penalty
a. Failure to pay the civil penalty as specified in Section X (Civil Penalty) of this Consent Decree	\$10,000 per Day
b. Failure to comply with any applicable 30-Day Rolling Average Emission Rate for NO _x or SO ₂	<p>\$2,500 per Day per violation where the violation is less than 5% in excess of the lb/mmBTU limits</p> <p>\$5,000 per Day per violation where the violation is equal to or greater than 5% but less than 10% in excess of the lb/mmBTU limits</p> <p>\$10,000 per Day per violation where the violation is equal to or greater than 10% in excess of the lb/mmBTU limits</p>
c. Failure to comply with any applicable 12-Month Rolling Average Emission Rate for NO _x or SO ₂ , where the violation is less than 5% in excess of the limits set forth in this Consent Decree	\$200 per Day per violation

<p>d. Failure to comply with any applicable 12-Month Rolling Average Emission Rate for NO_x or SO₂, 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</p>	<p>\$400 per Day per violation</p>
<p>e. Failure to comply with any applicable 12-Month Rolling Average Emission Rate for NO_x or SO₂, where the violation is equal to or greater than 10% in excess of the limits set forth in this Consent Decree</p>	<p>\$800 per Day per violation</p>
<p>f. Failure to comply with the applicable System-Wide Annual Tonnage Limitations for NO_x established by this Consent Decree</p>	<p>(1) \$5,000 per ton for first 100 tons, \$10,000 per ton for each additional ton above 100 tons, plus (2) at the option of the Defendant either the Surrender of NO_x Allowances in an amount equal to two times the number of tons of NO_x emitted that exceeded the System-Wide Annual Tonnage Limitation for NO_x, or the payment of \$2,500 per ton for an amount of tons equal to two times the number of tons of NO_x emitted that exceeded the System-Wide Annual Tonnage Limitation for NO_x</p>

<p>g. Failure to comply with the applicable Prairie Creek Annual Tonnage Limitation for NO_x established by this Consent Decree</p>	<p>(1) \$5,000 per ton for first 100 tons, \$10,000 per ton for each additional ton above 100 tons, plus (2) at the option of the Defendant either the Surrender of NO_x Allowances in an amount equal to two times the number of tons of NO_x emitted that exceeded the Prairie Creek Annual Tonnage Limitation for NO_x, or the payment of \$2,500 per ton for an amount of tons equal to two times the number of tons of NO_x emitted that exceeded the Prairie Creek Annual Tonnage Limitation for NO_x</p>
<p>h. Failure to comply with any applicable System-Wide Annual Tonnage Limitations for SO₂ established by this Consent Decree</p>	<p>(1) \$5,000 per ton for the first 100 tons over the limit, and \$10,000 per ton for each additional ton over the limit, plus (2) at the option of the Defendant either the Surrender of SO₂ Allowances in an amount equal to two times the number of tons of SO₂ emitted that exceeded the System-Wide Annual Tonnage Limitation for SO₂, or the payment of \$2,500 per ton for an amount of tons equal to two times the number of tons of SO₂ emitted that exceeded the System-Wide Annual Tonnage Limitation for SO₂</p>

<p>i. Failure to comply with the applicable Prairie Creek Annual Tonnage Limitation for SO₂ established by this Consent Decree</p>	<p>(1) \$5,000 per ton for the first 100 tons over the limit, and \$10,000 per ton for each additional ton over the limit, plus (2) at the option of the Defendant either the Surrender of SO₂ Allowances in an amount equal to two times the number of tons of SO₂ emitted that exceeded the Prairie Creek Annual Tonnage Limitation for SO₂, or the payment of \$2,500 per ton for an amount of tons equal to two times the number of tons of SO₂ emitted that exceeded the Prairie Creek Annual Tonnage Limitation for SO₂</p>
<p>j. Failure to comply with any applicable PM Emission Rate, where the violation is less than 5% in excess of the lb/mmBTU limit</p>	<p>\$2,500 per Unit Operating Day per violation, starting on the Unit Operating Day that a stack test result demonstrates a violation and continuing each Unit Operating Day thereafter until and excluding such Unit Operating Day on which a subsequent stack test demonstrates compliance with the applicable PM Emission Rate</p>
<p>k. Failure to comply with any applicable PM Emission Rate, where the violation is equal to or greater than 5% but less than 10% in excess of the lb/mmBTU limit</p>	<p>\$5,000 per Unit Operating Day per violation, starting on the Unit Operating Day a stack test result demonstrates a violation and continuing each Unit Operating Day thereafter until and excluding such Unit Operating Day on which a subsequent stack test demonstrates compliance with the applicable PM Emission Rate</p>

<p>l. Failure to comply with any applicable PM Emission Rate, where the violation is equal to or greater than 10% in excess of the lb/mmBTU limit</p>	<p>\$10,000 per Unit Operating Day per violation, starting on the Unit Operating Day a stack test result demonstrates a violation and continuing each Unit Operating Day thereafter until and excluding such Unit Operating Day on which a subsequent stack test demonstrates compliance with the applicable PM Emission Rate</p>
<p>m. Failure to install, commence Continuous Operation, or Continuously Operate a NO_x, SO₂, or PM control device as required under this Consent Decree</p>	<p>\$10,000 per Day per violation during the first 30 Days; \$37,500 per Day per violation thereafter</p>
<p>n. Failure to Retire, Refuel, or Repower as required under this Consent Decree</p>	<p>\$10,000 per Day per violation during the first 30 Days; \$37,500 per Day per violation thereafter</p>
<p>o. Failure to conduct a stack test for PM as required by Section VII.D of this Consent Decree</p>	<p>\$5,000 per Day per violation</p>
<p>p. Failure to install or operate NO_x, SO₂, and/or PM CEMS as required in this Consent Decree</p>	<p>\$1,000 per Day per violation</p>
<p>q. Failure to apply for any permit required by Section XVII (Permits)</p>	<p>\$1,000 per Day per violation</p>
<p>r. Failure to timely submit or implement, as approved, the reports, plans, studies, analyses, protocols, or other submittals required by this Consent Decree</p>	<p>\$750 per Day per violation during the first 10 Days; \$1,000 per Day per violation thereafter</p>
<p>s. Failure to Surrender SO₂ Allowances as required under this Consent Decree</p>	<p>\$37,500 per Day. In addition, \$1,000 per SO₂ Allowance not Surrendered</p>
<p>t. Failure to Surrender NO_x Allowances as required under this Consent Decree</p>	<p>\$37,500 per Day. In addition, \$1,000 per NO_x Allowance not Surrendered</p>

u. Using, selling, banking, trading, or transferring NO _x Allowances or SO ₂ Allowances except as permitted under this Consent Decree	At the option of the Defendant either the Surrender of Allowances in an amount equal to four times the number of Allowances used, sold, banked, traded, or transferred in violation of this Consent Decree, or the payment of \$2,500 per ton for an amount of tons equal to four times the number of Allowances used, sold, banked, traded, or transferred in violation of this Consent Decree
v. Failure to optimize ESPs as required by Paragraph 137	\$1,000 per Day per violation
w. Failure to undertake and complete as described in Appendix A any of the Environmental Mitigation Projects in compliance with Section IX (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
x. Any other violation of this Consent Decree	\$1,000 per Day per violation

187. Violations of any limit based on a 30-Day Rolling Average Emission Rate constitutes 30 Days of violation, provided, however, that where such a violation (for the same pollutant and from the same Unit) recurs within periods less than 30 Days, Defendant 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.

188. Violations of any limit based on a 12-Month Rolling Average Emission Rate constitutes 365 Days of violation, provided, however, that where such a violation (for the same pollutant and from the same Unit) recurs within periods less than 12 months, Defendant 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.

189. 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. For example, emissions for one Day may be included in only one 30-Day Rolling Average calculation. Nothing in this Consent Decree shall prevent the simultaneous accrual of separate stipulated penalties for separate violations of this Consent Decree.

190. Where the United States, the State of Iowa and Linn County seek stipulated penalties for the same violation of this Consent Decree, Defendant shall pay 66% to the United States, 22.5% to the State of Iowa, and 11.5% to Linn County. The Plaintiff making a demand for payment of a stipulated penalty shall simultaneously send a copy of the demand to the other Plaintiffs.

191. For purposes of the stipulated penalty for failure to make any Allowance Surrender required pursuant to Subparagraphs 186.s to 186.u, Defendant shall make the Surrender of any Allowances required by such Subparagraph by June 30 of the immediately following calendar year.

192. All stipulated penalties shall be paid within 30 Days of receipt of written demand to the Defendant from the United States, the State of Iowa and/or Linn County, and Defendant shall continue to make such payments every 30 Days thereafter until the violation(s) no longer continues, unless Defendant elects within 20 Days of receipt of written demand to dispute the imposition or accrual of stipulated penalties in accordance with the provisions in Section XVI (Dispute Resolution) of this Consent Decree.

193. Stipulated penalties shall continue to accrue as provided in accordance with Paragraph 189 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 the Plaintiffs pursuant to Section XVI (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 30 Days of the effective date of the agreement or of the receipt of the Plaintiffs' decision;
- b. If the dispute is appealed to the Court and the Plaintiffs prevail in whole or in part, the Defendant shall, within 30 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 either Party, the Defendant shall, within 15 Days of receipt of the final appellate court decision, pay all accrued stipulated penalties determined to be owed, together with interest accrued on such stipulated penalties determined to be owed by the appellate court.

Notwithstanding any other provision of this Consent Decree, the accrued stipulated penalties agreed to by the United States and Defendant, or determined by the United States through Dispute Resolution to be owed, may be less than the stipulated penalty amounts set forth in Paragraph 186.

194. All monetary stipulated penalties shall be paid in the manner set forth in Section X (Civil Penalty) of this Consent Decree and all Allowance Surrender stipulated penalties shall comply with the Allowance Surrender procedures of Paragraphs 111 to 112 and 135 to 136.

195. Should Defendant fail to pay stipulated penalties in compliance with the terms of this Consent Decree, the United States, the State of Iowa, and Linn County shall be entitled to collect interest on such penalties, as provided for in 28 U.S.C. § 1961.

196. The stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the Plaintiffs by reason of Defendant's 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, Defendant shall be allowed a credit for stipulated penalties paid against any statutory penalties also imposed for such violation.

197. Affirmative Defense as to Stipulated Penalties for Excess Emissions Occurring During Malfunctions. If any of the Units in the System exceed an applicable 24-Hour or 30-Day Rolling Average Emission Rate set forth in this Consent Decree, due to Malfunction, the Defendant, bearing the burden of proof by a preponderance of the evidence, has an affirmative defense to a claim for stipulated penalties under this Consent Decree, if Defendant has complied with the reporting requirements of Paragraphs 198 and 199 and demonstrates all of the following:

- a. the excess emissions were caused by a sudden, unavoidable breakdown of technology, beyond the control of the Defendant;

- b. the excess emissions (1) did not stem from any activity or event that could have been foreseen and avoided, or planned for, and (2) could not have been avoided by better operation and maintenance practices in accordance with manufacturers' specifications and good engineering and maintenance practices;
- c. to the maximum extent practicable, the air pollution control equipment and processes were maintained and operated in a manner consistent with good practice for minimizing emissions in accordance with manufacturers' specifications and good engineering and maintenance practices;
- d. repairs were made in an expeditious fashion when Defendant knew or should have known that an applicable 24-Hour or 30-Day Rolling Average Emission Rate was being or would be exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as practicable;
- e. the amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions in accordance with manufacturers' specifications and good engineering and maintenance practices;
- f. all possible steps were taken to minimize the impact of the excess emissions on ambient air quality;
- g. all emission monitoring systems were kept in operation if at all possible in accordance with manufacturers' specifications and good engineering and maintenance practices;

- h. Defendant's actions in response to the excess emissions were documented by properly signed or otherwise validated, contemporaneous operating logs, or other relevant evidence;
- i. the excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and
- j. Defendant properly and promptly notified Plaintiffs as required by this Consent Decree.

198. To assert an affirmative defense for exceedance of an applicable 24-Hour Rolling Emission Rate due to Malfunction under Paragraph 197, the Defendant shall submit all data demonstrating the actual emissions for any 24 hour period during which the excess emissions from the Malfunction occurs. To assert an affirmative defense for exceedance of an applicable 30-Day Rolling Emission Rate due to Malfunction under Paragraph 197, the Defendant shall submit all data demonstrating the actual emissions for the Day the Malfunction occurs and the 29-Unit Operating Day period following the Day the Malfunction occurs. Defendant may, if it elects, submit emissions data for the same 24-Hour or 30-Unit Operating Day period, as applicable, but that excludes the excess emissions.

199. For an affirmative defense under Paragraphs 197, Defendant, bearing the burden of proof by a preponderance of the evidence, shall demonstrate, through submission of the data and information under the reporting provisions of this Section, that all reasonable and practicable measures in accordance with good engineering and maintenance practices and within the Defendant's control were implemented to prevent the occurrence of the excess emissions.

200. Defendant shall provide notice to Plaintiffs in writing of Defendant's intent to assert an affirmative defense for Malfunction under Paragraphs 197 in Defendant's semi-annual progress reports as required by Paragraph 180. This notice shall be submitted pursuant to the provisions of Section XIX (Notices). The notice shall contain:

- a. The identity of each stack or other emission point where the excess emissions occurred;
- b. The magnitude of the excess emissions expressed in lb/mmBTU and the operating data and calculations used in determining the magnitude of the excess emissions;
- c. The time and duration or expected duration of the excess emissions;
- d. The identity of the equipment causing the excess emissions;
- e. The nature and suspected cause of the excess emissions;
- f. The steps taken, if the excess emissions were the result of a Malfunction, to remedy the Malfunction and the steps taken or planned to prevent the recurrence of the Malfunction;
- g. The steps that were or are being taken to limit the excess emissions; and
- h. If applicable, a list of the steps taken to comply with permit conditions governing Unit operation during periods of startup, shutdown, and/or Malfunction.

201. A Malfunction shall not constitute a Force Majeure Event unless the Malfunction also meets the definition of a Force Majeure Event, as provided in Section XV (Force Majeure).

202. The affirmative defense provided herein is only an affirmative defense to stipulated penalties for violations of this Consent Decree, and not a defense to any civil or administrative action for injunctive relief.

XV. FORCE MAJEURE

203. For purposes of this Consent Decree, a “Force Majeure Event” shall mean an event that has been or will be caused by circumstances beyond the control of Defendant, its contractors, or any entity controlled by Defendant that delays or prevents the performance of any obligation under this Consent Decree or otherwise causes a violation of any provision of this Consent Decree despite the Defendant’s 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 and/or violation are minimized to the greatest extent possible and the emissions during such event are minimized to the greatest extent possible. Specific references to Force Majeure in other parts of this Consent Decree do not restrict the ability of the Defendant to assert Force Majeure pursuant to the process described in this Section.

204. Notice of Force Majeure Events. If any event occurs or has occurred that may delay or prevent compliance with or otherwise cause a violation of any obligation under this Consent Decree, as to which Defendant intends to assert a claim of Force Majeure, then the Defendant shall notify Plaintiffs in writing as soon as practicable, but in no event later than 15 Working Days following the date the Defendant 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, the Defendant 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 Force Majeure Event, all measures taken or to be taken by the Defendant to prevent or minimize the delay or violation, the schedule by which the Defendant proposes to implement those measures, and the

Defendant's rationale for attributing the failure, delay, or violation to a Force Majeure Event. A copy of this Notice shall be sent electronically, as soon as practicable, to Plaintiffs. The Defendant shall adopt all reasonable measures to avoid or minimize such failures, delays, or violations. The Defendant shall be deemed to know of any circumstance which it, its contractors, or any entity controlled by it, knew or should have known.

205. Failure to Give Notice. If the Defendant fails to comply with the notice requirements of this Section, the United States (after consultation with the other Plaintiffs) may void Defendant's claim for Force Majeure as to the specific event for which the Defendant has failed to comply with such notice requirement.

206. Plaintiffs' Response. The United States shall notify the Defendant in writing regarding Defendant's claim of Force Majeure as soon as reasonably practicable. If the United States (after consultation with the other Plaintiffs) agrees that a delay in performance has been or will be caused by a Force Majeure Event, the Plaintiffs and the Defendant 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 as otherwise agreed to by the United States (after consultation with the other Plaintiffs) and the Defendant, in which case the delay at issue shall be deemed not to be a violation of the affected requirement(s) of this Consent Decree. In such circumstances, an appropriate modification shall be made pursuant to Section XXIII (Modification) of this Consent Decree.

207. Disagreement. If the United States (after consultation with the other Plaintiffs) does not agree with the Defendant's claim of Force Majeure, or if the United States and the Defendant cannot agree on the length of the delay actually caused by the Force Majeure Event,

the matter shall be resolved in accordance with Section XVI (Dispute Resolution) of this Consent Decree.

208. Burden of Proof. In any dispute regarding Force Majeure, the Defendant 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. The Defendant shall also bear the burden of proving that the Defendant gave the notice required by this Section and the anticipated duration and extent of any failure, delay, or violation(s) attributable to a Force Majeure Event. An extension of one compliance date may, but will not necessarily, result in an extension of a subsequent compliance date.

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

210. Potential Force Majeure Events. The Parties agree that, depending upon the circumstances related to an event and the Defendant's 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 (e.g., the Midcontinent Independent System Operator, Inc.), acting under and authorized by applicable law or tariff as accepted by the Federal Energy Regulatory Commission, that directs the Defendant to supply electricity so long as such order is a response to a system-wide (state-wide or regional)

emergency which could include unanticipated required operation to avoid loss of load or unserved load or is necessary to preserve the reliability of the bulk power system. Depending upon the circumstances and the Defendant's response to such circumstances, failure of a permitting authority or the Iowa Utilities Board to issue a necessary permit or order with sufficient time for the Defendant to achieve compliance with this Consent Decree may constitute a Force Majeure Event where the failure of the authority to act is beyond the control of the Defendant and the Defendant has taken all steps available to it to obtain the necessary permit or order, including, but not limited to: submitting a complete permit application or request; responding to requests for additional information by the 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 authority.

211. Extended Schedule. As part of the resolution of any matter submitted to this Court under Section XVI (Dispute Resolution) of this Consent Decree regarding a claim of Force Majeure, the United States and Defendant by agreement, or this Court by order, may in appropriate circumstances extend or modify the schedule for completion of work and/or obligations under this Consent Decree to account for the delay in the work and/or obligations that occurred as a result of any delay agreed to by the United States or approved by the Court. The Defendant shall be liable for stipulated penalties pursuant to Section XIV (Stipulated Penalties) for its failure thereafter to complete the work and/or obligations in accordance with the extended or modified schedule (provided that the Defendant shall not be precluded from asserting that a further Force Majeure Event has caused or may cause a delay in complying with the extended or modified schedule).

XVI. DISPUTE RESOLUTION

212. 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 Party. The provisions of this Section XVI shall be the sole and exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree.

213. The dispute resolution procedure required herein shall be invoked by one Party giving written notice to the other Party 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 in dispute shall expeditiously schedule a meeting to discuss the dispute informally not later than 14 Days following receipt of such notice.

214. Disputes submitted to dispute resolution under this Section shall, in the first instance, be the subject of informal negotiations between the Parties. Such period of informal negotiations shall not extend beyond 30 Days from the date of the first meeting between the Parties' representatives unless they agree in writing to shorten or extend this period.

215. If the Parties are unable to reach agreement during the informal negotiation period, the Plaintiff or Plaintiffs shall provide Defendant with a written summary of their position(s) regarding the dispute. The written position provided by the Plaintiff or Plaintiffs, or by the United States if Plaintiffs have different positions, shall be considered binding unless, within 45 Days thereafter, the Defendant, or the State of Iowa, Linn County, or Sierra Club if Plaintiffs have different positions, seeks judicial resolution of the dispute by filing a petition with

this Court. Any Party opposing such petition may submit a response to the petition within 45 Days of filing.

216. 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.

217. 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.

218. As part of the resolution of any dispute under this Section, in appropriate circumstances the 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. The Defendant shall be liable for stipulated penalties pursuant to Section XIV (Stipulated Penalties) for its failure thereafter to complete the work in accordance with the extended or modified schedule, provided that Defendant 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.

219. The Court shall decide all disputes pursuant to applicable principles of law for resolving such disputes. In their filings with the Court under Paragraph 215, the Parties shall state their respective positions as to the applicable standard of law for resolving the particular dispute.

XVII. PERMITS

220. Unless expressly stated otherwise in this Consent Decree, in any instance where otherwise applicable law or this Consent Decree requires Defendant to secure a permit to authorize construction or operation of any device, including all preconstruction, construction, and operating permits required under State law, the Defendant shall make such application in a timely manner. The State of Iowa and EPA will use best efforts to review expeditiously, to the extent applicable, all permit applications submitted by Defendant to meet the requirements of this Consent Decree.

221. Notwithstanding the previous Paragraphs, nothing in this Consent Decree shall be construed to require Defendant to apply for, amend, or obtain a PSD or Nonattainment NSR permit or permit modification for any physical change in, or any change in the method of operation of, any System Unit that would give rise to claims resolved by Section XI (Resolution of Claims) of this Consent Decree.

222. When permits are required, the Defendant shall complete and submit applications for such permits to the applicable State or local agency to allow sufficient time for all legally required processing and review of the permit request, including requests for additional information by the applicable State or local agency. Any failure by Defendant to submit a timely permit application for a System Unit, as required by permitting requirements under state, local, and/or federal regulations, shall bar any use of Section XV (Force Majeure) of this Consent Decree where a Force Majeure claim is based on permitting delays.

223. Notwithstanding the reference to the Title V Permits for the System Units in this Consent Decree, the enforcement of such permits shall be in accordance with their own terms

and the CAA and its implementing regulations. Such Title V Permits shall not be enforceable under this Consent Decree, although any term or limit established by or under this Consent Decree shall be enforceable under this Consent Decree regardless of whether such term has or will become part of a Title V Permit, subject to the terms of Section XXVII (Termination) of this Consent Decree.

224. Within 180 Days after the Date of Entry of this Consent Decree, the Defendant shall amend any applicable Title V Permit application(s), or apply for amendments of its Title V Permits, to include a schedule for all Unit-specific, plant-specific, and System-specific performance, operational, maintenance, and control technology requirements established by this Consent Decree including, but not limited to, any (a) 12-Month Rolling Average Emission Rate for NO_x, (b) 12-Month Rolling Average Emission Rate for SO₂, (c) 30-Day Rolling Average Emission Rate for NO_x, (d) 30-Day Rolling Average Emission Rate for SO₂, (e) System-Wide Annual Tonnage Limitation, (f) Prairie Creek Annual Tonnage Limitation, (g) requirements pertaining to the Surrender of SO₂ and NO_x Allowances, (h) PM Emission Rate and annual stack test requirements, (i) PM CEMS monitoring equipment, and (j) the Retirement, Refueling, or Repowering of any Unit as required under this Consent Decree.

225. Within one year from the Date of Entry of this Consent Decree, the Defendant shall apply to permanently include the requirements and limitations enumerated in this Consent Decree into a federally enforceable permit, such that the requirements and limitations enumerated in this Consent Decree become and remain 'applicable requirements' as that term is defined in 40 C.F.R. Part 70.2. The permit shall require compliance with the following: any applicable (a) 12-Month Rolling Average Emission Rate for NO_x, (b) 12-Month Rolling Average

Emission Rate for SO₂, (c) 30-Day Rolling Average Emission Rate for NO_x, (d) 30-Day Rolling Average Emission Rate for SO₂, (e) System-Wide Annual Tonnage Limitation, (f) Prairie Creek Annual Tonnage Limitation, (g) requirements pertaining to the Surrender of SO₂ and NO_x Allowances, (h) PM Emission Rate and annual stack test requirements, (i) PM CEMS monitoring equipment requirements, and (j) Retirement, Refueling, or Repowering requirements.

226. Defendant shall provide the Plaintiffs with a copy of each application for a federally enforceable permit, as well as a copy of any permit proposed as a result of such application, to allow for timely participation in any public comment opportunity.

227. Prior to termination of this Consent Decree, Defendant shall obtain enforceable provisions in its Title V Permits that incorporate all applicable Unit-specific, plant-specific, and System-specific performance, operational, maintenance, and control technology requirements established by this Consent Decree including, but not limited to, any applicable (a) 12-Month Rolling Average Emission Rate for NO_x, (b) 12-Month Rolling Average Emission Rate for SO₂, (c) 30-Day Rolling Average Emission Rate for NO_x, (d) 30-Day Rolling Average Emission Rate for SO₂, (e) System-Wide Annual Tonnage Limitation, (f) Prairie Creek Annual Tonnage Limitation, (g) requirements pertaining to the Surrender of SO₂ and NO_x Allowances, (h) PM Emission Rate and annual stack test requirements, (i) PM CEMS monitoring equipment requirements, and (j) Retirement, Refueling, or Repowering requirements.

XVIII. INFORMATION COLLECTION AND RETENTION

228. Any authorized representative of the United States, the State of Iowa or Linn County, including their attorneys, contractors, and consultants, upon presentation of credentials,

shall have a right of entry upon the premises of a System Unit 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 Plaintiffs in accordance with the terms of this Consent Decree;
- c. obtaining samples and, upon request, splits of any samples taken by Defendant or its representatives, contractors, or consultants; and
- d. assessing Defendant's compliance with this Consent Decree.

229. Where applicable, Defendant shall retain, and instruct its contractors and agents to preserve, all non-identical copies of all records and documents (including records and documents in electronic form) in its or its contractors' or agents' possession or control, and that directly relate to Defendant's performance of its obligations under this Consent Decree for the following periods: (a) until December 31, 2023, for records concerning physical or operational changes undertaken in accordance with Section V (NO_x Emission Reductions and Controls), Section VI (SO₂ Emission Reductions and Controls), and Section VII (PM Emission Reductions and Controls); and (b) until December 31, 2021, for all other records. This record retention requirement shall apply regardless of any corporate document retention policy to the contrary.

230. All information and documents submitted by Defendant 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) Defendant claims and substantiates in accordance with 40 C.F.R. Part 2 and any applicable State law that the information and documents contain confidential business information.

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

XIX. NOTICES

232. 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 of America:

(if by mail service)
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# 90-5-2-1-10594

(if by commercial delivery service)
Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
ENRD Mailroom, Room 2121
601 D Street, NW
Washington, DC 20004
DJ# 90-5-2-1-10594

and

(if by mail service)
Director, Air Enforcement Division
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
Mail Code 2242A
1200 Pennsylvania Avenue, NW
Washington, DC 20460

(if by commercial delivery service)

Director, Air Enforcement Division
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
Ariel Rios South Building, Room 1119
1200 Pennsylvania Avenue, NW
Washington, DC 20004

and

Chief, Air Permitting and Compliance Branch
U.S. EPA Region VII
11201 Renner Blvd
Lenexa, KS 66219

As to the State of Iowa

Brian Hutchins
Environmental Program Supervisor
Iowa Department of Natural Resources
7900 Hickman Rd., Suite 1
Windsor Heights, IA 50324

and

David S. Steward
Assistant Attorney General
Environmental Law Division
Lucas State Office Building
321 E. 12th Street, Room 018
Des Moines, IA 50319

As to Linn County:

James Hodina
Manager, Environmental Public Health
Linn County Public Health
501 13th Street NW
Cedar Rapids, IA 52405

and

Lisa Epp
Assistant Linn County Attorney
Civil Division

935 2nd Street SW
Cedar Rapids, IA 52402

As to the Sierra Club:

Director, Environmental Law Program
Sierra Club
85 Second Street, 2nd Fl.
San Francisco, CA 94105

and

David C. Bender
Pamela McGillivray
McGillivray Westerberg & Bender LLC
211 S. Paterson St., Ste 320
Madison, WI 53703

As to Defendant:

President, Interstate Power and Light Company
200 1st St. SE
Cedar Rapids, Iowa 52401

and

General Counsel, Interstate Power and Light Company
4902 N. Biltmore Lane
Madison, WI 537118

and

Vice President, Environmental Affairs, Interstate Power and Light Company
200 1st St. SE
Cedar Rapids, Iowa 52401

233. All notifications, communications, or submissions made pursuant to this Section shall be sent either by: (a) overnight mail or overnight delivery service with signature required for delivery, or (b) certified or registered mail, return receipt requested. All notifications, communications, and transmissions (a) sent by overnight, certified, or registered mail shall be

deemed submitted on the date they are postmarked, or (b) sent by overnight delivery service shall be deemed submitted on the date they are delivered to the delivery service.

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

XX. SALES OR TRANSFERS OF OPERATIONAL OR OWNERSHIP INTERESTS

235. If Defendant proposes to sell or transfer an Operational Interest or Ownership Interest in a System Unit to an entity unrelated to Defendant (a “Third Party Purchaser”), Defendant shall advise the Third Party Purchaser in writing of the existence of this Consent Decree prior to such sale or transfer, and shall send a copy of such written notification and a copy of any written agreement proposing the transfer of an Operation or Ownership Interest to the United States and the State of Iowa pursuant to Section XIX (Notices) of this Consent Decree at least 60 Days before such proposed sale or transfer. Recipients of this notice shall treat it as confidential for the 60 days if requested by the Defendant; provided that nothing in this Paragraph prevents Defendant from claiming additional confidentiality protections in accordance with 40 C.F.R. Part 2 and any applicable State law.

236. No earlier than 30 days after providing the notice in Paragraph 235, the Defendant may file a motion with the Court to modify this Consent Decree to make the terms and conditions of this Consent Decree applicable to the Third Party Purchaser. No sale or transfer to a Third Party Purchaser of an Operational Interest or Ownership Interest shall take place before the Third Party Purchaser has executed, and the Court has approved, a modification pursuant to Section XXIII (Modification) of this Consent Decree making the Third Party Purchaser a party to

this Consent Decree and liable for the Defendant's applicable requirements of this Consent Decree.

237. This Consent Decree shall not be construed to impede the transfer of any Operational Interests or Ownership Interests between Defendant and any Third Party Purchaser 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 Defendant and any Third Party Purchaser of Operational Interests or Ownership Interests – of the burdens of compliance with this Consent Decree.

238. No sale or transfer of an Operational or Ownership Interest, whether in compliance with the procedures of this Section or otherwise, shall relieve Defendant of its obligation to ensure that the terms of this Consent Decree are implemented, unless (1) the transferee agrees to undertake all of the obligations required by this Consent Decree that may be applicable to the transferred or purchased Operational or Ownership Interests, and to be substituted for the Defendant as a Party under the Decree pursuant to Section XXIII (Modification) and thus be bound by the terms thereof, and (2) the United States (after consultation with the other Plaintiffs) consents to relieve the Defendant of its obligations. The United States (after consultation with the other Plaintiffs) may refuse to approve the substitution of the transferee for the Defendant if it determines that the proposed transferee does not possess the requisite technical abilities or financial means to comply with the Consent Decree. Notwithstanding the foregoing, however, Defendant may not assign, and may not be released from, any obligation under this Consent Decree that is not specific to the purchased or

transferred Operational Interest or Ownership Interests, including the obligations set forth in Sections IX (Environmental Mitigation Projects) and X (Civil Penalty).

239. Paragraphs 236 to 238 of this Consent Decree do not apply if an Ownership Interest is sold or transferred solely as collateral security in order to consummate a financing arrangement (not including a sale-leaseback), so long as the Defendant: (a) remains the Owner or Operator (as those terms are used and interpreted under the Clean Air Act) of the subject Unit(s); (b) remains subject to and liable for all obligations and liabilities of this Consent Decree; and (c) supplies Plaintiffs with the following certification within 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 Interstate Power and Light Company, hereby jointly certify under Title 18 U.S.C. Section 1001, on our own behalf and on behalf of Interstate Power and Light Company, that any change in Interstate Power and Light Company’s Ownership Interest in any 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 Interstate Power and Light Company 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 Interstate Power and Light Company’s ability, legally or otherwise, to comply timely with all terms and provisions of the Consent Decree entered in *United States et al. v. Interstate Power and Light Company*, Civil Action_____; c) does not affect Interstate Power and Light Company’s ownership or operational control of any Unit covered by that Consent Decree in a manner that is inconsistent with Interstate Power and Light Company’s performance of its obligations under the Consent Decree; and d) in no way affects the status of Interstate Power and Light Company’s obligations or liabilities under that Consent Decree.”

XXI. EFFECTIVE DATE

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

XXII. RETENTION OF JURISDICTION

241. 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 the interpretation, construction, execution, or modification of the Consent Decree, or for 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.

XXIII. MODIFICATION

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

XXIV. GENERAL PROVISIONS

243. When this Consent Decree specifies that Defendant shall achieve and maintain a 30-Day Rolling Average Emission Rate, the Parties expressly recognize that compliance with such 30-Day Rolling Average Emission Rate shall commence immediately upon the date specified and that compliance as of such specified date (e.g., December 30) shall be determined based on data from that date and the 29 prior Unit Operating Days.

244. When this Consent Decree specifies that Defendant shall achieve and maintain a 12-Month Rolling Average Emission Rate, then the Month containing that Day if that Day is the first Day of the Month, or if that Day is not the first Day of the Month then the next complete Month, shall be the first Month used in the calculation of the specified 12-Month limitation. For example, if the specified 12-Month Rolling Average Emission Rate is to be achieved starting January 1, 2014, then January 2014 is the first Month used in the calculation of the first applicable 12-Month Rolling Average Emission Rate, such that the first complete 12-Month Rolling Average Emission Rate period would, provided that the Unit fires Fossil Fuel in each

month, include January 2014 through December 2014. For further example, if the specified 12-Month Rolling Average Emission Rate is to be achieved starting July 15, 2014, then August 2014 is the first Month used in the calculation of the first applicable 12-Month Rolling Average Emission Rate, such that the first complete 12-Month Rolling Average Emission Rate period would, provided the Unit fires Fossil Fuel in each month, include August 2014 through July 2015.

245. 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 emission rates set forth herein do not relieve Defendant from any obligation to comply with other state and federal requirements under the CAA, including Defendant's obligation to satisfy any State modeling requirements set forth in the Iowa SIP.

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

247. In any subsequent administrative or judicial action initiated by the United States, the State of Iowa, Linn County, or Sierra Club for injunctive relief or civil penalties relating to a System Unit, as covered by this Consent Decree, Defendant 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 the United States, the State of Iowa, Linn County, or Sierra Club 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 Section XI (Resolution of Claims) or in any way compromise or diminish the waivers, releases, and covenants provided by Plaintiffs in Section XI (Resolution of Claims).

248. Nothing in this Consent Decree shall relieve Defendant from its obligation to comply with all applicable federal, state, and local laws and regulations, including laws, regulations, and compliance deadlines that become applicable after the Date of Entry of the Consent Decree. Such laws and regulations include, but are not limited to, the Utility Mercury and Air Toxics Standards, the National Ambient Air Quality Standards, the Utility New Source Performance Standards requirements, and the obligation to apply for a Clean Water Act NPDES permit(s) for the discharge of wastewater, and in connection with any such application or application for permit renewal, to provide the National Pollutant Discharge Elimination System (“NPDES”) permitting authority with all information necessary to appropriately characterize effluent from their operations and develop appropriate effluent limitations, including but not limited to all information necessary for the NPDES permitting authority to appropriately evaluate discharges of total dissolved solids (“TDS”) for their operations. Nothing in this Consent Decree should be construed to provide any relief from the emission limits or deadlines specified in such regulations, including, but not limited to, deadlines for the installation of pollution controls required by any such regulations, nor shall this Decree be construed as a pre-determination of eligibility for the one year extension that may be provided under 42 U.S.C. § 7412(i)(3)(B).

249. Subject to the provisions in Section XI (Resolution of Claims), Section XVI (Dispute Resolution), and XIV (Stipulated Penalties) 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.

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

251. 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. Defendant 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. Defendant shall report data to the number of significant digits in which the standard or limit is expressed.

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

253. 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.

254. Defendant, the United States, the State of Iowa, and Linn County shall each bear its own costs and attorneys' fees. Defendant shall pay Sierra Club's reasonable attorneys' fees and costs, pursuant to 42 U.S.C. § 7604(d), for the time and expenses incurred in this case. The deadline for Sierra Club to file a motion for costs of litigation (including attorneys' fees) for

activities prior to entry of this Consent Decree by the Court is hereby extended until 30 Days after this Consent Decree is entered by the Court. Prior to and/or during this 30-Day period, Sierra Club and Defendant shall seek to resolve informally any claim for costs of litigation (including attorneys' fees), and, if they cannot, will submit that issue to the Court for resolution. An award of fees for activities prior to entry of this Consent Decree by the Court under this Paragraph does not waive Sierra Club's ability to seek recovery for costs of litigation (including attorneys' fees) incurred to monitor and/or enforce the provisions of this Consent Decree.

XXV. SIGNATORIES AND SERVICE

255. Each undersigned representative of Defendant, the State of Iowa, Linn County, and the Sierra Club, and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice, 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.

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

257. 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.

258. Unless otherwise ordered by the Court, the Plaintiffs agree that Defendant is not required to file any answer or other pleading responsive to the concurrently filed Complaint(s) in this matter until and unless the Court expressly declines to enter this Consent Decree, in which

case Defendant shall have no less than 30 Days after receiving notice of such express declination to file an answer or other pleading in response to the Complaints.

XXVI. PUBLIC COMMENT/AGENCY REVIEW

259. The Parties agree and acknowledge that final approval by the United States and entry of this Consent Decree is subject to the procedures of 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 this Consent Decree is inappropriate, improper, or inadequate. Defendant 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 Defendant, in writing, that the United States no longer supports entry of this Consent Decree.

XXVII. TERMINATION

260. Once Defendant has:
- a. completed the requirements of Sections IV (Requirement to Retire, Refuel, or Repower Units), V (NO_x Emission Reductions and Controls), VI (SO₂ Emission Reductions and Controls), VII (PM Emission Reductions and Controls), IX (Environmental Mitigation Projects);
 - b. maintained continuous compliance with this Consent Decree, including continuous operation of all pollution controls required by this Consent Decree, for a period of 24 months;
 - c. paid the civil penalty and any accrued stipulated penalties as required by this Consent Decree;

- d. either included the requirements and limitations enumerated in this Consent Decree into a federally enforceable permit or obtained a site-specific amendment to the Iowa SIP for each plant in the Interstate System, as required by Section XVII (Permits) of this Consent Decree such that the requirements and limitations enumerated in this Consent Decree, including all Unit-specific, plant-specific, and system-specific performance, operational, maintenance, and control technology requirements established by this Consent Decree become and remain “applicable requirements” as that term is defined in 40 C.F.R. Part 70.2; and
- e. certified that the date of Defendant’s Request for Termination is later than December 31, 2027,

Defendant may serve upon the Plaintiffs a Request for Termination of this Consent Decree as a whole, stating that Defendant has satisfied all the requirements of this Paragraph, together with all necessary supporting documentation.

261. Notwithstanding the provisions of Paragraph 260, Defendant may serve upon Plaintiffs a Request for Termination as to Completed Tasks. As soon as Defendant completes a construction project, retirement, or any other requirement of this Consent Decree that is not ongoing or recurring, Defendant may serve upon Plaintiffs a Request for Termination of the provision or provisions of this Consent Decree that imposed the requirement.

262. Following receipt by the Plaintiffs of Defendant’s Request for Termination, the Parties shall confer informally concerning the Request and any disagreement that the Parties may have as to whether the Defendant has satisfactorily complied with the requirements for termination of this Consent Decree. If the United States, after consultation with the other

Plaintiffs, agrees that the Decree may be termination, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Decree.

263. If the United States, after consultation with the other Plaintiffs, does not agree that the Decree may be termination, Defendant may invoke Dispute Resolution under Section XVI of this Decree. However, Defendant shall not seek Dispute Resolution of any dispute regarding termination, under Paragraph 213 of Section XVI, until 60 days after service of its Request for Termination or receipt of an adverse decision from the Plaintiffs, whichever is earlier.

XXVIII. FINAL JUDGMENT

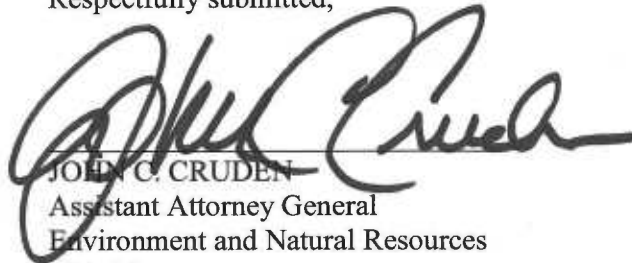
264. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment between the Plaintiffs and the Defendant.

UNITED STATES DISTRICT JUDGE
Northern District of Iowa

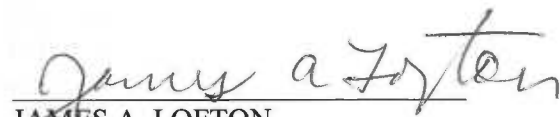
Signature Page for *United States of America et al. v. Interstate Power and Light Company*
Consent Decree

FOR THE UNITED STATES DEPARTMENT OF JUSTICE

Respectfully submitted,



JOHN C. CRUDEN
Assistant Attorney General
Environment and Natural Resources
Division
United States Department of Justice



JAMES A. LOFTON
Counsel to the Chief
Environmental Enforcement Section
Environment and Natural Resources
Division
P.O. Box 7611
Washington, DC 20044-7611
(202) 514-2750



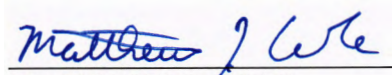
JASON A. DUNN
Senior Attorney
Environmental Enforcement Section
Environment and Natural Resources
Division
P.O. Box 7611
Washington, DC 20044-7611
(202) 514-1111

Signature Page for *United States of America et al. v. Interstate Power and Light Company*
Consent Decree

FOR THE UNITED STATES DEPARTMENT OF JUSTICE

Respectfully submitted,

KEVIN W. TECHAU
United States Attorney
Northern District of Iowa


MATTHEW J. COLE
Chief of the Civil Division
U.S. Attorney's Office
Northern District Of Iowa
111 7th Avenue, SE
Box #1
Cedar Rapids, IA 52401
Phone: (319) 363-6333
Cedar Rapids Fax Line: (319) 363-1990
Cedar Rapids TTY Line: (319) 286-9258

Signature Page for *United States of America et al. v. Interstate Power and Light Company*
Consent Decree

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Respectfully submitted,



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



PHILLIP A. BROOKS
Director, Air Enforcement Division
United States Environmental
Protection Agency



KELLIE ORTEGA
Attorney-Advisor
United States Environmental
Protection Agency
1200 Pennsylvania Ave, N.W. (2242A)
Washington, DC 20460

Signature Page for *United States of America et al. v. Interstate Power and Light Company*
Consent Decree

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Respectfully submitted,



MARK HAGUE
Acting Regional Administrator
U.S. Environmental Protection Agency
Region VII



DAVID COZAD
Regional Counsel
U.S. Environmental Protection Agency
Region VII



SARAH LABODA
Assistant Regional Counsel
U.S. Environmental Protection Agency
Region VII

Signature Page for *United States of America et al. v. Interstate Power and Light Company*
Consent Decree

FOR THE STATE OF IOWA

Respectfully submitted,

THOMAS J. MILLER
ATTORNEY GENERAL
OF THE STATE OF IOWA

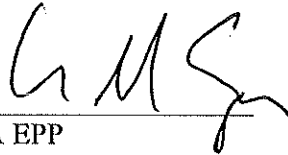
A handwritten signature in black ink, appearing to read "D. Steward", is written over a horizontal line.

DAVID S. STEWARD
Assistant Attorney General
Environmental Law Division
Iowa Department of Justice
Lucas State Office Building
321 E. 12th Street, Ground Flr.
Des Moines, IA 50319
(515) 281-5351

Signature Page for *United States of America et al. v. Interstate Power and Light Company*
Consent Decree

FOR LINN COUNTY, IOWA

Respectfully submitted,

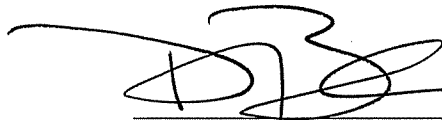
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LISA EPP
Assistant Linn County Attorney
Civil Division
935 2nd Street SW
Cedar Rapids, IA 52402

Signature Page for *United States of America et al. v. Interstate Power and Light Company*
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FOR SIERRA CLUB

By its Counsel:



6/23/15

DAVID C. BENDER
McGillivray Westerberg & Bender LLC
211 S. Paterson Street, Ste 320
Madison, WI 53703

Signature Page for *United States of America et al. v. Interstate Power and Light Company*
Consent Decree

FOR INTERSTATE POWER AND LIGHT COMPANY

Respectfully submitted,

Handwritten signature of Douglas R. Kopp in cursive script.

DOUGLAS R. KOPP

President,
Interstate Power and Light Company

APPENDIX A

ENVIRONMENTAL MITIGATION PROJECTS

I. Overall Schedule and Budget for Environmental Mitigation Projects

- A. Within 120 Days from the Date of Entry of this Consent Decree, as further described below, Defendant shall submit proposed project plan(s) to EPA for review and approval pursuant to Section XIII of the Consent Decree (Review and Approval of Submittals) for completing its Environmental Mitigation Project expenditure commitments over a period of not more than 5 years from the date of plan approval. Defendant shall spend no less than, and nothing in the Consent Decree or this Appendix shall require Defendant to spend any more than, \$6,000,000 in total Project Dollars, consistent with the requirements of this Appendix. The Project Dollars shall be spent on Projects outlined in Sections II through VI of this Appendix. Defendant also may elect to spend Project Dollars on Projects pursuant to Section VII of this Appendix. If in addition to the Project Dollars that it spends pursuant to the Consent Decree, Defendant elects to seek additional funding from another source, Defendant shall, at the time the request for additional funding is made, inform the other funder that it is contributing its Project Dollars pursuant to this Consent Decree. EPA reserves the right to disapprove any of the proposed plans should the Agency determine, based on an analysis of the plans submitted by Defendant and all the potential environmental impacts, that the project is not consistent with the requirements of this Consent Decree. If Defendant opts not to or is unable to perform one of the Projects detailed in Sections II through VI of this Appendix, Defendant shall not have any obligation for such Project pursuant to this Consent Decree, including performance, reporting, or closure requirements for that Project, provided that the Defendant is otherwise in compliance with the Environmental Mitigation Project requirements of this Consent Decree, which may include performing one or more Projects approved by EPA pursuant to Section VII of this Appendix. If Defendant subsequently opts not to perform a Project for which it has submitted a plan that has been approved by EPA, then it shall indicate withdrawal from the Project in its next periodic report pursuant to Paragraph 182 of the Consent Decree.
- B. Defendant may, at its election, consolidate the Project plans for which it is responsible under this Consent Decree into a single plan. Where expressly authorized in the Project descriptions in Sections II – VII, upon approval of EPA of its project plan, Defendant may complete, in whole or in part, the Project through a third-party non-profit organization or through a foundation to which Defendant would provide the funds required for the implementation or funding of the Project(s), provided that Defendant limits the use of Project Dollars for any third-party administrative expenses associated with implementation of the Project to no greater than 10% of the

Project Dollars that Defendant provides to the third-party.

- C. The Parties agree that Defendant is entitled to spread its payments for Environmental Mitigation Projects over the 5-year period commencing upon the date of plan approval. Defendant is not, however, precluded from accelerating payments to better effectuate a proposed mitigation plan, provided that the Defendant shall not be entitled to any reduction in the nominal amount of the required payments by virtue of the early expenditures.
- D. All proposed project plans shall include the following:
 - 1. A plan for implementing the project;
 - 2. A summary level budget for the project;
 - 3. A time line for implementation of the project;
 - 4. A description of the anticipated environmental benefits of the project, including an estimate of any emission reductions or emission mitigation (*e.g.*, SO₂, NO_x, PM, CO₂) expected to be realized, and the methodology and any calculations used in the derivation of such expected benefits, reductions, or mitigation; and
 - 5. For each Project undertaken, a certification, as part of each plan submitted to EPA for the Project, that prior to the Date of Lodging of this Consent Decree, Defendant had not otherwise committed to perform the Project generally described in the plan, that Defendant is unaware of any other person who is committed to perform the same Project, and that Defendant will not use any portion of the Project to satisfy any obligations that it may have under other applicable requirements of law, including but not limited to any applicable renewable or energy efficiency portfolio standards.
- E. Upon EPA approval of the Project plan(s) required by this Appendix, Defendant shall complete the approved Projects according to the approved plan(s). Nothing in this Consent Decree shall be interpreted to prohibit Defendant from completing the Projects ahead of schedule.
- F. Commencing with the first periodic report due pursuant to Section XII (Periodic Reporting) of the Consent Decree, and continuing biannually thereafter until completion of the Project(s), Defendant shall include in the periodic report information describing the progress of the Project and the Project Dollars expended on the Project.
- G. In accordance with the requirements of Paragraph 170 of the Consent Decree, within

90 Days following the completion of each Project, Defendant shall submit to EPA for approval of Project closure, a Project completion report that documents:

1. The date the Project was completed;
2. The results and documentation of implementation of the Project, including an estimate of any emission reductions or emission mitigation (*e.g.*, SO₂, NO_x, PM, CO₂) expected to be realized, and the methodology and any calculations used in the derivation of such expected benefits, reductions, or mitigation;
3. The Project Dollars incurred by Defendant in implementing the Project; and
4. Certification by an authorized representative in accordance with Paragraph 185 of the Consent Decree that the Project has been completed in full satisfaction of the requirements of the Consent Decree and this Appendix.

H. If EPA (after consultation with the other Plaintiffs) concludes based on the Project completion report or subsequent information provided by Defendant that a Project has been performed and completed in accordance with the Consent Decree, then EPA will approve completion of the Project for purposes of the Consent Decree.

I. Nothing in this Appendix shall relieve Defendant of its obligation to comply with all applicable federal, state, and local laws and regulations, including, but not limited to, any obligations to obtain any permits pursuant to the Clean Water Act or Clean Air Act.

II. Major Solar Photovoltaic Development Project (Up to \$3 million)

A. Consistent with the requirements of this Appendix, Defendant may propose a plan to spend up to \$3 million to develop new major solar photovoltaic (“PV”) installation(s) of at least 500 kilowatts (“kW”) rated nameplate capacity (direct current) in Defendant’s service territory in the state of Iowa (the “Solar Project” or the “Project”). Defendant will own, operate and maintain the Project and will enter into an agreement with a third-party project developer (the “Project Developer”) to design and construct the Project. As required by Paragraph 166 of the Consent Decree, such Projects shall be in addition to any other legal obligations, including Defendant’s obligations under any state Renewable Portfolio Standard (“RPS”). Producing additional generation from renewable solar power is expected to offset coal generation.

B. Prior to implementation of the Project, Defendant shall complete, or shall ensure the completion of, a solar PV feasibility of any prospective siting area. One prospective siting area for the Project is Defendant’s Sixth Street Generating Station in Cedar Rapids, Iowa.

- C. For purposes of calculating Project Dollars, Project Dollar credit shall exclude the cost of any Project studies or feasibility analysis, and any maintenance or third-party management costs once the Project is interconnected and providing generation. In addition, Project Dollar credit shall reflect the difference between Defendant's cost in implementing the Project and any economic benefit resulting from the Project during the first 10 years of performance (as measured from the day that power is first provided from the Project) (the "Initial 10 Years").
- D. Defendant shall not use and will retire all Renewable Energy Credits generated during the Initial 10 Years in accordance with all applicable rules, and shall identify these RECs as retired in the Midwest Renewable Energy Tracking System ("M-RETS") or any other tracking system designated as acceptable by the program recognizing the RECs. Defendant shall not use the RECs generated during the Initial 10 Years of the PPA(s) for compliance with any RPS or for any other compliance purpose during or after the Initial 10 Years. Defendant may use any RECs generated after the initial 10 Years of the PPA(s) for compliance with any RPS or for any other compliance purpose.
- E. The Project shall be considered completed for purposes of this Consent Decree after the Initial 10 Years. Following the Initial 10 Years, Defendant will no longer be bound by the terms governing Environmental Mitigation Projects identified in Section IX of the Consent Decree and this Appendix, including but not limited to limitations on the use of RECs. RECs generated following the Initial 10 Years may be used for any purpose authorized by law, including but not limited to satisfying regulatory requirements or sales of RECs.
- F. In addition to the requirements of Section I of this Appendix, the plan required to be submitted pursuant to this Section of this Appendix shall satisfy the following criteria:
 - 1. Demonstrate how the proposed project in the plan is consistent with the requirements of this Section and the Consent Decree, and how the project will result in the emission reductions projected to be reduced pursuant to this Section.
 - 2. Provide that Defendant will issue requests for proposals ("RFP(s)") as quickly as practicable and enter into contract(s) with one or more Project Developers as quickly as practicable, but no later than 3 years after the date of plan approval.
 - 3. Include an anticipated schedule for issuing RFP for the project and an overall schedule for implementing this project.

4. Describe the process that Defendant will use to solicit bids for the project and select appropriate PV development(s) to participate in the project.
 5. Specify that the RFP(s) shall provide that each major solar PV development will have at least 500 kW of capacity (direct current) and will be interconnected with the utility grid with appropriate metering and monitoring to track the net power output and identify the expected capacity (kW) and energy output of the major PV development(s) within five years of plan approval.
 6. Specify that Defendant will evaluate bids using criteria that include and prioritize:
 - i. The cost-effectiveness of the project, measured by the proposed cost of the project and the expected energy delivery and environmental benefits of the project.
 - ii. The timeframe for completion of construction and interconnection of the project, which shall be no later than within five years of plan approval, but which may be earlier.
 7. Provide that Defendant shall report the actual kW hours generated each year for the Initial 10 Years in each report required by Section I.F of this Appendix.
- G. In addition to the information required to be included in the reports pursuant to Section I.F of this Appendix, Defendant shall include in each report progress in developing the project (including with respect to the RFP process, construction, interconnection, and generation), identification of the Project Developer(s) and any other third-parties who would have a coordination or project management role, an accounting of Project Dollar expenditures, details of the major PV developments including the total capacity (kW) of each system, components installed, total cost, expected energy output and environmental benefits, and the actual kW hours generated for the Initial 10 Years.

III. Anaerobic Digestion Installation Project (Up to \$ 3 million)

- A. Consistent with the requirements of this Appendix, Defendant may propose a plan to spend up to \$3 million to develop a new or expand an existing Anaerobic Digester with Nutrient Recovery or Nutrient Removal (the “Anaerobic Digester with Nutrient Recovery/Removal Installation Project(s)” or the “Project(s)”) at, one or more farm(s) or other agricultural facilities, properties, or operations, including those at or associated with universities (individually, or collectively, the “Project Beneficiar(y)(ies)”) at any location within the State of Iowa. Defendant shall

implement the Project(s) as described below. As required by Paragraph 166 of the Consent Decree, such Projects shall be in addition to any other legal obligations, including Defendant's obligations under any state RPS. Producing additional generation from an Anaerobic Digester is expected to offset coal generation.

B. Definitions:

1. "Anaerobic Digestion" is a biological process in which bacteria break down organic matter in the absence of oxygen.
2. An "Anaerobic Biodigester" or "Anaerobic Digester" is an airtight chamber in which Anaerobic Digestion of manure, biosolids, food waste, other organic wastewater streams or a combination of these feedstocks occurs. This process produces commodities such as biogas (a blend of methane and carbon dioxide), animal bedding, and fertilizer.
3. "Nutrient Recovery" is the recovery of stable and useful nutrient-containing products from wastewater and solids, including anaerobically digested manure.
4. "Nutrient Removal" is the reduction, elimination, or rendering insoluble of nutrient constituents in wastewater and solids, including anaerobically digested manure.
5. "Nutrient Recovery and Nutrient Removal Products" are organic and inorganic liquid and/or solid materials either produced with a Nutrient Recovery technology, or remaining after Nutrient Removal technologies or processes have been employed, after Anaerobic Digestion.

- C. An Anaerobic Digester with Nutrient Recovery/Removal Installation Project will, at a minimum, consist of: (1) the installation of the Anaerobic Digester system, which includes the digester, engine-generator set, and all related piping, pumps, and controls at a single location with planned biomass feedstock access, producing a total installed capacity of at least 150 kW alternating current; (2) the appropriate Anaerobic Digester system foundation and structural equipment for the Project site location; (3) wiring, conduit, and associated switch gear and metering equipment required for interconnecting the anaerobic digester system generator(s) to the utility grid; (4) digestate storage and feedstock storage (if the Project accepts off-site feedstocks) that minimizes, to the greatest extent practicable, any loss of feedstock or digestate to the environment; (5) technology for Nutrient Recovery or Nutrient Removal; (6) appropriate monitoring equipment and controls to enable staff tracking and monitoring of the total and hourly energy output of the system (kW hours), hourly digester temperature (oC), biogas production and appropriate voltage, power, and current metrics; (7) monitoring system and data collection to track and monitor

- Nutrient Recovery or Nutrient Removal effectiveness, including total volume of feedstock digested, total volume of digester outputs treated, nutrient recovery/removal efficiencies, and nutrient content ratio of generated products, and data shall be made available to the EPA; (8) a contingency plan for fate of nutrients in the event of system failure (i.e., enough crop-land on-site for agronomic application of digester outputs); and (9) a plan for the disposition or use of the digestate that prevents migration of nutrients into any waters of the State or waters of the United States.
- D. The Project(s) shall be installed on the customer side of the meter and ownership of the system, and any environmental benefits that result from the installation of the Project(s), including associated RECs, shall be conveyed to the Project Beneficiary. For example, the Project Beneficiary may utilize Nutrient Recovery and Nutrient Removal Products, or a portion of untreated digestate, on land areas owned by or under its control, providing usage is consistent with nutrient management practices that ensure appropriate agricultural utilization of the nutrients. The Project Beneficiary may also sell or otherwise transfer some or all of the Nutrient Recovery and Nutrient Removal Product, provided that the Project Beneficiary provides the recipient with the most current nutrient analysis and maintains records of the date, name and address, and the approximate amount sold to the recipient.
- E. Defendant shall ensure that there is a warranty in place for the major subcomponents of the Project(s), which, at a minimum, covers the digester design for 10 years, digester equipment for 3 years, and engine-generator set for 1 year (individually, or collectively, the “Parts Warrant(y)(ies)”).
- F. Defendant shall fund one or more service contracts (“Project Service Contract(s)”) for the benefit of the Project Beneficiary that provides for operation and maintenance of the Project(s) for 20 years from the date of operation. The Project Service Contract(s) shall, at a minimum, provide for annual system checkups and for normal component maintenance and replacements, including installation of new system components as needed to ensure the ongoing maintenance and performance of the system for no less than 20 years. Defendant shall fund the Project Service Contract through an escrow in aggregate amount equal to 50% of the anticipated operation and maintenance of the Project(s) for 20 years (the “Project Escrow”). Defendant shall ensure that the Project Beneficiary has a binding obligation to fund or otherwise secure the funding for the remaining 50% of the operation and maintenance of the Project(s) from the date of operation.
- G. Defendant shall limit the use of the Project Escrow funds by the Project Beneficiary to use for purposes of maintaining the Project(s).
- H. Services under the Project Service Contract may be performed by third-party provider(s) and administered by the Project Beneficiary by way of payment from the

Project Escrow. Other than with respect to its funding of the escrow, Defendant is not responsible for any repair and maintenance costs for the Project(s).

- I. In addition to the requirements of Section I of this Appendix, the plan required to be submitted pursuant to this Section of this Appendix shall satisfy the following criteria:
1. Describe how the proposed project is consistent with the requirements of this Section and the Consent Decree, will result in the emission reductions projected to be reduced pursuant to this Section, and how the how Defendant shall maintain that the emissions avoided or reduced by the project shall be maintained.
 2. Include a feasibility study that analyzes the technical and financial viability of any proposed project and identifies any additional sources of funding.
 3. Include a budget and schedule for completing each project on a phased schedule (if applicable), and the supporting methodologies and calculations for the budget.
 4. Describe the methodology and include any calculations that Defendant proposes to use in order to document the emission reductions associated with any project to be implemented as part of this Section.
 5. Describe the process and criteria Defendant will use to select the potential Project Beneficiaries, including such factors as base electricity usage, anaerobic digester feedstock access availability, and other relevant criteria.
 6. Provide detailed accounting supporting the costs and activities associated with the Project Service Contract, including the schedule and monetary installments for deposits to the Project Escrow to support the operation and maintenance activities of the system and a demonstration that the Project Escrow includes appropriate restrictions on the Service Contract Beneficiary's use of escrow funds in accordance with the requirements of this Section.
 7. Identify any person or entity, other than Defendant, that will be involved in the project(s) and describe the third-party's role in the project and the basis for asserting that such entity is able and suited to perform the intended role. Any proposed third-party must be legally authorized to perform the proposed role and to receive Project Dollars. This does not include contractors or installers who would complete the siting analysis and/or installation of the proposed project but does include any proposed affiliate or third party who would have a coordination or project management role in the project.
 8. Identify the expected nameplate capacity (kilowatts) and energy output of each system.
- J. In addition to the information required to be included in the report pursuant to Section I.F of this Appendix, Defendant shall include in each report progress in developing the project (including with respect to the RFP process, construction, interconnection, and generation), identification of the locations where the Projects were installed and any other third-parties who would have a role in the Project, an accounting of Project Dollar expenditures, details of the major Project developments including the total capacity (kW) of each system, components installed, total cost, expected energy output and environmental benefits, and the actual kW hours generated.

IV. Fleet Replacement Program (Up to \$500,000)

- A. Consistent with the requirements of this Appendix, Defendant may propose to spend up to \$500,000 to replace its or publicly owned gasoline and diesel powered fleet vehicles (passenger cars, light trucks, and heavy duty service vehicles) with newly manufactured Alternative Fuels Vehicles (as defined below) and/or compressed natural gas (“CNG”) vehicles. The replacement of gasoline and diesel vehicles with such vehicles will reduce emissions of NO_x, PM, VOCs, and other air pollutants. Such vehicles shall be owned by Defendant or shall be publicly-owned motor vehicles.
- B. Definitions:
1. “Alternative Fuels Vehicle” means a Hybrid Vehicle, Plug-in Hybrid Vehicle, Plug-in Battery Vehicle, or Electric Vehicle.
 2. “Hybrid Vehicle” means a vehicle that can generate, store, and utilize electric power to reduce the vehicle’s consumption of fossil fuel.
 3. “Plug-in Hybrid Vehicle” means a vehicle that can be charged from an external source and can generate, store, and utilize electric power to reduce the vehicle’s consumption of fossil fuel. These vehicles typically include a larger battery pack to allow an extended range of operation without the use of the gasoline or diesel engine.
 4. “Plug-in Battery Vehicle” means a vehicle that does not utilize an internal combustion engine and instead relies entirely on battery power for propulsion.
- C. With respect to costs associated with vehicles, Defendant shall only receive credit toward Project Dollars for the incremental cost of Alternative Fuels Vehicles or CNG Vehicles, as compared to the cost of a newly manufactured, similar motor vehicle powered by conventional diesel or gasoline engines.
- D. In addition to the requirements of Section I of this Appendix, the plan required to be submitted pursuant to this Section of this Appendix shall satisfy the following criteria:
1. Describe how the plan is consistent with the requirements of this Section and the Consent Decree, and how the project will result in the emission reductions projected to be reduced pursuant to this Section.
 2. Prioritize the replacement or retrofit of diesel powered vehicles to the greatest extent practical and available.

3. Identify the portions of Defendant's fleet and/or publicly-owned fleets in Defendant's service territory for participation in this project.
4. Provide that all vehicles proposed for inclusion in this program will be regular production models that meet all applicable engine standards, certifications, or verifications.
5. Describe the process and criteria Defendant will use to select any fleet operators and owners to participate in the program, consistent with the requirements of this Section.
6. Describe the rationale and basis (including a discussion of cost) for selecting the make and model of the Alternative Fuel Vehicle(s), CNG Vehicle(s) chosen for this project, including information about other available vehicles and why such vehicles were not selected.
7. Specify a mechanism for each replaced vehicle to be properly disposed, which must include destruction of the engine block, and provide certification of proper disposal.
8. Propose a method to account for the amount of Project Dollars that will be credited for each replaced vehicle, in accordance with the requirements of this Section.
9. Certify that the replacement program vehicles will be retained and operated for their useful life.
10. Identify any person or entity, other than Defendant, that will be involved in the project, including any proposed third-party who would have a coordination or project management role, but not including vehicle manufacturers or dealers who would provide vehicles.

V. Coal-Fired Boiler Replacement in Schools (up to \$1.5 million)

- A. Schools within Iowa may use coal-fired boilers for heat generation. Replacement of those boilers with lower-emitting or zero emission heating and cooling technologies will reduce emissions of SO₂, PM, and other air pollutants being emitted in the vicinity of children and young adults. Consistent with the requirements of this Appendix, Defendant may provide up to \$1.5 million in funding for use in the replacement (including design, equipment purchase, installation, and project start up) of one or more coal-fired boilers utilized by public schools located in Iowa through installation of a natural gas boiler or geothermal technologies ("Boiler Project" or the "Project").

- B. In addition to the requirements of Section I of this Appendix, the plan required to be submitted pursuant to this Section of this Appendix shall satisfy the following criteria:
1. Describe the process Defendant will utilize to identify public schools that may be eligible to participate in the Boiler Project and to solicit their interest in participating in the Project. In awarding funding, Defendant shall consider the following factors: (1) capability of the school to participate in, complete, and operate a replacement project; (2) proximity of the school to the Defendant's facilities in the state of Iowa; (3) emissions reductions that will result from the Project; and (4) experience and demonstrated interest of applicant.
 2. Ensure that participating schools do not otherwise have a legal obligation to reduce emissions through replacement of their coal-fired boilers.
 3. Ensure that participating schools will bind themselves to operate the replacement heating and cooling systems for either the reasonable lifespan of the replacement system or of the school, which shall be for at least ten years.
 4. Provide a schedule for completing each portion of the project, including solicitation of interest, preparation of project budgets, and completion of the project.
 5. If Defendant is funding only part of the full replacement cost of the boiler, provide a demonstration of secured sources of funding for the remainder of the cost of the replacement.
 6. Describe generally the expected environmental benefits of the project, including any fuel efficiency improvements, and quantify emissions reductions expected.

VI. Residential Wood-burning Appliance Change-Out Program (Up to \$1.5 million)

- A. Consistent with the requirements of this Appendix, Defendant may propose a plan to spend up to \$1.5 million to sponsor a wood burning appliance (*e.g.*, stoves, boilers and fireplaces) replacement and retrofit program that would be implemented by one or more third-party nonprofit organizations or a government entity (the "Program").
- B. Defendant shall sponsor the implementation of the Program within Defendant's service territories in Linn County and within Defendant's extended service territories in the state of Iowa.
- C. The air pollutant reductions shall be obtained by replacing, retrofitting, or upgrading

inefficient, higher polluting wood burning appliances, including fireplaces, with cleaner burning appliances and technologies, such as: (1) retrofitting older hydronic heaters (aka outdoor wood boilers) to meet EPA Phase II hydronic heater standards; (2) replacing older hydronic heaters with EPA Phase II hydronic heaters, EPA-certified woodstoves, other cleaner burning, more energy efficient hearth appliances (e.g., wood pellet, gas or propane appliances), or EPA Energy Star qualified heating appliances; (3) replacing non EPA-certified woodstoves with EPA-certified woodstoves or cleaner burning, more energy-efficient hearth appliances; (4) replacing spent catalysts in EPA-certified woodstoves; and (5) replacing/retrofitting wood burning fireplaces with EPA Phase 2 Qualified Retrofit devices or cleaner burning natural gas fireplaces. To qualify for replacement, retrofitting, or upgrading, the wood burning appliance/fireplace must be in regular use in a primary residence during the home-heating season, and preference shall be given to replacement, retrofitting, or upgrading wood burning appliances/fireplaces that are a primary or significant source of residential heat. The appliances that are replaced under the Program shall be permanently removed from use and appropriately disposed.

- D. Defendant and the nonprofit organization(s) or government entity that will implement the Program shall consult with EPA's Residential Wood Smoke Reduction Team and shall implement the Program consistent with the materials available on EPA's Burn Wise website at <http://www.epa.gov/burnwise>.
- E. The Program shall provide incentives for the wood burning appliance and fireplace replacements, retrofits, and upgrades described above in this Section through rebates, vouchers, and/or discounts. A wood moisture meter shall be provided to every Program participant that receives a new wood-burning appliance or retrofits an existing wood-burning appliance.
- F. The Program shall provide educational information and outreach regarding the energy efficiency, health, and safety benefits of cleaner wood burning appliances and the proper operation of appliances including, if applicable, information related to the importance of burning dry seasoned wood. The costs associated with this element of the Program shall count towards Project Dollars and will not be considered part of the 10% administrative costs described in Section I.B; however, the costs associated with this element of the Program shall be marginal as compared to the total Project Dollars attributed to the Program.
- G. In addition to the requirements of Section I of this Appendix, the Program plan proposed by Defendant shall:
 - 1. Describe how the plan is consistent with the requirements of this Section and the Consent Decree, and how the project will result in the emission reductions projected to be reduced pursuant to this Section.

2. Identify the governmental entity or nonprofit organization(s) that have agreed to implement the proposed Program.
3. Describe the schedule and the budgetary increments in which Defendant shall provide the necessary funding to implement the proposed Program.
4. Describe all of the elements of the proposed Program, including measures, to ensure that it is implemented in accordance with the requirements of this Appendix, and that the Program Dollars will be used to support the actual replacement, retrofitting, and/or upgrading of wood burning appliances and fireplaces currently in regular use in a primary residence during the home-heating season.
5. An estimate of the number and type of appliances the Defendant intends to subsidize or make available through the project, the cost per unit, and the value of the rebate or incentive per unit. In addition, if the plan proposes to provide rebates or vouchers for the full cost of replacing older hydronic heaters or non EPA-certified woodstoves for income-qualified residential homeowners, describe the criteria that will be used to determine which residential homeowners should be eligible for such full cost replacement.
6. If applicable, identify any organizations or entities with which the governmental entity or nonprofit organization(s) will partner to implement the proposed Program, including wood burning appliance trade associations, national or local health organizations, facilities that will dispose of old stoves so that they cannot be resold or reused, individual woodstove/fireplace retailers, propane dealers, housing assistance agencies, local fire departments, and local green energy organizations.
7. Describe how the program will ensure the inefficient, higher polluting wood burning stoves and fireplaces that are replaced under the proposed Program will be properly recycled or disposed.
8. Describe how the government entity or nonprofit organization(s) will conduct outreach within the geographic area of the proposed Program.

VII. Unspent Project Dollars

- A. If, as of 5 years from Date of Entry of this Consent Decree, there are any funds allocated for Defendant's Project Dollar obligations to comply with the requirements in Section IX (Environmental Mitigation Projects) and this Appendix of the Consent Decree that have not been expended, and are not expected to be expended ("Unspent Project Dollars"), Defendant may, upon approval of EPA (in consultation with the other Plaintiffs), allocate those "Unspent Project Dollars" towards another of the

Projects specified in Sections II, III, V, or VI of this Appendix. Defendant shall provide notice pursuant to Section XIX (Notices) and Section XIII (Review and Approval of Submittals) of the Consent Decree of the amount of such Unspent Project Dollars and provide a proposed plan and schedule for one or more new Environmental Mitigation Projects to satisfy the requirements of this Consent Decree.

B. In addition to the requirements of Section I of this Appendix, the plan required to be submitted pursuant to this Section of this Appendix shall satisfy the following criteria:

1. Provide for the expenditure of all remaining Unspent Project Dollars.
2. Describe the reason all remaining Unspent Project Dollars have not been allocated and/or spent.
3. Describe how the proposed projects in the plan are consistent with the requirements of this Section and the Consent Decree, and how the projects will result in the emission reductions projected to be reduced pursuant to this Section.
4. Include a budget and schedule for completing the project on a phased schedule, and the supporting methodologies and calculations for the budget.