Attachment 1 to: Joint Motion to Enter Consent Decree, Alabama *et al*. v. Tennessee Valley Auth., No. 3:11-cv-00170 and 171 (consolidated) (E.D. Tenn. filed April 14, 2011)

Consent Decree

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TENNESSEE
AT KNOXVILLE

STATE OF ALABAMA AND THE ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, COMMONWEALTH OF KENTUCKY, STATE OF NORTH CAROLINA *ex rel.* ATTORNEY GENERAL ROY COOPER, and STATE OF TENNESSEE, Plaintiffs, v. TENNESSEE VALLEY AUTHORITY Defendant	Civil Action No. 3:11-cv-00170 (Lead Case)

NATIONAL PARKS CONSERVATION ASSOCIATION, INC., SIERRA CLUB, and OUR CHILDREN'S EARTH FOUNDATION, Plaintiffs, v. TENNESSEE VALLEY AUTHORITY Defendant	Civil Action No. 3:11-cv-00171 (Consolidated Case)

CONSENT DECREE

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EXHIBIT 1 – FEDERAL FACILITIES COMPLIANCE AGREEMENT

EXHIBIT 2 – CONSENT AGREEMENT AND FINAL ORDER

WHEREAS, the States of Alabama, North Carolina, and Tennessee and the Commonwealth of Kentucky (collectively the "States"), have jointly filed a complaint for injunctive relief and civil penalties pursuant to Ala. Code § 22-22A-5(18), (19), Ky. Rev. Stat. §§ 224.99-010 to -020, Tenn. Code Ann. §§ 68-201-111, -115(b)(5), -117, and Section 304 of the Clean Air Act (the "Act"), 42 U.S.C. § 7604, alleging that Defendant Tennessee Valley Authority ("TVA") made major modifications to major emitting facilities, and failed to obtain the necessary permits and install the controls necessary under the Prevention of Significant Deterioration ("PSD") and Nonattainment New Source Review ("Nonattainment NSR") provisions of the Act and the federally approved and enforceable State Implementation Plans ("SIPs") for Alabama, Kentucky, and Tennessee, to reduce emissions of oxides of nitrogen (NO_x), sulfur dioxide (SO_2), and/or particulate matter ("PM"); further alleging related claims under the New Source Performance Standards, minor new source review ("minor NSR"), and Title V programs; and further alleging that such emissions damage human health and the environment;

WHEREAS, National Parks Conservation Association, Sierra Club, and Our Children's Earth Foundation (collectively the "Citizen Plaintiffs") have jointly filed a complaint for injunctive and declaratory relief and civil penalties pursuant to the federal Clean Air Act, 42 U.S.C. §§ 7401 through 7671q, alleging that TVA made major modifications to major emitting facilities and failed to obtain the necessary permits and install the controls necessary under the PSD and Nonattainment NSR provisions of the Act and the EPA-approved SIPs for the States of Alabama and Tennessee, and the Commonwealth of Kentucky to reduce emissions of NO_x, SO_2,

and/or PM and further alleging related claims under the New Source Performance Standards and minor NSR;

WHEREAS, on November 10, 2004, the State of North Carolina gave notice to TVA and other required parties, pursuant to Section 304 of the Act, 42 U.S.C. § 7604, of its intent to sue TVA regarding the same alleged violations that EPA had alleged in an administrative compliance order that EPA had issued to TVA first on November 3, 1999, and which was subsequently amended several times, including on April 10, 2000,

WHEREAS, on October 30, 2000, December 13, 2000, July 21, 2003, and September 30, 2008, to the extent it was necessary, the Citizen Plaintiffs gave notice to TVA and other required parties pursuant to Section 304 of the Act, 42 U.S.C. § 7604, of their intent to sue TVA regarding the claims alleged in their complaint;

WHEREAS, the States' complaint alleges, inter alia, claims upon which relief can be granted against TVA pursuant to Ala. Code § 22-22A-5(18), (19), Ky. Rev. Stat. §§ 224.99-010 to -020, Tenn. Code Ann. §§ 68-201-111, -115(b)(5), -117, Section 304 of the Act, 42 U.S.C. § 304, and 28 U.S.C. § 1355;

WHEREAS, the Citizen Plaintiffs' complaint alleges claims upon which relief can be granted against TVA pursuant to the Clean Air Act's PSD program, 42 U.S.C. §§ 7470-7492, Nonattainment NSR program, 42 U.S.C. §§ 7501-7515, New Source Performance Standards, 42 U.S.C. § 7411, NSPS Subparts A and Da, 40 C.F.R. § 60.1 et seq., 40 C.F.R. § 60.40a et seq., minor NSR, the EPA-approved SIPs for the States of Tennessee and Alabama, and the Commonwealth of Kentucky, and 28 U.S.C. § 1355;

WHEREAS, EPA issued an administrative compliance order to TVA pursuant to Sections 113 and 167 of the Act, 42 U.S.C. §§ 7413, 7477, alleging that TVA violated, inter alia, the PSD and Nonattainment NSR programs of the Act, its implementing regulations, and the relevant SIPs at several of the coal-fired electric generating units that TVA owns and operates when it made certain physical changes without obtaining the necessary permits and installing the controls necessary to reduce emissions of NO_x, SO_2, and PM;

WHEREAS, in the administrative compliance order, EPA directed TVA to come into compliance with the Act;

WHEREAS, the United States Environmental Appeals Board ("EAB") issued a Final Order on Reconsideration in In re Tennessee Valley Auth., 9 E.A.D 357 (EAB 2000), in which it found that TVA had violated the PSD and Nonattainment NSR programs of the Act, its implementing regulations, and the relevant SIPs, and directed TVA to come into compliance with the Act;

WHEREAS, TVA petitioned for review of the administrative compliance order and the EAB's Final Order on Reconsideration in the United States Court of Appeals for the Eleventh Circuit, which concluded that EPA's administrative proceedings, and the Act provisions under which the order was issued, violated due process, Tennessee Valley Auth. v. Whitman, 336 F.3d 1236, 1244, 1260 (11th Cir. 2003), cert. denied, 541 U.S. 1030 (2004); Brief for Respondent in Opposition to a Writ of Certiorari ("Brief for Respondent") at 4, National Parks Conservation Ass'n et al. v. Tennessee Valley Auth., 554 U.S. 917 (2008) (No. 07-867), and which then held that the unconstitutionality of the Clean Air Act provision meant that EPA's order was not a

"final agency action" and that the court of appeals therefore lacked jurisdiction to review it, see Brief for Respondent at 4 (citing Whitman, 336 F.3d at 1248, 1260);

WHEREAS, through a Clean Air Act Federal Facilities Compliance Agreement ("Compliance Agreement"), In re Tennessee Valley Auth., Docket No. CAA-04-2010-1760 (Exhibit 1 to this Consent Decree), and a Consent Agreement and Final Order, In re Tennessee Valley Auth., Docket No. CAA-04-2010-1528(b) (Exhibit 2 to this Consent Decree), EPA and TVA are resolving the violations alleged in the amended administrative compliance order and the Final Order on Reconsideration;

WHEREAS, when entered, this Consent Decree will secure by way of injunction the same relief as the Compliance Agreement and that, therefore, TVA's operations will be governed by both the Compliance Agreement and this Consent Decree;

WHEREAS, the States, Citizen Plaintiffs, and TVA (the "Parties") anticipate that this Consent Decree (and EPA and TVA anticipate that the Compliance Agreement), including the installation and operation of pollution control technology and other measures adopted pursuant to this Consent Decree and the Compliance Agreement, will achieve significant reductions of emissions from the TVA System and thereby significantly improve air quality;

WHEREAS, TVA is now undertaking a process to transform itself into a cleaner power system by reducing emissions from its coal-fired power plants, by retiring some coal-fired units, and by relying more on lower-emitting or non-emitting generation like natural gas and nuclear units and energy-efficiency and demand response programs;

WHEREAS, TVA disagreed with, and continues to disagree with, the allegations of the administrative compliance order and the findings of fact and conclusions of law of the Final Order on Reconsideration by the EAB, and denies that it violated the Act as so alleged and found (see Whitman, 336 F.3d at 1244-45);

WHEREAS, TVA wishes to resolve, without the uncertainty and expense associated with further litigation, the claims of EPA and other parties that it has violated any provisions of the Act's PSD, Nonattainment NSR, New Source Performance Standards ("NSPS"), minor NSR, or (to the extent related to such PSD, Nonattainment NSR, NSPS, and minor NSR claims) Title V Operating Permit programs by way of the activities identified in the administrative compliance order and/or the complaints or other similar activities TVA has conducted at its coal-fired electricity generating plants;

WHEREAS, as specified in Paragraph 158 of this Consent Decree, TVA has agreed to an expedited schedule to obtain the appropriate Clean Water Act National Pollutant Discharge Elimination System permits for the wastewater discharges from its flue gas desulfurization ("FGD") systems should EPA promulgate a final rule containing revisions to the Effluent Limitations Guidelines;

WHEREAS, TVA plans to seek public review and comment during the environmental reviews conducted pursuant to the National Environmental Policy Act for the construction and operation of any combustion turbine and combined cycle electric generating plants it proposes to add to its system; and

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

NOW, THEREFORE, without any admission by TVA, and without adjudication of the violations alleged in the complaints, 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, 1355, and 1367, and Section 304 of the Clean Air Act (the "Act"), 42 U.S.C. § 7604. Solely for purposes of this Consent Decree, venue is proper under 28 U.S.C. §§ 1391(b) and (c) and 1395. Solely for purposes of this Consent Decree and the underlying complaints, and for no other purpose, TVA waives all objections and defenses that it may have to the Court's jurisdiction over this action, to the Court's jurisdiction over TVA, and to venue in this District. TVA shall not challenge the terms of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree. Solely for purposes of the complaints filed by the Plaintiffs in this matter and resolved by this Consent Decree, for the purposes of entry and enforcement of this Consent Decree, and for no other purpose, TVA waives any defense or objection based on standing. Except as expressly provided herein, this

Consent Decree shall not create any rights in or obligations of any party other than the Plaintiffs and TVA.

II. PARTIES BOUND

2. Upon entry, the provisions of this Consent Decree shall apply to and be binding upon the Parties and their successors and assigns, and TVA's officers, employees and agents, solely in their capacities as such.

III. COMPLIANCE PROGRAM

3. TVA shall be responsible for providing a copy of this Consent Decree to all vendors, suppliers, consultants, contractors, agents, and any other company or other organization retained to perform any of the work required by this Consent Decree. Notwithstanding any retention of contractors, subcontractors, or agents to perform any work required under this Consent Decree, TVA shall be responsible for ensuring that all work is performed in accordance with the requirements of this Consent Decree. For this reason, in any action to enforce this Consent Decree, TVA 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, unless TVA establishes that such failure resulted from a Force Majeure Event, as defined in Paragraph 166 of this Consent Decree.

A. DEFINITIONS

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

regulations implementing the Act shall mean in this Consent Decree what such term means under the Act or those implementing regulations.

5. "Alabama" means the State of Alabama, Alabama Department of Environmental Management.

6. "Baghouse" means a full stream (fabric filter) particulate emissions control device.

7. "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 (Nov. 25, 1986) and attachments thereto.

8. "Capital Expenditure" means all capital expenditures, as defined by Generally Accepted Accounting Principles as those principles exist as of the Date of Lodging of this Consent Decree, excluding the cost of installing or upgrading pollution control devices.

9. "Citizen Plaintiffs" means, collectively, National Parks Conservation Association, Sierra Club, and Our Children's Earth Foundation.

10. "CEMS" means, for obligations involving NO_x and SO_2 under this Consent Decree, the devices defined in 40 C.F.R. § 72.2 and installed and maintained as required by 40 C.F.R. Part 75, and for obligations involving PM, the continuous emission monitors installed and maintained as described in 40 C.F.R. § 60.49Da(v).

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

12. "Compliance Agreement" or "Federal Facilities Compliance Agreement" means the Clean Air Act agreement entered into between EPA and TVA, Docket No. CAA-04-2010-1760, and which is Exhibit 1 to this Consent Decree.

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

14. "Consent Decree Obligation Date" means the Effective Date of the Compliance Agreement, as the term "Effective Date" is defined in the Compliance Agreement, which date is June 13, 2011.

15. "Continuously Operate" or "Continuous Operation" means that when a pollution control technology or combustion control is used at a Unit (including, but not limited to, SCR, FGD, PM Control Device, SNCR, Low NO_x Burner ("LNB"), Overfire Air ("OFA") or Separated Overfire Air ("SOFA")), it shall be operated at all times such Unit is in operation (except during a Malfunction that is determined to be a Force Majeure Event), so as to minimize emissions to the greatest extent technically practicable consistent with the technological limitations, manufacturers' specifications, fire prevention codes, and good engineering and maintenance practices for such pollution control technology or combustion control and the Unit.

16. "Date of Entry" means the date this Consent Decree is approved or signed by the United States District Court Judge.

17. "Date of Lodging" means the date that this Consent Decree was filed for lodging with the Clerk of the Court for the United States District Court for the Eastern District of Tennessee, Knoxville Division.

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

19. "Emission Rate" means the number of pounds of pollutant emitted per million British thermal units of heat input ("lb/mmBTU"), measured in accordance with this Consent Decree.

20. "ESP" means electrostatic precipitator, a pollution control device for the reduction of PM.

21. "EPA" means the United States Environmental Protection Agency.

22. "Flue Gas Desulfurization System" or "FGD" means a pollution control device with one or more absorber vessels that employs flue gas desulfurization technology for the control of SO_2 emissions. Unless Paragraph 85 expressly requires the installation and Continuous Operation of a Wet FGD, TVA may install either a Wet FGD or a Dry FGD.

23. "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.

24. "Improved Unit" for NO_x means a TVA System Unit equipped with an SCR or scheduled under this Consent Decree to be equipped with an SCR (or equivalent control

technology approved pursuant to Paragraph 199) or Repowered to Renewable Biomass (as defined herein). A Unit may be an Improved Unit for one pollutant without being an Improved Unit for another. Any Other Unit in the TVA System can become an Improved Unit for NO_x if it is equipped with an SCR (or equivalent control technology approved pursuant to Paragraph 199) and the requirement to Continuously Operate the SCR or equivalent control technology is incorporated into a federally-enforceable non-Title V permit, or if it is Repowered to Renewable Biomass (as defined herein).

25. "Improved Unit" for SO_2 means a TVA System Unit equipped with an FGD or scheduled under this Consent Decree to be equipped with an FGD (or equivalent control technology approved pursuant to Paragraph 199) or Repowered to Renewable Biomass (as defined herein). A Unit may be an Improved Unit for one pollutant without being an Improved Unit for another. Any Other Unit in the TVA System can become an Improved Unit for SO_2 if it is equipped with an FGD (or equivalent control technology approved pursuant to Paragraph 199) and the requirement to Continuously Operate the FGD or equivalent control technology is incorporated into a federally-enforceable non-Title V permit, or it is Repowered to Renewable Biomass (as defined herein).

26. "Kentucky" means the Commonwealth of Kentucky, Energy and Environment Cabinet.

27. "lb/mmBTU" means one pound per million British thermal units.

28. "Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal

or usual manner. Failures that are caused in part by poor maintenance or careless operation are not Malfunctions.

29. "MW" means a megawatt or one million Watts.

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

31. "New CC/CT Unit" shall have the meaning indicated in Paragraph 117, below.

32. "NSPS" means New Source Performance Standards within the meaning of Part A of Subchapter I of the Act, 42 U.S.C. § 7411, and 40 C.F.R. Part 60.

33. "Nonattainment NSR" means the nonattainment area new source review program within the meaning of Part D of Subchapter I of the Act, 42 U.S.C. §§ 7501-7515, 40 C.F.R. Part 51, and the federally-approved Nonattainment NSR provisions of the Alabama, Kentucky, and Tennessee State Implementation Plans ("SIPs"), including Ala. Admin. Code r. 335-3-14-.05, 401 Ky. Admin. Regs. 51:052, Tenn. Comp. R. & Regs.1200-3-9-.01(5), and the Memphis/Shelby County local program.

34. "NO_x" means oxides of nitrogen, measured in accordance with the provisions of this Consent Decree.

35. "NO_x Allowance" means an authorization or credit to emit a specified amount of NO_x that is allocated or issued under an emissions trading or marketable permit program of any kind that has been established under the Act and/or the Alabama, Kentucky, or Tennessee SIPs.

36. "North Carolina" means the State of North Carolina.

37. "Other Unit" means any Unit at the Shawnee Plant that is not an Improved Unit for the pollutant in question.

38. "Operational or Ownership Interest" means part or all of TVA's legal or equitable operational or ownership interest in any Unit in the TVA System or any New CC/CT Unit(s).

39. "Parallel Provision" means a requirement or prohibition of this Consent Decree that is also a requirement or prohibition of the Compliance Agreement.

40. "Parties" means the Plaintiffs and TVA. "Party" means one of the Parties.

41. "PM" means particulate matter, as measured in accordance with the requirements of this Consent Decree.

42. "PM Control Device" means any device, including an ESP or a Baghouse, which reduces emissions of PM. If a Wet FGD is the only device controlling PM on a particular Unit, then the Wet FGD is the PM Control Device.

43. "PM Emission Rate" means the number of pounds of filterable PM emitted per million British thermal units of heat input ("lb/mmBTU"), as measured in accordance with this Consent Decree.

44. "Plaintiffs" means collectively the States and the Citizen Plaintiffs.

45. "PSD" means Prevention of Significant Deterioration within the meaning of Part C of Subchapter I of the Act, 42 U.S.C. §§ 7470 - 7492 and 40 C.F.R. Part 52, and the federally-approved PSD provisions of the Alabama, Kentucky, and Tennessee SIPs, including Ala. Admin. Code r. 335-3-14-.04, 401 Ky. Admin. Reg. 51:017, Tenn. Comp. R. & Regs. 1200-3-9-.01(4), and the Memphis/Shelby County local program.

46. "Region 4 Air Director" means the EPA Region 4 Director of Air, Pesticides and Toxics Management Division.

47. "Remove from Service" means:

a. with regard to the John Sevier plant, that two (2) of the four (4) Units shall cease to operate and emit any pollutants whatsoever by the dates specified in Paragraphs 69 and 85 for the 2 Units to be Removed from Service unless and until an SCR and FGD are installed and commence Continuous Operation for each such Unit, or the Unit(s) is Repowered to Renewable Biomass or Retired, which shall occur by no later than the second date specified in Paragraphs 69 and 85 for the 2 Units that are Removed from Service provided that TVA may select which 2 Units at the John Sevier plant it will Remove from Service and that the remaining 2 Units shall be Retired as set forth in Paragraphs 69 and 85, and

b. with regard to Colbert Units 1-5, that such Units shall cease to operate and emit any pollutants whatsoever by the dates specified in Paragraphs 69 and 85 unless and until, by no later than three (3) years thereafter, an SCR and FGD are installed and commence Continuous Operation for each such Unit(s) or the Unit(s) is Repowered to Renewable Biomass or Retired, as specified therein.

48. "Renewable Biomass" means, solely for purposes of this Consent Decree, any organic matter that is available on a renewable basis from non-Federal land or from federal land that TVA manages, including renewable plant material; waste material, including crop residue; other vegetative waste material, including wood waste and wood residues; animal waste and byproducts; construction, food and yard waste; and residues and byproducts from wood pulp or

paper products facilities. Biomass is renewable if it originates from forests that remain forests, or from croplands and/or grasslands that remain cropland and/or grassland or revert to forest. Biomass residues and byproducts from wood pulp or paper products facilities includes by-products, residues, and waste streams from agriculture, forestry, and related industries, but does not include used oil or expired pesticides. "Renewable Biomass" does not include any treated wood, including but not limited to, railroad ties, painted woods, or wood that has been treated with pentachlorophenol, copper-based and borate-based compounds, or creosote.

49. "Repower" or "Repowered" means Repower to Renewable Biomass or Repowered to Renewable Biomass.

50. "Repower to Renewable Biomass" or "Repowered to Renewable Biomass" for purposes of this Consent Decree means a TVA System Unit that is repowered to combust a fuel other than coal. Such a Repowered Unit shall only combust Renewable Biomass; provided, however, that such Repowered Unit may co-fire a fuel other than Renewable Biomass (but not used oil, expired pesticides, or any treated wood, including but not limited to, railroad ties, painted wood, or wood that has been treated with pentachlorophenol, copper-based and borate-based compounds, or creosote) up to six percent (6%) of heat input each calendar year for the Unit. Notwithstanding Section III.H (Resolution of Claims Against TVA) and Paragraph 116, for Shawnee Unit 10 and any other TVA System Unit that TVA Repowers to Renewable Biomass pursuant to Paragraphs 69 or 85, TVA shall apply for all required permits. A new source review permit under the PSD and/or Nonattainment NSR programs is a required permit within the meaning of this Paragraph; such a Repowered Unit is a "new emissions unit" as that

term is defined in 40 C.F.R. §§ 52.21(b)(7)(i), 51.165(a)(1)(vii)(A), and 51.166(b)(7)(i), and the relevant SIP; and such Unit shall be subject to the test described in 40 C.F.R. §§ 52.21(a)(2)(iv)(d), 51.165(a)(2)(ii)(D), and 51.166(a)(7)(d), and the relevant SIP. In such permitting action, TVA shall apply to include the limitation on co-firing a fuel other than Renewable Biomass as specified above. Any TVA System Unit that has the option to Repower to Renewable Biomass in Paragraphs 69 and 85 that TVA elects to Repower to Renewable Biomass as the Control Requirement under this Consent Decree, shall be subject to the prohibitions in Section III.E (Prohibition on Netting or Offsets From Required Controls). If Shawnee Unit 10 is Repowered to Renewable Biomass, it shall be subject to the prohibitions in Section III.E (Prohibition on Netting or Offsets From Required Controls) regarding netting credits.

51. "Retire" means that TVA shall permanently cease to operate the Unit such that the Unit cannot legally burn any fuel nor produce any steam for electricity production and TVA shall comply with applicable state and/or federal requirements for permanently retiring a coal-fired electric generating unit, including removing the Unit from the relevant state's air emissions inventory, and amending all applicable permits so as to reflect the permanent shutdown status of such Unit. Nothing herein shall prevent TVA from seeking to re-start the Retired Unit provided that TVA applies for, and obtains, all required permits. A new source review permit under the PSD and/or Nonattainment NSR programs is a required permit within the meaning of this Paragraph; such Retired Unit shall be a "new emissions unit" as that term is defined in 40 C.F.R. §§ 52.21(b)(7)(i), 51.165(a)(1)(vii)(A), and 51.166(b)(7)(i), and the relevant SIP; and such

Retired Unit shall be subject to the test described in 40 C.F.R. §§ 52.21(a)(2)(iv)(d), 51.165(a)(2)(ii)(D), and 51.166(a)(7)(d), and the relevant SIP.

52. "Selective Catalytic Reduction" or "SCR" means a pollution control device that employs selective catalytic reduction technology for the reduction of NO_x emissions.

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

54. "Startup" and "Shutdown" mean, as to each of those terms, the definition of those respective terms in 40 C.F.R. § 60.2.

55. "States" or "the States" refers collectively to Alabama, Kentucky, North Carolina, and Tennessee.

56. "SO_2" means sulfur dioxide, as measured in accordance with the provisions of this Consent Decree.

57. "SO_2 Allowance" means an authorization or credit to emit a specified amount of SO_2 that is allocated or issued under an emissions trading or marketable permit program of any kind that has been established under the Act or the Alabama, Kentucky, or Tennessee SIPs.

58. "Surrender" or "surrender of allowances" means, for purposes of SO_2 or NO_x allowances, permanently surrendering allowances as required by this Consent Decree from the accounts administered by EPA and Alabama, Kentucky, and Tennessee for all Units in the TVA System, so that such allowances can never be used thereafter by any entity to meet any compliance requirement under the Act, a SIP, or this Consent Decree.

59. "System-Wide Annual Tonnage Limitation" means the number of tons of the pollutant in question that may be emitted collectively from the TVA System and any New CC/CT Units during the relevant calendar year (i.e., January 1 through December 31), and shall include all emissions of the pollutant emitted during all periods of operation, including Startup, Shutdown, and Malfunction.

60. "Tennessee" means the State of Tennessee, Tennessee Department of Environment and Conservation ("TDEC").

61. "Tennessee State Implementation Plan" and "Tennessee Title V program" shall include, when applicable, the new source review provisions of the Memphis/Shelby County local program, and its implementing regulations, and its Title V permit program.

62. "TVA" means Tennessee Valley Authority, a federal agency and instrumentality of the United States.

63. "TVA System" means solely for purposes of this Consent Decree, the following coal-fired, electric steam generating Units (with nameplate MW capacity of each Unit, for identification purposes only) or such coal-fired Unit that is Repowered to Renewable Biomass, located at the following plants:

a Allen Unit 1 (330 MW), Allen Unit 2 (330 MW), and Allen Unit 3 (330 MW) located at the Allen Fossil Plant near Memphis, Tennessee;

b. Bull Run Unit 1 (950 MW) located at the Bull Run Fossil Plant near Oak Ridge, Tennessee;

c. Colbert Unit 1 (200 MW), Colbert Unit 2 (200 MW), Colbert Unit 3 (200 MW), Colbert Unit 4 (200 MW), and Colbert Unit 5 (550 MW) located at the Colbert Fossil Plant in Tuscumbia, Alabama;

d. Cumberland Unit 1 (1300 MW) and Cumberland Unit 2 (1300 MW) located at the Cumberland Fossil Plant in Cumberland City, Tennessee;

e. Gallatin Unit 1 (300 MW), Gallatin Unit 2 (300 MW), Gallatin Unit 3 (327.6 MW), and Gallatin Unit 4 (327.6 MW) located at the Gallatin Fossil Plant in Gallatin, Tennessee;

f. John Sevier Unit 1 (200 MW), John Sevier Unit 2 (200 MW), John Sevier Unit 3 (200 MW), and John Sevier Unit 4 (200 MW) located at the John Sevier Fossil Plant near Rogersville, Tennessee;

g. Johnsonville Unit 1 (125 MW), Johnsonville Unit 2 (125 MW), Johnsonville Unit 3 (125 MW), Johnsonville Unit 4 (125 MW), Johnsonville Unit 5 (147 MW), Johnsonville Unit 6 (147 MW), Johnsonville Unit 7 (172.8 MW), Johnsonville Unit 8 (172.8 MW), Johnsonville Unit 9 (172.8 MW), and Johnsonville Unit 10 (172.8 MW) located at the Johnsonville Fossil Plant near Waverly, Tennessee;

h. Kingston Unit 1 (175 MW), Kingston Unit 2 (175 MW), Kingston Unit 3 (175 MW), Kingston Unit 4 (175 MW), Kingston Unit 5 (200 MW), Kingston Unit 6 (200 MW), Kingston Unit 7 (200 MW), Kingston Unit 8

(200 MW), and Kingston Unit 9 (200 MW) located at the Kingston Fossil Plant near Kingston, Tennessee;

i. Paradise Unit 1 (704 MW), Paradise Unit 2 (704 MW), and Paradise Unit 3 (1150.2 MW) located at the Paradise Fossil Plant in Drakesboro, Kentucky;

j. Shawnee Unit 1 (175 MW), Shawnee Unit 2 (175 MW), Shawnee Unit 3 (175 MW), Shawnee Unit 4 (175 MW), Shawnee Unit 5 (175 MW), Shawnee Unit 6 (175 MW), Shawnee Unit 7 (175 MW), Shawnee Unit 8 (175 MW), Shawnee Unit 9 (175 MW), and Shawnee Unit 10 (175 MW) located at the Shawnee Fossil Plant near Paducah, Kentucky; and

k. Widows Creek Unit 1 (140.6 MW), Widows Creek Unit 2 (140.6 MW), Widows Creek Unit 3 (140.6 MW), Widows Creek Unit 4 (140.6 MW), Widows Creek Unit 5 (140.6 MW), Widows Creek Unit 6 (140.6 MW), Widows Creek Unit 7 (575 MW), and Widows Creek Unit 8 (550 MW) located at the Widows Creek Fossil Plant near Stevenson, Alabama.

64. "Title V Permit" means the permit required of TVA's major sources under Subchapter V of the Act, 42 U.S.C. §§ 7661-7661e; Ala. Code §§ 22-22A-1 to -16, §§ 22-28-1 to -23 (2006 Rplc. Vol.), and Ala. Admin. Code r. 335-3-16; Ky. Rev. Stat. Ann. §§ 224.20-100 to -120, and 401 Ky. Admin. Reg. 52:020; and Tenn. Comp. R. & Regs. R. 1200-3-9-.02.

65. "Unit" means collectively, the coal pulverizer, stationary equipment that feeds coal to the boiler, the boiler that produces steam for the steam turbine, the steam turbine, the

generator, the equipment necessary to operate the generator, steam turbine and boiler, and all ancillary equipment, including pollution control equipment. An electric steam generating station may comprise one or more Units. "Unit" shall also include any coal-fired TVA System Unit identified in Paragraph 63 that is Repowered to Renewable Biomass pursuant to this Consent Decree.

66. "VOC" means volatile organic compounds as defined in 40 C.F.R. § 51.100.

B. NO_x EMISSION REDUCTIONS AND CONTROLS

1. NO_x Emission Limitations.

67. System-Wide Annual Tonnage Limitations for NO_x. During each calendar year specified in the table below, all Units in the TVA System and any New CC/CT Units constructed pursuant to Paragraph 117, collectively, shall not emit NO_x in excess of the following System-Wide Annual Tonnage Limitations:

Calendar Year	**System-Wide Tonnage Limitation for NO_x**
2011	100,600
2012	100,600
2013	90,791
2014	86,842
2015	83,042
2016	70,667
2017	64,951
2018, and each year thereafter	52,000

68. If TVA elects to Remove from Service any or all of Colbert Units 1-5 either pursuant to Paragraph 69 or Paragraph 85, then the System-Wide Annual Tonnage Limitations

for NO_x in each calendar year for which such Unit(s) is Removed from Service shall be adjusted as follows:

Unit	**Tons by Which System-Wide Annual Tonnage Limitation for NO_x Shall be Reduced If Unit is Removed From Service in a Calendar Year**
Colbert Unit 1	700 tons
Colbert Unit 2	500 tons
Colbert Unit 3	500 tons
Colbert Unit 4	500 tons
Colbert Unit 5	1,200 tons

2. NO_x Control Requirements.

69. No later than the dates set forth in the table below, and continuing thereafter, TVA shall install and commence Continuous Operation of the pollution control technology identified therein or, if indicated in the table, Retire or Repower each Unit identified therein, or, solely for Colbert Units 1-4 and two (2) Units at the John Sevier plant, Remove from Service as defined herein:

Plant	**Unit**	**Control Requirement**	**Date**
Allen	Unit 1	SCR	Consent Decree Obligation Date
Allen	Unit 2	SCR	Consent Decree Obligation Date
Allen	Unit 3	SCR	Consent Decree Obligation Date
Bull Run	Unit 1	SCR	Consent Decree Obligation Date
Colbert	Unit 1	Remove from Service, SCR, Repower to Renewable Biomass, or Retire	June 30, 2016

Plant	Unit	Control Requirement	Date
Colbert	Unit 2	Remove from Service, SCR, Repower to Renewable Biomass, or Retire	June 30, 2016
Colbert	Unit 3	Remove from Service, SCR, Repower to Renewable Biomass, or Retire	June 30, 2016
Colbert	Unit 4	Remove from Service, SCR, Repower to Renewable Biomass, or Retire	June 30, 2016
Colbert	Unit 5	SCR	Consent Decree Obligation Date
Cumberland	Unit 1	SCR	Consent Decree Obligation Date
Cumberland	Unit 2	SCR	Consent Decree Obligation Date
Gallatin	Unit 1	SCR, Repower to Renewable Biomass, or Retire	December 31, 2017
Gallatin	Unit 2	SCR, Repower to Renewable Biomass, or Retire	December 31, 2017
Gallatin	Unit 3	SCR, Repower to Renewable Biomass, or Retire	December 31, 2017
Gallatin	Unit 4	SCR, Repower to Renewable Biomass, or Retire	December 31, 2017
John Sevier	2 Units	Retire	December 31, 2012
John Sevier	2 other Units	Remove from Service	December 31, 2012
		SCR, Repower to Renewable Biomass, or Retire	December 31, 2015
Johnsonville	Units 1 - 10	Retire	6 Units by December 31, 2015
			4 additional Units by December 31, 2017
Kingston	Unit 1	SCR	Consent Decree Obligation Date

Plant	Unit	Control Requirement	Date
Kingston	Unit 2	SCR	Consent Decree Obligation Date
Kingston	Unit 3	SCR	Consent Decree Obligation Date
Kingston	Unit 4	SCR	Consent Decree Obligation Date
Kingston	Unit 5	SCR	Consent Decree Obligation Date
Kingston	Unit 6	SCR	Consent Decree Obligation Date
Kingston	Unit 7	SCR	Consent Decree Obligation Date
Kingston	Unit 8	SCR	Consent Decree Obligation Date
Kingston	Unit 9	SCR	Consent Decree Obligation Date
Paradise	Unit 1	SCR	Consent Decree Obligation Date
Paradise	Unit 2	SCR	Consent Decree Obligation Date
Paradise	Unit 3	SCR	Consent Decree Obligation Date
Shawnee	Unit 1	SCR, Repower to Renewable Biomass, or Retire	December 31, 2017
Shawnee	Unit 4	SCR, Repower to Renewable Biomass, or Retire	December 31, 2017
Widows Creek	Units 1-6	Retire	2 Units by July 31, 2013
			2 additional Units by July 31, 2014
			2 additional Units by July 31, 2015
Widows Creek	Unit 7	SCR	Consent Decree Obligation Date
Widows Creek	Unit 8	SCR	Consent Decree Obligation Date

70. Notwithstanding Paragraph 69, TVA's failure to (a) complete installation and commence Continuous Operation of a pollution control technology by the date specified in the table in Paragraph 69 or (b) Repower to Renewable Biomass by the date specified in the table in Paragraph 69, shall not be a violation of this Consent Decree if such Unit:

(i) ceases to operate and emit any pollutants whatsoever at least sixty (60) days before the date specified in the table in Paragraph 69, and

(ii) the installation is completed and the Unit commences Continuous Operation of the pollution control technology specified in the table in Paragraph 69 or as a Repowered Unit no later than ninety (90) days after the date specified in the table in Paragraph 69. If TVA fails to commence Continuous Operation of the pollution control technology or the Repowered Unit ninety (90) days after such date, then TVA shall be subject to stipulated penalties for the entire period commencing on the date specified in the Table in Paragraph 69.

71. Beginning upon the Consent Decree Obligation Date and continuing thereafter, TVA shall (a) Continuously Operate existing LNB, OFA, and SOFA combustion controls at all Units in the TVA System and (b) Continuously Operate existing SNCR technology at all Units in the TVA System equipped with such technology as of the Date of Lodging of this Consent Decree (i.e., John Sevier Units 1-4 and Johnsonville Units 1-4) unless and until such Unit is equipped with an SCR and TVA Continuously Operates such SCR pursuant to this Consent Decree, or such Unit is Retired or Repowered pursuant to this Consent Decree.

72. For TVA System Units with two or more methods specified in the Control Requirement column in the table in Paragraph 69, above, TVA shall provide notice to EPA, the

States, and the Citizen Plaintiffs pursuant to Section VIII (Notices) of this Consent Decree of its election as to which of the Control Requirement methods it will employ at such Unit by no later than three (3) years prior to the date specified in the table for that Unit. For the Units at the John Sevier plant, TVA shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section VIII (Notices) of this Consent Decree of its election as to which two (2) Units it will Retire and which two (2) Units it will at least initially Remove from Service, by no later than June 30, 2012. For any TVA System Unit that TVA timely elects to control with SCR or Repower to Renewable Biomass, TVA may change its election to Retire at any time prior to the date specified in the table in Paragraph 69. TVA shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section VIII (Notices) of its decision to Retire the Unit, with an explanation for its decision to change the election, by no later than ten (10) business days following its decision to change its election from SCR or Repower to Renewable Biomass to Retire.

73. Solely for the Units at the Colbert plant, if TVA elects the Remove from Service option, it shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section VIII (Notices) at the time such Units are required to be Removed from Service as to which method specified in the Control Requirement column in the table in Paragraph 69 it will employ at such Unit.

3. Use and Surrender of NO_x Allowances.

74. TVA 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.

75. Beginning with calendar year 2011, and continuing each calendar year thereafter, TVA shall surrender all NO_x Allowances allocated to the TVA System for that calendar year that TVA does not need in order to meet its own federal and/or state Clean Air Act regulatory requirements for the TVA System for that calendar year. However, NO_x Allowances allocated to the TVA System may be used by TVA to meet its own federal and/or state Clean Air Act regulatory requirements for the Units included in the TVA System.

76. Nothing in this Consent Decree shall prevent TVA from purchasing or otherwise obtaining NO_x Allowances from another source for purposes of complying with federal and/or state Clean Air Act regulatory requirements (i.e., emissions trading or marketable permit programs) to the extent otherwise allowed by law.

77. The requirements of this Consent Decree pertaining to TVA's use and surrender of NO_x Allowances are permanent injunctions not subject to any termination provision of this Consent Decree.

4. Super-Compliance Allowances.

78. Notwithstanding Paragraph 75, in each calendar year beginning in 2011, and continuing thereafter, TVA may sell, bank, use, trade, or transfer any NO_x Allowances made available in that calendar year as a result of maintaining actual NO_x emissions from the combined total of (a) the TVA System and (b) any New CC/CT Unit(s) constructed pursuant to Paragraph 117 below the System-Wide Annual Tonnage Limitations for NO_x for such calendar year ("Super-Compliance Allowances"); provided, however, that reductions in NO_x emissions that

TVA utilizes as provided in Paragraph 117 to support the permitting of a New CC/CT Unit(s) shall not be available to generate Super-Compliance Allowances within the meaning of this Paragraph in the calendar year in which TVA utilizes such emission reductions and all calendar years thereafter. TVA shall timely report the generation of all Super-Compliance NO_x Allowances in accordance with Section III.I (Periodic Reporting) of this Consent Decree, and shall specifically identify any Super-Compliance NO_x Allowances that TVA generates from Retiring a TVA System Unit and that TVA did not utilize for purposes of Paragraph 117.

5. Method for Surrender of NO_x Allowances.

79. TVA shall surrender all NO_x Allowances required to be surrendered pursuant to Paragraph 75 by April 30 of the immediately following calendar year.

80. For all NO_x Allowances required to be surrendered, TVA shall first submit a NO_x Allowance transfer request form to EPA's Office of Air and Radiation's Clean Air Markets Division directing the transfer of such NO_x Allowances to the EPA Enforcement Surrender Account or to any other EPA account that EPA may direct in writing. As part of submitting these transfer requests, TVA shall irrevocably authorize the transfer of these NO_x Allowances and identify -- by name of account and any applicable serial or other identification numbers or station names -- the source and location of the NO_x Allowances being surrendered.

6. NO_x Monitoring Provisions.

81. TVA shall use CEMS in accordance with 40 C.F.R. Part 75 to monitor its emissions of NO_x from the TVA System Units and any New CC/CT Unit(s) for purposes of demonstrating compliance with the applicable System-Wide Annual Tonnage Limitations specified in Paragraph 67 of this Consent Decree.

C. SO_2 EMISSION REDUCTIONS AND CONTROLS

1. SO_2 Emission Limitations.

82. System-Wide Annual Tonnage Limitations for SO_2. During each calendar year specified in the table below, all Units in the TVA System and any New CC/CT Unit(s) constructed pursuant to Paragraph 117, collectively, shall not emit SO_2 in excess of the following System-Wide Annual Tonnage Limitations:

Calendar Year	**System-Wide Tonnage Limitation for SO_2**
2011	285,000
2012	285,000
2013	235,518
2014	228,107
2015	220,631
2016	175,626
2017	164,257
2018	121,699
2019, and each year thereafter	110,000

83. If TVA elects to Remove from Service any or all of Colbert Units 1-5 either pursuant to Paragraph 69 or Paragraph 85, then the System-Wide Annual Tonnage Limitations for SO_2 in each calendar year for which such Unit(s) is Removed from Service shall be adjusted as follows:

Calendar Year	**Tons by Which System-Wide Annual Tonnage Limitation for SO_2 Shall be Reduced If Unit is Removed From Service in a Calendar Year**
Colbert Unit 1	700 tons
Colbert Unit 2	1,100 tons
Colbert Unit 3	1,000 tons
Colbert Unit 4	1,100 tons
Colbert Unit 5	2,600 tons

84. If TVA must shut down one or more of its nuclear units for more than one hundred and twenty (120) consecutive days within calendar year 2011 or within calendar year 2012 because of a forced outage or in response to a safety concern as required by the Nuclear Regulatory Commission, then the System-Wide Annual Tonnage Limitation for SO_2 for that calendar year shall be 295,000 tons rather than 285,000 tons as specified in the table in Paragraph 82. If TVA must shut down one or more of its nuclear units for more than one hundred and twenty (120) consecutive days within calendar year 2013 or within calendar year 2014 because of a forced outage or in response to a safety concern as required by the Nuclear Regulatory Commission, then the System-Wide Annual Tonnage Limitation for SO_2 for calendar year 2013 shall be 241,700 tons rather than 235,518 tons as specified in the table in Paragraph 82 and the System-Wide Annual Tonnage Limitation for SO_2 for calendar year 2014 shall be 234,000 tons rather than 228,107 tons as specified in the table in Paragraph 82. In order to put EPA, the States, and the Citizen Plaintiffs on notice of this potential event, TVA shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section VIII (Notices), and include a summary of the circumstances causing the shut down and TVA's efforts to bring the unit back on line, commencing no later than thirty (30) days following the shutdown of a nuclear unit, and continuing every thirty (30) days thereafter until either (a) the unit comes back online or (b) the unit remains shut down for one hundred twenty (120) consecutive days, whichever is earlier. In this circumstance, TVA shall, to the extent practicable, increase utilization of any Units in the TVA System that are controlled with FGDs and/or SCRs and/or any New CC/CT Unit(s)

constructed pursuant to Paragraph 117 to replace the lost power generation from the nuclear unit before increasing utilization of uncontrolled TVA System Units.

2. SO_2 Control Requirements.

85. No later than the dates set forth in the table below, and continuing thereafter, TVA shall install and commence Continuous Operation of the pollution control technology at each Unit identified therein or, if indicated in the table, Retire or Repower each Unit identified therein, or, solely for Colbert Units 1-5 and two (2) Units at the John Sevier plant, Remove from Service as defined herein:

Plant	**Unit**	**Control Requirement**	**Date**
Allen	Unit 1	FGD or Retire	December 31, 2018
Allen	Unit 2	FGD or Retire	December 31, 2018
Allen	Unit 3	FGD or Retire	December 31, 2018
Bull Run	Unit 1	Wet FGD	Consent Decree Obligation Date
Colbert	Unit 1	Remove from Service, FGD, Repower to Renewable Biomass, or Retire	June 30, 2016
Colbert	Unit 2	Remove from Service, FGD, Repower to Renewable Biomass, or Retire	June 30, 2016
Colbert	Unit 3	Remove from Service, FGD, Repower to Renewable Biomass, or Retire	June 30, 2016
Colbert	Unit 4	Remove from Service, FGD, Repower to Renewable Biomass, or Retire	June 30, 2016
Colbert	Unit 5	Remove from Service, FGD or Retire	December 31, 2015
Cumberland	Unit 1	Wet FGD	Consent Decree Obligation Date

Plant	Unit	Control Requirement	Date
Cumberland	Unit 2	Wet FGD	Consent Decree Obligation Date
Gallatin	Unit 1	FGD, Repower to Renewable Biomass, or Retire	December 31, 2017
Gallatin	Unit 2	FGD, Repower to Renewable Biomass, or Retire	December 31, 2017
Gallatin	Unit 3	FGD, Repower to Renewable Biomass, or Retire	December 31, 2017
Gallatin	Unit 4	FGD, Repower to Renewable Biomass, or Retire	December 31, 2017
John Sevier	2 Units	Retire	December 31, 2012
John Sevier	2 other Units	Remove from Service	December 31, 2012
		FGD, Repower to Renewable Biomass, or Retire	December 31, 2015
Johnsonville	Units 1 - 10	Retire	6 Units by December 31, 2015
			4 additional Units by December 31, 2017
Kingston	Unit 1	Wet FGD	Consent Decree Obligation Date
Kingston	Unit 2	Wet FGD	Consent Decree Obligation Date
Kingston	Unit 3	Wet FGD	Consent Decree Obligation Date
Kingston	Unit 4	Wet FGD	Consent Decree Obligation Date
Kingston	Unit 5	Wet FGD	Consent Decree Obligation Date
Kingston	Unit 6	Wet FGD	Consent Decree Obligation Date
Kingston	Unit 7	Wet FGD	Consent Decree Obligation Date
Kingston	Unit 8	Wet FGD	Consent Decree Obligation Date
Kingston	Unit 9	Wet FGD	Consent Decree Obligation Date
Paradise	Unit 1	FGD Upgrade to 93% Removal Efficiency	December 31, 2012

Plant	Unit	Control Requirement	Date
Paradise	Unit 2	FGD Upgrade to 93% Removal Efficiency	December 31, 2012
Paradise	Unit 3	Wet FGD	Consent Decree Obligation Date
Shawnee	Unit 1	FGD, Repower to Renewable Biomass, or Retire	December 31, 2017
Shawnee	Unit 4	FGD, Repower to Renewable Biomass, or Retire	December 31, 2017
Widows Creek	Units 1-6	Retire	2 Units by July 31, 2013
			2 additional Units by July 31, 2014
			2 additional Units by July 31, 2015
Widows Creek	Unit 7	Wet FGD	Consent Decree Obligation Date
Widows Creek	Unit 8	Wet FGD	Consent Decree Obligation Date

Notwithstanding any requirement specified in the preceding table to Continuously Operate a Wet FGD at Kingston Units 1-9, TVA shall not be required to Continuously Operate such Wet FGD(s) until either: (a) TDEC authorizes disposal of gypsum in the Class II landfill (IDL 73-0211) which, as of the Date of Lodging of this Consent Decree, is prohibited pursuant to TDEC's Order dated December 17, 2010 in Case No. SWM10-0010 or (b) September 20, 2011, whichever occurs sooner. During the period when this exemption is in effect, TVA shall (a) burn coal at Kingston that achieves a 30-day rolling average emission rate for SO_2 of no greater than 1.1 lb/mmBTU and (b) operate Kingston only after Bull Run is dispatched first. This exemption shall not relieve TVA of its obligation to comply with the 2011 SO_2 System-Wide Annual Tonnage Limitation and shall not relieve TVA of any other control requirements relating to Kingston, except as provided in Paragraph 100.

86. Notwithstanding Paragraph 85, TVA's failure to (a) complete installation and commence Continuous Operation of a pollution control technology by the date specified in the table in Paragraph 85 or (b) Repower to Renewable Biomass by the date specified in the table in Paragraph 85, shall not be a violation of this Consent Decree if such Unit:

(i) ceases to operate and emit any pollutants whatsoever at least sixty (60) days before the date specified in the table in Paragraph 85, and

(ii) the installation is completed and the Unit commences Continuous Operation of the pollution control technology specified in the table in Paragraph 85 or as a Repowered Unit no later than ninety (90) days after the date specified in the table in Paragraph 85. If TVA fails to commence Continuous Operation of the pollution control technology or the Repowered Unit ninety (90) days after such date, then TVA shall be subject to stipulated penalties for the entire period commencing on the date specified in the Table in Paragraph 85.

87. Upon the Consent Decree Obligation Date, and continuing thereafter, emissions of SO_2 from Shawnee Units 1-10 shall not exceed 1.2 lb/mmBTU. Compliance with this limitation shall be demonstrated using the procedures specified in the Clean Air Act operating permit for the Shawnee facility.

88. For TVA System Units with two or more methods specified in the Control Requirement column in the table in Paragraph 85, above, TVA shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section VIII (Notices) of its election as to which of the Control Requirement methods it will employ at such Unit by no later than three (3) years prior to the date specified in the Table for that Unit. For the Units at the John Sevier plant, TVA shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section VIII

(Notices) of this Consent Decree of its election as to which two (2) Units it will Retire and which two (2) Units it will at least initially Remove from Service, by no later than June 30, 2012. For any TVA System Unit that TVA timely elects to control with FGD or Repower to Renewable Biomass, TVA may change its election to Retire at any time prior to the date specified in the table in Paragraph 85. TVA shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section VIII (Notices) of its decision to Retire the Unit, with an explanation for its decision to change the election, by no later than ten (10) business days following its decision to change its election from FGD or Repower to Renewable Biomass to Retire.

89. Solely for the Units at the Colbert plant, if TVA elects the Remove from Service option, it shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section VIII (Notices) at the time such Units are required to be Removed from Service as to which method specified in the Control Requirement column in the table in Paragraph 85 it will employ at such Unit.

3. Use and Surrender of SO_2 Allowances.

90. TVA shall not use SO_2 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 SO_2 Allowances to offset any excess emissions.

91. Beginning with calendar year 2011, and continuing each calendar year thereafter, TVA shall surrender all SO_2 Allowances allocated to the TVA System for that calendar year that TVA does not need in order to meet its own federal and/or state Clean Air Act regulatory requirements for the TVA System Units for that calendar year. However, SO_2 Allowances

allocated to the TVA System may be used by TVA to meet its own federal and/or state Clean Air Act regulatory requirements for the TVA System Units.

92. Nothing in this Consent Decree shall prevent TVA from purchasing or otherwise obtaining SO_2 Allowances from another source for purposes of complying with federal and/or state Clean Air Act regulatory requirements (i.e., emissions trading or marketable permit programs) to the extent otherwise allowed by law.

93. The requirements in this Consent Decree pertaining to TVA's use and surrender of SO_2 Allowances are permanent injunctions not subject to any termination provision of this Consent Decree.

4. Super-Compliance Allowances.

94. Notwithstanding Paragraph 91, in each calendar year beginning in 2011, and continuing thereafter, TVA may sell, bank, use, trade, or transfer any SO_2 Allowances made available in that calendar year as a result of maintaining actual SO_2 emissions from the combined total of (a) the TVA System and (b) any New CC/CT Unit(s) constructed pursuant to Paragraph 117 below the System-Wide Annual Tonnage Limitations for SO_2 for such calendar year ("Super-Compliance Allowances"); provided, however, that reductions in SO_2 emissions that TVA utilizes as provided in Paragraph 117 to support the permitting of a New CC/CT Unit(s) shall not be available to generate Super-Compliance Allowances within the meaning of this Paragraph in the calendar year in which TVA utilizes such emission reductions and all calendar years thereafter. TVA shall timely report the generation of all Super-Compliance SO_2 Allowances in accordance with Section III.I (Periodic Reporting) of this Consent Decree, and

shall specifically identify any Super-Compliance SO_2 Allowances that TVA generates from Retiring a TVA System Unit and that TVA did not utilize for purposes of Paragraph 117.

5. Method for Surrender of SO_2 Allowances.

95. TVA shall surrender all SO_2 Allowances required to be surrendered pursuant to Paragraph 91 by April 30 of the immediately following year.

96. For all SO_2 Allowances required to be surrendered, TVA shall first submit an SO_2 Allowance transfer request form to EPA's Office of Air and Radiation's Clean Air Markets Division directing the transfer of such SO_2 Allowances to the EPA Enforcement Surrender Account or to any other EPA account that EPA may direct in writing. As part of submitting these transfer requests, TVA shall irrevocably authorize the transfer of these SO_2 Allowances and identify -- by name of account and any applicable serial or other identification numbers or station names -- the source and location of the SO_2 Allowances being surrendered.

6. SO_2 Monitoring Provisions.

97. TVA shall use CEMS in accordance with 40 C.F.R. Part 75 to monitor its emissions of SO_2 from the TVA System Units and any New CC/CT Unit(s) for purposes of demonstrating compliance with the applicable System-Wide Annual Tonnage Limitations specified in Paragraph 82 of this Consent Decree.

D. PM EMISSION REDUCTIONS AND CONTROLS

1. Optimization of Existing PM Control Devices.

98. Beginning sixty (60) days after the Consent Decree Obligation Date, and continuing thereafter, TVA shall Continuously Operate each PM Control Device on each Unit in the TVA System. TVA shall, at a minimum, to the extent reasonably practicable and consistent

with manufacturers' specifications, the operational design of the Unit, and good engineering practices (a) fully energize each section of the ESP for each Unit, and where applicable, operate each compartment of the Baghouse (except for a Baghouse compartment that, as part of the original design of the Baghouse when it was first constructed, is a spare compartment); (b) operate automatic control systems on each ESP to maximize PM collection efficiency; and (c) maintain power levels delivered to the ESPs, and where applicable, replace bags as needed on each Baghouse as needed to maximize collection efficiency.

99. TVA shall complete and submit to EPA for review and approval in accordance with Section III.J (Review and Approval of Submittals) of the Compliance Agreement, with copies of such submittal to the States and the Citizen Plaintiffs pursuant to Section VIII (Notices) of this Consent Decree, a PM emission control optimization study for each TVA System Unit except for (a) Colbert Unit 5, Paradise Units 1 and 2, and Widows Creek Unit 8, (b) those Units that TVA is required to Retire pursuant to Paragraphs 69 and 85, (c) those Units that TVA elects to Retire pursuant to Paragraphs 69 and 85, and (d) those Units at which TVA has installed and commenced Continuous Operation of a new PM Control Device. The PM emission control optimization study shall, for the range of fuels used by the Unit, recommend the best available maintenance, repair, and operating practices to optimize the PM Control Device availability and performance in accordance with manufacturers' specifications, the operational design of the Unit, and good engineering practices. TVA shall retain a qualified contractor to assist in the performance and completion of each study. TVA shall perform each study and implement the EPA-approved recommendations in accordance with the following schedule:

Date	Studies Completed, New PM Control Devices Identified To Be Installed, Or Units Elected To Be Retired Pursuant To Paragraphs 69 And 85		Recommendations Implemented, New PM Control Devices Installed, Or Units Retired Pursuant To Election As Required By Paragraphs 69 And 85	
	Individual Year	Cumulative	Individual Year	Cumulative
12/31/2011	6	6	0	0
12/31/2012	8	14	1	1
12/31/2013	6	20	4	5
12/31/2014	6	26	10	15
12/31/2015	3	29	10	25
12/31/2016	4	33	8	33
12/31/2017	4	37	4	37
12/31/2018	0	37	0	37
12/31/2019	0	37	0	37

TVA shall submit each such PM emission control optimization study to EPA for review and approval (in consultation with the States and Citizen Plaintiffs) pursuant to Section III.J (Review and Approval of Submittals) at least nine (9) months before the date specified in the table in this Paragraph for TVA to implement the recommendations. TVA shall maintain each PM Control Device in accordance with the approved PM emission control optimization study or other alternative actions as approved by EPA (in consultation with the States and the Citizen Plaintiffs).

2. PM Emission Rates.

100. No later than the dates set forth in the table below, and continuing thereafter, TVA shall Continuously Operate the PM Control Devices at each Unit identified therein so that each Unit or Units served by a common stack achieve and maintain a PM Emission Rate of no greater than 0.030 lb/mmBTU as determined by stack testing:

Plant	Unit	Date
Allen	Units 1-3	December 31, 2018
Bull Run	Unit 1	Consent Decree Obligation Date
Colbert	Unit 5	December 31, 2015
Gallatin	Units 1-4	December 31, 2017
Kingston	Units 1-9	Consent Decree Obligation Date, subject to the exemption provided in Paragraph 85 for the Continuous Operation of the Wet FGDs

3. PM Emissions Monitoring.

a. PM Stack Tests.

101. Beginning in calendar year 2011, and continuing in each calendar year thereafter, TVA shall conduct a PM stack test for filterable PM at each TVA System Unit or Units served by a common stack that combust fossil fuels at any time in that calendar year.

102. Beginning in calendar year 2011, and continuing for three (3) consecutive calendar years thereafter, TVA shall conduct a PM stack test for condensable PM at each TVA System Unit or Units served by a common stack that combust fossil fuels at any time in that calendar year.

103. The annual stack test requirement imposed on each TVA System Unit by this Section may be satisfied by stack tests conducted by TVA as required by its permits from Alabama, Kentucky, and Tennessee for any year that such stack tests are required under the permits, provided that reference methods and procedures for performing such stack tests are consistent with the requirements specified in this Consent Decree.

104. Filterable PM. The reference methods and procedures for performing PM stack tests for filterable PM and for determining compliance with the PM Emission Rate shall be the applicable reference methods and procedures specified in the relevant Clean Air Act permit for the plant. TVA shall calculate the PM Emission Rate from the stack test results in accordance with 40 C.F.R. § 60.8(f). The results of each PM stack test shall be submitted to EPA, the States, and the Citizen Plaintiffs pursuant to Section VIII (Notices) of this Consent Decree within forty-five (45) days of completion of each test.

105. Condensable PM. The reference methods and procedures for performing PM stack tests to monitor condensable PM shall be those specified in 40 C.F.R. Part 51, Appendix M, Method 202. TVA shall calculate the Emission Rate for condensable PM from the stack test results in accordance with 40 C.F.R. § 60.8(f). The results of each PM stack test shall be submitted to EPA, the States, and the Citizen Plaintiffs pursuant to Section VIII (Notices) of this Consent Decree within forty-five (45) days of completion of each test.

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

b. PM CEMS.

107. TVA shall install, correlate, maintain, and operate PM CEMS as specified below. Each PM CEMS shall comprise a continuous particle mass monitor measuring PM concentration, directly or indirectly, on an hourly average basis and a diluent monitor used to convert the concentration to units of lb/mmBTU. The PM CEMS installed at each stack, or, at Kingston, installed at each flue within the stack, must be appropriate for the anticipated stack

conditions. TVA shall maintain, in an electronic database, the hourly average emission values produced by each PM CEMS in lb/mmBTU. Except for periods of monitor malfunction, maintenance, or repair, TVA shall continuously operate the PM CEMS at all times when at least one Unit it serves is operating.

108. No later than twelve (12) months after the Consent Decree Obligation Date, TVA shall submit to EPA for review and approval pursuant to Section III.J (Review and Approval of Submittals) of the Compliance Agreement, with copies of such submittal to the States and the Citizen Plaintiffs pursuant to Section VIII (Notices) of this Consent Decree, a plan for the installation and correlation of each PM CEMS and a proposed Quality Assurance/Quality Control ("QA/QC") protocol that shall be followed in correlating such PM CEMS. At TVA's option, and to the extent practicable, TVA may submit one plan and one QA/QC protocol that shall take into account Unit-specific measures, as needed, for the PM CEMS required by Paragraphs 107 and 109. In developing both the plan for installation and correlation of the PM CEMS and the QA/QC protocol, TVA shall use the criteria set forth in 40 C.F.R. Part 60, Appendix B, Performance Specification 11, and Appendix F, Procedure 2. Following approval by EPA (in consultation with the States and the Citizen Plaintiffs) of the plan(s) and protocol(s), TVA shall thereafter operate each PM CEMS in accordance with the approved plan(s) and QA/QC protocol(s).

109. No later than twelve (12) months after the date that EPA approves the plan for installation and correlation of the PM CEMS and the QA/QC protocol, TVA shall install, correlate, maintain and operate six (6) PM CEMS on stacks at the following Units: Paradise Unit

3, Bull Run Unit 1, Colbert Unit 5, Kingston Units 1-9 (one (1) PM CEMS on each flue), and Shawnee Units 1-5.

110. In the event that TVA elects to Retire a Unit scheduled to receive a PM CEMS or, with respect to Colbert Unit 5, elects the Remove from Service option, TVA shall locate a PM CEMS (either the same PM CEMS or a new PM CEMS) at an alternate Unit in the TVA System. TVA shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section VIII (Notices) of the alternate Unit by no later than three (3) years prior to the date that the Unit specified in Paragraph 109 is Retired or Removed from Service. TVA shall comply with all the requirements of this Section for such PM CEMS. The deadline identified in Paragraph 108 shall be adjusted to twelve (12) months after TVA's notice pursuant to this Paragraph.

111. No later than ninety (90) days after TVA begins operation of the PM CEMS, TVA shall conduct tests of each PM CEMS to demonstrate compliance with the PM CEMS installation and correlation plan(s) and QA/QC protocol(s). Within forty-five (45) days of each such test, TVA shall submit the results to EPA, the States, and the Citizen Plaintiffs pursuant to Section VIII (Notices) of this Consent Decree.

112. When TVA submits the applications for amendments to its Title V Permits pursuant to Paragraph 154, those applications shall include a Compliance Assurance Monitoring ("CAM") plan, under 40 C.F.R. Part 64, for the PM Emission Rate specified in Paragraph 100. The PM CEMS required by Paragraphs 107 and 109 may be used in that CAM plan for Bull Run Unit 1, Colbert Unit 5, and Kingston Units 1-9.

c. PM Reporting.

113. Within one hundred eighty (180) days after the date established by this Consent Decree for TVA to achieve and maintain a PM Emission Rate at any TVA System Unit, TVA shall conduct a stack performance test for PM that demonstrates compliance with the Emission Rate required by this Consent Decree. Within forty-five (45) days of the performance test, TVA shall submit the results of the performance test to EPA, the States, and the Citizen Plaintiffs pursuant to Section VIII (Notices) of this Consent Decree. TVA may use the annual stack test requirement established in Paragraph 101, above, to satisfy its obligation to conduct a performance test as required by this Paragraph.

114. Following the installation of each PM CEMS, TVA shall begin and continue to report, pursuant to Section III.I (Periodic Reporting), the data recorded by the PM CEMS, expressed in lb/mmBTU on a three-hour (3-hour) rolling average basis and a twenty-four-hour (24-hour) rolling average basis in electronic format to EPA, the States, and the Citizen Plaintiffs including identification of each 3-hour average and 24-hour average above the applicable PM Emission Rate for Bull Run Unit 1, Colbert Unit 5, and Kingston Units 1-9, as required by Paragraph 100.

E. PROHIBITION ON NETTING OR OFFSETS FROM REQUIRED CONTROLS

115. Emission reductions that result from actions to be taken by TVA after the Consent Decree Obligation Date to comply with the requirements of this Consent Decree shall not be considered as creditable contemporaneous emission decreases for the purpose of netting or offset under the Act's PSD and Nonattainment NSR programs (including any applicable SIP provisions).

116. 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 at a particular TVA System Unit that are greater than those required under this Consent Decree for that particular TVA System Unit. For purposes of this Paragraph, and except as otherwise provided in Paragraph 50, emission reductions achieved at a particular TVA System Unit are greater than those required under this Consent Decree only if they result from the actions described in Subparagraphs 116.a and/or 116.b, below:

a. controlling Shawnee Units 2, 3, 5, 6, 7, 8 and/or 9 to reduce emissions of NO_x and/or SO_2 beyond the requirements of Paragraphs 71 and 87 of this Consent Decree through a federally-enforceable emission limitation, provided that TVA is not otherwise required by the Act or the applicable SIP to control such Units to reduce emissions of NO_x and/or SO_2, or

b. for emission reductions of NO_x, except for Shawnee Unit 10, Retiring a TVA System Unit that does not have the Retire option in the Control Requirement column in the Table in Paragraph 69 except to the extent that TVA Retires such Unit as Additional MW pursuant to Paragraph 119.b, and provided that TVA is not otherwise required by the Act or the applicable SIP to Retire such Unit; and for emission reductions of SO_2, except for Shawnee Unit 10, Retiring a TVA System Unit that does not have the Retire option in the Control Requirement column in the Table in Paragraph 85 except to the extent that TVA Retires such Unit as Additional MW pursuant to Paragraph 119.b, and provided that TVA is not otherwise required by the Act or the applicable SIP to Retire such Unit.

117. Notwithstanding Paragraph 115, TVA may utilize emission reductions of NO_x, SO_2, VOCs, and PM resulting solely from Retiring up to two thousand seven hundred (2,700)

MW from the TVA System, as creditable contemporaneous emission decreases for the purpose of obtaining netting credits for these four pollutants to construct and operate no more than a total of four thousand (4,000) MW of new combined cycle ("CC") combustion turbine electric generating units ("New CC Units") and simple cycle ("CT") turbine electric generating units ("New CT Units") (collectively referred to herein as "New CC/CT Units") to be located at the stationary source where a TVA System Unit is Retired, subject to the limitations described in this Paragraph and Subparagraphs. Of the total 4,000 MW specified herein, TVA shall not construct more than a total of two thousand (2,000) MW of CT capacity.

a. The emission reductions of NO_x, SO_2, VOC, and PM resulting from Retiring a TVA System Unit that TVA intends to utilize for netting purposes to avoid major NSR for such New CC/CT Unit must be contemporaneous and otherwise creditable within the meaning of the Act and the applicable SIP, and TVA must comply with, and is subject to, all requirements and criteria for creating contemporaneous creditable decreases as set forth in 40 C.F.R. § 52.21(b) and the applicable SIP, subject to the limitations of this Paragraph 117.

b. TVA must apply for, and obtain, minor NSR permits for the construction and operation of such New CC/CT Unit(s) from the relevant permitting authority. Such minor NSR permit must include federally-enforceable emission limitations that reflect either Best Available Control Technology ("BACT") or Lowest Achievable Emission Rate ("LAER"), as appropriate, depending upon the attainment classification for the relevant regulated pollutants for which TVA is utilizing emission reductions as provided in this Paragraph to net out of major new source review and that will be emitted from such New CC/CT Unit(s) (including NO_x, SO_2, and PM regulated as primary criteria pollutants and NO_x, SO_2, and VOCs regulated as precursor

pollutants to the formation of the criteria pollutants $PM_{2.5}$ and Ozone) in the area where such New CC/CT Units will be located. The relevant permitting authority where the New CC/CT Units will be constructed shall determine emission limitations for NO_x, SO_2, VOCs, PM, PM_{10} and $PM_{2.5}$ that reflect BACT or LAER, as appropriate, consistent with Sections 165(a)(4), 169(3), 171(3), and 173(a)(2) of the Act, 42 U.S.C. §§ 7475(a)(4), 7479(3), 7501(3), and 7503(a)(3); 40 C.F.R. §§ 52.21(b)(12) and 51.165(a)(1)(xiii); the applicable SIP; and relevant EPA guidance and/or interpretations pertaining to determining BACT and LAER, including EPA's "New Source Review Workshop Manual – Prevention of Significant Deterioration and Nonattainment Area Permitting" (Draft Oct. 1990). In no event shall the emission limitations determined by the relevant permitting authority for NO_x, SO_2, VOC, and $PM_{2.5}$ (filterable) be any less stringent than the emission limitations set forth in Appendix B to this Consent Decree. The emission limitations set forth in Appendix B serve solely as the minimum stringency for emission limitations that will be determined by the relevant permitting authority for such New CC/CT Units and shall not be presumed to be BACT or LAER. Although the permitting authority as part of the permitting action described in this Paragraph shall not determine BACT or LAER to be less stringent than the emission limitations set forth in Appendix B, nothing in this Consent Decree (including Appendix B) shall prevent the permitting authority from establishing more stringent emission limitations than those set forth in Appendix B. For purposes of the permitting action described in this Paragraph, TVA shall not assert that this Consent Decree (including Appendix B) supports imposing a BACT or LAER emission limitation that is no more stringent than the emission limitations set forth in Appendix B.

c. For the minor NSR permitting action specified in Subparagraph 117.b, above, the relevant permitting authority shall comply with the public participation requirements in its SIP for major NSR permitting actions, including: Ala. Admin. Code r. 335-3-14-.01(7) for permitting actions in Alabama, 401 Ky. Admin. Regs. 52:100 for permitting actions in Kentucky, and Tenn. Comp. R. & Regs.1200-3-9-.01(4)(l) for permitting actions in Tennessee. TVA shall provide notice and a copy of its permit application to EPA, the States, and the Citizen Plaintiffs pursuant to Section VIII (Notices) concurrent with its permit application submission to the relevant permitting authority.

d. All emissions of NO_x and SO_2 from any New CC/CT Unit(s) where TVA has utilized netting credits in order to construct such New CC/CT Unit as provided in this Paragraph, shall be treated as emissions from a TVA System Unit solely for purposes of the System-Wide Annual Tonnage Limitations for NO_x and SO_2 and such emissions of NO_x and SO_2 from the New CC/CT Unit(s) are therefore subject to, and shall be included under, the System-Wide Annual Tonnage Limitations for NO_x and SO_2 for the relevant calendar year(s) as specified in the tables in Paragraphs 67 and 82.

e. Nothing in this Paragraph affects the Unit-specific schedule specified in the tables in Paragraphs 69 and 85 for each TVA System Unit.

118. For every emission reduction of NO_x and SO_2 that TVA utilizes as provided in Paragraph 117 to construct a New CC/CT Unit(s), such reduction shall not be available to generate Super-Compliance Allowances within the meaning of Paragraphs 78 and 94 in the calendar year in which TVA utilizes such emission reductions and all calendar years thereafter. In the next periodic progress report required pursuant to Section III.I (Periodic Reporting), TVA

shall report the amount of emission reductions of NO_x and the amount of emission reductions of SO_2 resulting from Retiring a TVA System Unit that TVA utilized as netting credits as provided in Paragraph 117 to construct a New CC/CT Unit(s).

119. Notwithstanding Paragraphs 115, TVA may utilize emission reductions of Greenhouse Gases resulting solely from Retiring a TVA System Unit as creditable contemporaneous emission decreases for the purpose of obtaining netting credits for Greenhouse Gases to construct and operate no more than a total of four thousand (4,000) MW of New CC Units to be located at the stationary source where a TVA System Unit is Retired, subject to the limitations described in this Paragraph and Subparagraphs 119.a through 119.c, below.

a. The emission reductions of Greenhouse Gases resulting from Retiring a TVA System Unit that TVA intends to utilize for netting purposes to avoid major NSR for such New CC Unit must be contemporaneous and otherwise creditable within the meaning of the Clean Air Act and the applicable SIP, and TVA must comply with, and is subject to, all requirements and criteria for creating contemporaneous creditable decreases as set forth in 40 C.F.R. § 52.21(b) and the applicable SIP, subject to the limitations of this Paragraph.

b. For every one (1) MW of New CC Unit capacity that TVA proposes to construct and operate by utilizing Greenhouse Gas emission reductions to avoid major NSR for such New CC Unit, TVA shall Retire at least one (1) MW from the TVA System that is above and beyond the 2,728.8 MW that TVA is required to Retire pursuant to Paragraphs 69 and 85 (referred to herein as "Additional MW"). TVA shall Retire such Additional MW from the TVA System either within one (1) year from the date the New CC Unit commences operation or by no later than the date set forth in the table in Paragraphs 69 and 85 for the TVA System Unit that TVA is

Retiring pursuant to this Paragraph, whichever is sooner. Emission reductions resulting from Retiring such Additional MW are subject to Paragraph 115.

c. Greenhouse Gas emission reductions resulting from Retiring a TVA System Unit may only be available to TVA for netting purposes to avoid major NSR permitting requirements for Greenhouse Gases for the construction and operation of a New CC Unit if TVA satisfies the following requirements: (i) TVA must apply for a minor NSR permit described in Paragraph 117 for the construction and operation of such New CC Unit by no later than June 30, 2012, (ii) TVA must commence construction of the New CC Unit that is the subject of such minor NSR permit application by no later than January 1, 2015, and (iii) by no later than thirty (30) days after the date TVA commences construction of such New CC Unit, TVA must provide notice pursuant to Paragraphs 72 and 88 as to which TVA System Unit(s) TVA will Retire in order for TVA to Retire the requisite Additional MW.

120. Nothing in this Consent Decree shall prevent anyone, including EPA, the States, and the Citizen Plaintiffs from submitting comments during the public comment period specified in Subparagraph 117.c regarding the emission limitations developed by the permitting authority as required by Subparagraph 117.b, including comments regarding the stringency of the emission limitations prescribed in Appendix B, or taking any other lawfully permissible action to challenge any permitting authority's determination pursuant to Subparagraph 117.b or the minor NSR permitting action for such New CC/CT Units.

121. Nothing in this Consent Decree is intended to preclude the emission reductions generated under this Consent Decree from being considered by EPA or Alabama, Kentucky, or Tennessee for the purpose of attainment demonstrations submitted pursuant to § 110 of the Act,

42 U.S.C. § 7410, or in determining impacts on NAAQS, PSD increment, or air quality related values, including visibility, in a Class I area.

F. ENVIRONMENTAL MITIGATION PROJECTS

122. TVA shall fund the Environmental Mitigation Projects ("Projects") described in this Section. These Projects will result in a further reduction of NO_x, SO_2, and PM emissions, and additionally will have the collateral benefit of reducing Greenhouse Gases. TVA shall make payments to the States as further described below in an amount that is no less than $60 million to fund Projects described below. As specified in Section V.F of the Compliance Agreement (Environmental Mitigation Projects), TVA shall spend no less than $290 million to implement the projects described in Appendix C to the Compliance Agreement.

123. As set forth below, the States, by and through their respective Attorneys General or General Counsel, may each submit to TVA Projects within the categories identified for funding. The funds for these Projects will be allocated amongst the States as follows: Tennessee $26.4 million, Kentucky $11.2 million, North Carolina $11.2 million and Alabama $11.2 million. These amounts are referred to below as each State's "allocation."

124. Beginning in 2011, TVA shall disburse to each State the amounts requested by each State, provided that, in any year, TVA shall disburse no more than one-fifth (1/5) of the State's allocation plus any amount by which the State received less than one-fifth (1/5) of its allocation in any prior years until all timely requests have been paid in full by TVA. If by January 31, 2017 any funds remain for which a State has not made a request, TVA shall promptly, but no later than February 29, 2017, notify the States of the remaining amount and the States shall have until March 31, 2017 to jointly provide TVA an agreed-upon method for

equitably reallocating the remaining funds to be spent on Projects identified in this Section by no later than December 31, 2017. In the event the States are unable to agree on a reallocation method, the remaining funds shall by reallocated using the same allocation percentages identified in the preceding Paragraph. TVA shall be obligated to disburse only those funds that are requested by December 31, 2017 in accordance with this Subsection. For funding requests by States commensurate with this Subsection, TVA shall pay funds as requested within thirty (30) days after being notified in writing by the State of its request.

125. The States shall use their best efforts to identify Projects that are located in TVA's power service area or the Tennessee River watershed and shall give a preference to such Projects over Projects outside these areas. However, any Project funding requested by a State that is within the categories identified in Paragraph 128, shall be funded by TVA in accordance with this Paragraph regardless of where in the State the funds will be utilized. TVA shall not have approval rights over the Projects.

126. As an alternative to the method set forth in Paragraph 124, in any year any two or more States may agree together that any State may request any amount individually up to the remainder of its allocation, provided that the total funding requested by the agreeing States for that year does not exceed the maximum TVA would otherwise be required to disburse under Paragraph 124 to the agreeing States for that year.

127. If TVA wishes to use signage, written materials, publications or events to recognize its funding of these Projects, TVA shall clearly state and identify that the funding is being provided pursuant to this Consent Decree.

128. Categories of Projects. The States agree to use money funded by TVA to implement Projects either from the following categories or for the Projects identified in Appendix C to the Compliance Agreement:

a. Purchase and installation of photo-voltaic cells and/or solar thermal systems on buildings;

b. Implementation of projects that reduce idling time from motor vehicles;

c. Projects to conserve energy in new and existing buildings, mobile homes, and modular buildings, including efficient lighting, appliance efficiency improvement projects, weatherization projects, and projects that meet the ENERGY STAR and Home Performance with ENERGY STAR Building qualifications, the Leadership in Energy and Environmental Design ("LEED") Green Building Rating System or an equivalent energy efficiency program approved by the State, or other innovative building efficiency projects approved by the State and/or appropriate review committee;

d. Construction of wind or solar renewable energy production facilities;

e. Installation of cogeneration units (wherein a single fuel source simultaneously produces electricity and useful heat) at industrial manufacturing plants or institutions such as universities, hospitals, prisons, and military bases;

f. Projects that assist smart regional planning to reduce vehicle miles traveled and improve regional air quality;

g. Installation of geothermal equipment;

h. Funding of agricultural and forestry sector use and production of renewable energy and carbon sequestration including but not limited to:

- anaerobic digestion of poultry, swine, and dairy manure to produce methane as a fuel source to displace conventional fuel use,
- installation of wind and solar power projects at farms to power irrigation and provide heat and/or hot water for farm operations,
- production of biodiesel from high oil producing crops grown and converted on-farm for on-farm use,
- funding the procurement of land and necessary equipment to establish urban farms and support the education and institution of urban farming practices in these communities,
- purchasing land buffering national or state forests, parks, and refuges that link important ecological systems in the region to support carbon sequestration efforts,
- use of agricultural or forestry waste products in support of biofuel production,
- development of co-products and by-products of biofuel production from agricultural or forestry resources, and
- other innovative agricultural or forestry projects, including education and training, that meet environmental improvement standards and are approved by the State and/or review committee;

i. Creation of a sustainable revolving loan program or other financing mechanism for homeowners to purchase and install energy efficiency and/or conservation measures with a two (2) to ten (10) year payback period where the repayment occurs over the

defined payback period;

j. Promotion of the use of landfill gas to convert methane to electricity and/or useful heat;

k. Establishment and/or promotion of a tourist shuttle service for key tourist routes in and around the Great Smoky Mountain National Park where the shuttles are powered by electricity, fuel cell, or natural gas and/or funding of the purchase of vehicles and/or operation and maintenance of the equipment;

l. Sponsoring a wood and/or coal burning appliance changeout and retrofit campaign that replaces, retrofits, and/or upgrades inefficient, higher polluting wood/coal burning appliances (e.g., non-EPA certified wood stoves, old technology outdoor wood-fired hydronic heaters) with Energy Star qualified heat pumps, EPA Phase II qualified hydronic-heaters, EPA certified wood stoves and/or cleaner, more energy-efficient wood pellet burning appliances;

m. Implementation of projects to improve energy efficiency or renewable energy projects at water treatment and waste water treatment plants; and

n. Development, manufacture, and commercialization of innovative energy efficiency and renewable energy equipment and biofuel production.

G. CIVIL PENALTY

129. TVA shall pay a total of $10,000,000 in civil penalties as further described in this Section.

130. Pursuant to, and as specified in, Paragraph 91 of the Consent Agreement and Final Order in In re Tennessee Valley Auth., Docket No. CAA-04-2010-1528(b), TVA shall pay the sum of $8,000,000 in civil penalties to EPA.

131. Within thirty (30) days after the Date of Entry of this Consent Decree, TVA shall pay a total of $2,000,000 in civil penalties to Alabama, Kentucky, and Tennessee. TVA shall pay a civil penalty to Alabama in the amount of $500,000. Payment shall be made by check made out to the Alabama Department of Environmental Management and shall be mailed to: Office of General Counsel, Alabama Department of Environmental Management, PO Box 301463, Montgomery, Alabama, 36130-1463. TVA shall pay a civil penalty to Kentucky in the amount of $500,000. Payment shall be made by check made out to the Kentucky State Treasurer and shall be mailed to: Jeff Cummins, Acting Director, Division of Enforcement, 300 Fair Oaks Lane, Frankfort, Kentucky, 40601. TVA shall pay a civil penalty to Tennessee in the amount of $1,000,000. Payment shall be made by check made out to Treasurer, State of Tennessee and shall be mailed to: Tennessee Department of Environment & Conservation, Division of Fiscal Services – Consolidated Fees Section, 14th Floor L&C Tower, 401 Church Street, Nashville, Tennessee 37243 and shall reference this Consent Decree. At the time of payment, TVA shall also provide notice of its payment to EPA, the States, and Citizen Plaintiffs pursuant to Section VIII (Notices) of this Consent Decree, referencing the civil action case name and case number.

H. RESOLUTION OF CLAIMS AGAINST TVA

132. Except as expressly provided in Paragraphs 134-135 below, the States and the Citizen Plaintiffs agree that this Consent Decree resolves all civil claims arising from any modifications commenced at any TVA System Unit that could have been alleged against TVA prior to the Date of Lodging of this Consent Decree for violations of (a) Sections 165 and 173 of Parts C and D of Subchapter I of the Act, 42 U.S.C. §§ 7475 and 7503, and the implementing PSD and Nonattainment NSR provisions of the relevant SIPs, (b) Section 111 of the Act, 42

U.S.C. §§ 7411, and 40 C.F.R. §§ 60.14 and 60.15, (c) Sections 502(a) and 504(a) of the Act, 42 U.S.C. §§ 7661a(a) and 7661c(a), but only to the extent that such claims are based on TVA's failure to obtain an operating permit that reflects applicable requirements imposed under the PSD and Nonattainment NSR provisions of Subchapter I or Section 111 of the Act, and (d) the federally approved and enforceable minor NSR programs of Alabama, Kentucky, and Tennessee.

133. The States and Citizen Plaintiffs expressly do not join in giving TVA the covenant provided by EPA through Paragraph 139 of the Compliance Agreement, and reserve their rights to bring any actions against TVA for any claims arising after the Date of Lodging of this Consent Decree.

134. Notwithstanding Paragraph 133, the States and the Citizen Plaintiffs release TVA from any civil claim that may arise under the PSD and/or Nonattainment NSR provisions of the Act as described in Paragraph 132 (i.e., 42 U.S.C. §§ 7475 and 7503) and the implementing provisions of the relevant SIP, for TVA's performance of activities that this Consent Decree expressly directs TVA to undertake pursuant to Paragraphs 69 and 85 (within Alabama, which meet the criteria of Ala. Admin. Code r. 335-3-14-.04(8)(m)), except to the extent that (a) such activities would cause a significant increase in the emission of a regulated NSR pollutant other than NO_x, SO_2, and PM, in which event this release will not extend to any claim relating to such regulated NSR pollutant for which there is a significant increase or (b) a Unit is Repowered to Renewable Biomass.

135. Solely with regard to claims of the Citizen Plaintiffs, the claims of the Citizen Plaintiffs resolved by Paragraph 132 above do not include any claims based upon the regulated pollutant sulfuric acid mist ("SAM" or "H_2SO_4").

I. PERIODIC REPORTING

136. Beginning six (6) months after the Consent Decree Obligation Date, and continuing annually on April 30 each year thereafter until conditional termination of enforcement through this Consent Decree as provided in Paragraph 214, and in addition to any other express reporting requirement in this Consent Decree, TVA shall submit to EPA, the States, and the Citizen Plaintiffs a progress report in compliance with Appendix A.

137. In any periodic progress report submitted pursuant to this Section, TVA may incorporate by reference information previously submitted under its Title IV and/or Title V permitting requirements, provided that TVA attaches the Title IV and/or Title V permit report, or the relevant portion thereof, and provides a specific reference to the provisions of the Title IV and/or Title V permit report that are responsive to the information required in the periodic progress report.

138. Other express reporting requirements. In addition to the annual progress reports required pursuant to Paragraph 136 and Appendix A, TVA shall submit to EPA, the States, and the Citizen Plaintiffs the information otherwise required by this Consent Decree in the manner and by the dates set forth herein, including but not limited to, the information required by Paragraphs 72, 73, 84, 88, 89, 104, 105, 110, 111, 113, 131, 139, 148, 157, and 191 and Subparagraph 117.c.

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

violation and all measures taken or to be taken by TVA to prevent such violations in the future and measures taken or to be taken to mitigate the environmental effects of such violation, if any.

140. Each report shall be signed by TVA's Vice President of Environmental Permitting and Compliance or his or her equivalent or designee of at least the rank of Vice President, and shall contain the following certification:

> This information was prepared either by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my evaluation, or the direction and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, I hereby certify under penalty of law that, to the best of my knowledge and belief, this information is true, accurate, and complete. I understand that there are significant penalties for submitting false, inaccurate, or incomplete information to EPA.

J. REVIEW AND APPROVAL OF SUBMITTALS

141. Whenever a plan, report, or other submission required by this Consent Decree is required to be submitted to EPA for review or approval, EPA (in consultation with the States and the Citizen Plaintiffs) may approve the submittal or decline to approve it and provide written comments explaining the basis for declining such approval. Within sixty (60) days of receiving written comments from EPA, TVA shall either (a) revise the submittal consistent with the written comments and provide the revised submittal to EPA with copies to the States and the Citizen Plaintiffs pursuant to Section VIII (Notices) of this Consent Decree; or (b) submit the matter for dispute resolution pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement.

142. Upon receipt of EPA's final approval of the submittal, or upon completion of dispute resolution under the Compliance Agreement and, if applicable, dispute resolution under Section VI (Dispute Resolution) of this Consent Decree as provided by Section IV (Coordination

of Oversight and Enforcement) of this Consent Decree, TVA shall implement the approved submittal in accordance with the schedule specified therein or, if subject to dispute resolution pursuant to Section VI (Dispute Resolution) of this Consent Decree as provided by Section IV (Coordination of Oversight and Enforcement) of this Consent Decree, a schedule established by the Court.

K. STIPULATED PENALTIES

143. For any failure by TVA to comply with the terms of this Consent Decree, and subject to the provisions of Sections IV (Coordination of Oversight and Enforcement), V (Force Majeure), and VI (Dispute Resolution), TVA shall pay, within thirty (30) days after receipt of written demand to TVA by a State or the Citizen Plaintiffs, the following stipulated penalties:

Consent Decree Violation	**Stipulated Penalty**
a. Failure to pay the civil penalty as specified in Section III.G (Civil Penalty) of this Consent Decree	$10,000 per day
b. Failure to comply with any applicable PM Emission Rate where the violation is less than five percent (5%) in excess of the limits set forth in this Consent Decree	$2,500 per day per violation
c. Failure to comply with any applicable PM Emission Rate where the violation is equal to or greater than five percent (5%) but less than ten percent (10%) in excess of the limits set forth in this Consent Decree	$5,000 per day per violation
d. Failure to comply with any applicable PM Emission Rate where the violation is equal to or greater than ten percent (10%) in excess of the limits set forth in this Consent Decree	$10,000 per day per violation

Consent Decree Violation	**Stipulated Penalty**
e. Failure to comply with an applicable System-Wide Annual Tonnage Limitation for SO_2 set forth in this Consent Decree	$5,000 per ton for the first 1,000 tons, and $10,000 per ton for each additional ton above 1,000 tons, plus the surrender of SO_2 Allowances in an amount equal to two (2) times the number of tons by which the limitation was exceeded.
f. Failure to Remove from Service as required by Paragraphs 69 and 85 of this Consent Decree any one or more of the following Units: the two (2) Units at the John Sevier plant that TVA indicated pursuant to Paragraphs 72 and 88 that it will Remove from Service and Colbert Units 1-5	$10,000 per day per violation during the first thirty (30) days, $37,500 per day per violation thereafter
g. Failure to comply with an applicable System-Wide Annual Tonnage Limitation for NO_x set forth in this Consent Decree	$5,000 per ton for the first 1,000 tons, and $10,000 per ton for each additional ton above 1,000 tons, plus the surrender of annual NO_x Allowances in an amount equal to two (2) times the number of tons by which the limitation was exceeded.
h. Failure to comply with the requirements for NO_x or SO_2 in Paragraphs 71 or 87 of this Consent Decree	$2,500 per day per violation
i. Failure to provide notice as required by Paragraphs 72, 73, 84, 88, and/or 89 of this Consent Decree	$1,000 per day for the first fifteen (15) days, $15,000 per day for each day thereafter
j. Failure to install, commence operation of, and/or Continuously Operate a pollution control technology as required by Paragraphs 69, 85, and/or 98 of this Consent Decree	$10,000 per day per violation during the first thirty (30) days, $37,500 per day per violation thereafter
k. Failure to Retire or Repower a Unit as required by Paragraphs 69 and 85 of this Consent Decree	$10,000 per day per violation during the first thirty (30) days, $37,500 per day per violation thereafter

Consent Decree Violation	**Stipulated Penalty**
l. Failure to comply with the PM optimization requirements of Paragraph 99 of this Consent Decree	$2,500 per day per violation during the first thirty (30) days, $7,500 per day per violation thereafter
m. Failure to install and/or operate CEMS as required under this Consent Decree	$1,000 per day per violation
n. Failure to conduct stack tests for PM as required under this Consent Decree	$1,000 per day per violation
o. Failure to apply for any permit required under this Consent Decree	$1,000 per day per violation
p. Failure to timely submit, modify, and/or implement, as approved, the reports, plans, studies, analyses, protocols, and/or other submittals required by this Consent Decree	$750 per day per violation during the first ten (10) days, $1,000 per day per violation thereafter
q. Using, selling, banking, trading, or transferring SO_2 Allowances except as permitted under this Consent Decree	The surrender of SO_2 Allowances in an amount equal to four (4) times the number of SO_2 Allowances used, sold, banked, traded, or transferred in violation of this Consent Decree
r. Failure to surrender SO_2 Allowances as required under this Consent Decree	(a) $37,500 per day plus (b) $1,000 per allowance not surrendered
s. Using, selling, banking, trading, or transferring NO_x Allowances except as permitted under this Consent Decree	The surrender of NO_x Allowances in an amount equal to four (4) times the number of NO_x Allowances used, sold, banked, traded, or transferred in violation of this Consent Decree
t. Failure to surrender NO_x Allowances as required under this Consent Decree	(a) $37,500 per day plus (b) $1,000 per allowance not surrendered
u. Using emission reductions from Retiring a TVA System	$2,500 per day per violation during the first 30 days, $10,000

Consent Decree Violation	**Stipulated Penalty**
Unit except as provided in Paragraphs 116 and 117 of this Consent Decree	per day per violation thereafter
v. Failing to comply with the requirements of Paragraph 117 of this Consent Decree if TVA uses emission reductions from Retiring a TVA System Unit to construct a New CC/CT Unit	$2,500 per day per violation during the first thirty (30) days, $10,000 per day per violation thereafter
w. Failing to comply with the requirements of Paragraph 119 of this Consent Decree if TVA uses emission reductions in Greenhouse Gases to construct a New CC Unit	$2,500 per day per violation during the first thirty (30) days, $10,000 per day per violation thereafter
x. Failure to fund the Environmental Mitigation Projects in compliance with Section III.F (Environmental Mitigation Projects) of this Consent Decree	$5,000 per day for the first thirty (30) days, $10,000 per day for each day thereafter
y. Any other violation of this Consent Decree	$1,000 per day per violation

144. All stipulated penalties shall begin to accrue on the day after the performance is due or on the day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases, whichever is applicable. Nothing in this Consent Decree shall prevent the simultaneous accrual of separate stipulated penalties for separate violations of this Consent Decree.

145. TVA shall pay all stipulated penalties within thirty (30) days of receipt of written demand to TVA from any or all Plaintiffs (referred to herein as the "demanding Party"), and shall continue to make such payments every thirty (30) days thereafter until the violation(s) no longer continues, unless TVA elects within fifteen (15) business days of receipt of written demand to TVA from the demanding Party to dispute the accrual of stipulated penalties in accordance with the provisions in Section VI (Dispute Resolution) of this Consent Decree, subject to Section IV (Coordination of Oversight and Enforcement) of this Consent Decree.

146. Stipulated penalties shall continue to accrue as provided in accordance with Paragraph 144 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 written summary of the demanding Party that is not challenged within the time permitted pursuant to Section VI (Dispute Resolution) of this Consent Decree and that is not submitted to the Court for resolution, accrued stipulated penalties agreed or determined to be owing, together with accrued interest, shall be paid within thirty (30) days of the effective date of the agreement;

b. If the dispute is submitted to the Court and the demanding Party prevails in whole or in part, TVA shall pay, within sixty (60) days of receipt of the Court's decision or order, all accrued stipulated penalties determined 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 TVA or the demanding Party, TVA shall, within fifteen (15) days of receipt of the final appellate court decision, pay all accrued stipulated penalties determined to be owing, together with interest accrued on such stipulated penalties determined to be owing by the appellate court.

147. Notwithstanding any other provision of this Consent Decree, the accrued stipulated penalties agreed to by the demanding Party and TVA, or determined through dispute resolution, to be owing may be less than the stipulated penalty amounts set forth in Paragraph 143.

148. Monetary stipulated penalties due and owing to Alabama, Kentucky, or Tennessee shall be paid in the manner specified in Paragraph 131. Monetary stipulated penalties due and owing as a result of a demand from North Carolina or the Citizen Plaintiffs shall be paid as specified in Section 304(g)(1) of the Act, 42 U.S.C. § 7604(g)(1). At the time of payment, TVA shall provide notice of payment to EPA, the States, and the Citizen Plaintiffs, referencing the relevant case names and case numbers in accordance with Section VIII (Notices) of this Consent Decree. All SO_2 and NO_x Allowance surrender stipulated penalties shall comply with the allowance surrender procedures set forth in Paragraphs 80 (for NO_x) and 96 (for SO_2).

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

L. PERMITS

150. Unless expressly stated otherwise in this Consent Decree, in any instance where otherwise applicable law or this Consent Decree requires TVA to secure a permit to authorize construction or operation of any device, including all construction and operating permits required under state law, TVA shall make such application in a timely manner.

151. Notwithstanding Paragraph 150, nothing in this Consent Decree shall be construed to require TVA to apply for or obtain a PSD or Nonattainment NSR permit for

physical changes in, or changes in the method of operation of, any TVA System Unit that would give rise to claims resolved by Paragraphs 132 or 134 of this Consent Decree.

152. When permits or permit applications are required pursuant to Paragraphs 50, 150, 154, 155, 156, and 158, TVA shall complete and submit applications for such permits to Alabama, Kentucky, and Tennessee, whichever is appropriate, to allow sufficient time for all legally required processing and review of the permit request, including requests for additional information by such States. Any failure by TVA to submit a timely permit application for TVA System Units shall bar any use by TVA of Section V (Force Majeure) of this Consent Decree, where a Force Majeure claim is based on permitting delays.

153. Notwithstanding the reference to Title V permits in this Consent Decree, the enforcement of such permits shall be in accordance with their own terms and the Act and its implementing regulations, including the federally approved Alabama, Kentucky, and Tennessee Title V programs. The Title V permit 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 XVI (Conditional Termination of Enforcement Under Decree) of this Consent Decree.

154. Within three (3) years from the Consent Decree Obligation Date, unless otherwise specified in this Paragraph, and in accordance with federal and/or state requirements for modifying or renewing a Title V permit, TVA shall amend any applicable Title V permit application, or apply for amendments to its Title V permits, to include a schedule for all system-wide, Unit-specific, and plant-specific performance, operational, maintenance, and control

technology requirements established by this Consent Decree including, but not limited to, emission rates, installation and/or Continuous Operation of SCRs and/or FGDs, tonnage limitations, and the requirements pertaining to the surrender of NO_x and SO_2 Allowances. For Units in Paragraphs 69 and 85 with two or more methods specified in the Control Requirement column and that do not have a Remove from Service option, TVA shall apply to modify, renew, or obtain any applicable Title V permit as required by this Paragraph within twelve (12) months of making an election as to the method TVA will employ for the Unit. For Units with the Remove from Service option in the Control Requirement column in Paragraphs 69 or 85, TVA shall apply to modify, renew, or obtain any applicable Title V permit as required by this Paragraph within twelve (12) months of electing to either install and operate FGD(s) and SCR(s), Repower to Renewable Biomass, or Retire.

155. By no later than one (1) year after the date specified in Paragraphs 69 and 85 for the Control Requirement for each Unit, TVA shall (a) apply to include the requirements and limitations enumerated in this Consent Decree into federally-enforceable permits such that the requirements and limitations of this Consent Decree become and remain "applicable requirements" as that term is defined in 40 C.F.R. § 70.2 and/or (b) request site-specific amendments to the applicable SIPs for Alabama and Tennessee (but not for Kentucky) to reflect all new requirements applicable to each Unit and at each plant in the TVA System. For purposes of this Consent Decree, the federally enforceable permit(s) issued by Kentucky must be issued by Kentucky under its authority under its SIP to issue permits and not solely under Kentucky's authority to issue permits pursuant to its Title V program.

156. Prior to conditional termination of enforcement through this Consent Decree, TVA shall apply for and obtain enforceable provisions in its Title V permits for the TVA System that incorporate (a) any Unit-specific requirements and limitations of this Consent Decree, such as performance, operational, maintenance, and control technology requirements, (b) the requirement to Surrender NO_x and SO_2 Allowances, and (c) the System-Wide Annual Tonnage Limitations.

157. TVA shall provide EPA, the States, and the Citizen Plaintiffs with a copy of each application for any permit required pursuant to this Section, including any federally enforceable permit or Title V permit or modification, and any site-specific SIP amendment, as well as a copy of any permit or SIP amendment proposed as a result of such application, to allow for timely participation in any public comment opportunity.

158. In the event that EPA promulgates a final rule containing revisions to the Effluent Limitations Guidelines for the Steam Electric Power Generating point source category, by no later than twelve (12) months after the date EPA publishes the final rule in the Federal Register (unless additional time is required for studies or data collection mandated by the final rule), TVA shall submit applications to the relevant permitting authority to obtain National Pollutant Discharge Elimination System ("NPDES") permit renewals (in the case of expiring permits); permit renewal modifications (in the case of already submitted permit renewal applications); or permit modification requests (in the case of existing, non-expired permits) to include legally-applicable requirements of the revised Effluent Limitations Guidelines relating to wastewaters from Flue Gas Desulfurization Systems in each of its NPDES permits for the TVA System Units that are subject to the revised Effluent Limitation Guidelines and are equipped with a Flue Gas

Desulfurization System. TVA shall include all the relevant information necessary for the permitting authority to expeditiously incorporate the Effluent Limitation Guideline requirements into each of TVA's NPDES permits, and shall promptly respond to any additional requests for information from the permitting authority.

159. If TVA proposes to sell or transfer to an entity unrelated to TVA ("Third Party") part or all of TVA's operational or ownership interest in a TVA System Unit, TVA shall comply with the requirements of Section IX (Sales or Transfers of Operational or Ownership Interests) with regard to that Unit prior to any such sale or transfer.

IV. COORDINATION OF OVERSIGHT AND ENFORCEMENT

160. Oversight and Enforcement of Parallel Provisions of the Compliance Agreement and this Consent Decree.

a. EPA and TVA in the Compliance Agreement, and TVA, the States, and the Citizen Plaintiffs in this Consent Decree, are entering into separate agreements with Parallel Provisions to resolve TVA's alleged violations of the Act. This Section of the Consent Decree establishes the manner in which enforcement and oversight (including resolution of disputes) pertaining to Parallel Provisions will occur.

b. Except where there is an unreasonable delay in resolving a dispute pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement, a State or the Citizen Plaintiffs shall not invoke Section VI (Dispute Resolution) of this Consent Decree pertaining to a Parallel Provision until TVA has resolved any disputes between it and EPA pertaining to such Parallel Provision pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement either through an agreement reached with EPA pursuant to Section VIII of the Compliance Agreement

or a decision issued by the Region 4 Air Director pursuant to Paragraph 183 of the Compliance Agreement. TVA shall not seek judicial review in any court of any agreement reached with EPA pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement or any decision issued by the Region 4 Air Director pursuant to Paragraph 183 of the Compliance Agreement. Although neither the Compliance Agreement nor any determinations that EPA makes under it are before this Court for judicial review, and are not subject to this Court's judicial review now or in the future, this Court should accord appropriate weight to EPA's determinations made either pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement or as provided in Paragraphs 162, 163, and 164, below. For example, where EPA's determination made either pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement or as provided in Paragraphs 162, 163, or 164, below, relies on EPA's technical expertise, determinations, or interpretation of statutes EPA administers and/or of regulations EPA promulgated (among other circumstances), such determination should be entitled to judicial deference consistent with prevailing law regarding judicial deference to such agency technical expertise, determinations, or interpretation of statutes or regulations.

c. Nothing in this Consent Decree shall be construed to affect the authority of EPA or a State under applicable federal statutes or regulations and applicable state statutes and regulations or any other applicable provisions to seek appropriate relief to address an imminent and substantial endangerment to public health or welfare, or the environment.

161. Availability of Dispute Resolution under Section VI of this Consent Decree.

a. If there has been a resolution of a dispute pertaining to a Parallel Provision pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement, a State or the

Citizen Plaintiffs may only invoke the dispute resolution procedures of Section VI (Dispute Resolution) of this Consent Decree pertaining to that resolution solely to seek a resolution that is more stringent than the resolution reached through Section VIII (Dispute Resolution) of the Compliance Agreement.

b. TVA may invoke Section VI (Dispute Resolution) of this Consent Decree regarding a Parallel Provision only (i) if a State or the Citizen Plaintiffs are acting in contravention to Section IV (Coordination of Oversight and Enforcement) of this Consent Decree or (ii) as necessary to address any conflict between this Consent Decree and the Compliance Agreement due to a change to the Compliance Agreement that is made subsequent to the Effective Date of the Compliance Agreement as that term is defined therein.

162. Disputes Involving Parallel Provisions Resolved Through Section VIII of the Compliance Agreement.

a. If a State or the Citizen Plaintiffs invoke Section VI (Dispute Resolution) of this Consent Decree to seek a resolution of a dispute under this Consent Decree pertaining to a Parallel Provision that is more stringent than the resolution reached through Section VIII (Dispute Resolution) of the Compliance Agreement, the Court should accord appropriate weight to the resolution of the dispute by EPA under Section VIII of the Compliance Agreement as described in Subparagraph 160.b, above.

b. TVA shall be bound by and hereby stipulates to be bound by any agreement reached with EPA pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement, any decision issued by the Region 4 Air Director pursuant to Paragraph 183 of the Compliance Agreement, and/or any written determination pursuant to Subparagraph 163 and/or 164, below,

and it shall not seek relief from this Court that is less stringent than, or is otherwise in any way inconsistent with, any agreement reached with EPA pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement, any decision issued by the Region 4 Air Director pursuant to Paragraph 183 of the Compliance Agreement, and/or any written determination pursuant to Paragraphs 163 and/or 164 below. TVA may inform the Court of the position that it presented to EPA during the Dispute Resolution process; provided that TVA shall not argue to this Court that any agreement reached with EPA pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement or any decision issued by the Region 4 Air Director, or the basis for such decision, was wrong (either technically, legally, or factually) or otherwise in error.

163. Process for Requesting that the Court Exercise Jurisdiction. A Party shall provide notice as further described in this Paragraph before it can request that the Court exercise jurisdiction (including under Sections V (Force Majeure), VI (Dispute Resolution), or XI (Retention of Jurisdiction)), regarding implementation of this Consent Decree. The Party seeking to request that the Court exercise jurisdiction shall notify the other Parties to this Consent Decree and EPA of such intent pursuant to Section VIII (Notices) of this Consent Decree and shall include a description of the issue in such notice.

a. If the issue involves a Parallel Provision that has not already been the subject of dispute and resolution pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement, EPA may provide the Parties with a written determination of EPA's view regarding the issue within forty-five (45) days following the notice. No action before this Court may be taken by any Party (i) for at least fifteen (15) business days following EPA's written determination or, (ii) if EPA does not make such written determination, then for at least forty-

five (45) days following the notice described previously in this Paragraph. If TVA does not invoke Section VIII (Dispute Resolution) of the Compliance Agreement within fifteen (15) business days following receipt of EPA's written determination, then TVA shall be bound by EPA's written determination in any action before this Court regarding such issue, as described in Subparagraph 162.b, above. TVA shall furnish to the Court EPA's written determination under this Paragraph no later than the filing of its next brief, motion, or other communication with the Court regarding the issue. The Court should accord appropriate weight to EPA's written determination as described in Subparagraph 160.b, above. If TVA does invoke Section VIII (Dispute Resolution) of the Compliance Agreement within fifteen (15) business days of receipt of EPA's written determination, the Parties may not proceed in this Court until EPA and TVA have resolved such dispute pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement.

b. If the issue involves a Parallel Provision that has already been the subject of dispute and resolution pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement, then the Party requesting that the Court exercise jurisdiction shall provide such notice at least fifteen (15) business days before requesting that the Court exercise jurisdiction and must furnish a copy of TVA's written objection as provided in Paragraph 181 of the Compliance Agreement and the final resolution rendered pursuant to either Paragraph 182 or Paragraph 183 of Section VIII (Dispute Resolution) of the Compliance Agreement to the Court no later than the filing of its next brief, motion, or other communication with the Court regarding that issue. If EPA provides the Party with a written determination of its view regarding the issue to be presented to the Court, such Party shall furnish a copy of EPA's written determination to the

Court with its next filing. The Court should accord appropriate weight to EPA's written determination as described in Subparagraph 160.b, above.

c. If the issue involves a Parallel Provision that is the subject of a dispute pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement but there is an unreasonable delay in resolving the dispute under Section VIII (Dispute Resolution) of the Compliance Agreement, then the Parties may proceed in this Court prior to a resolution by EPA and TVA of such dispute. The Party requesting that the Court exercise jurisdiction shall provide such notice at least fifteen (15) business days before requesting that the Court exercise jurisdiction. No action before this Court may be taken by any Party during this 15 business day period. If the Region 4 Air Director issues a decision pursuant to Paragraph 183 of the Compliance Agreement during this 15 business day period, then TVA shall be bound by such decision in any action before this Court regarding such issue, as described in Subparagraph 162.b, above, and the Party requesting that the Court exercise jurisdiction may only seek a more stringent resolution, as described in Paragraph 161.a. Such Party must furnish a copy of the Region 4 Air Director's decision, if any, to the Court no later than the filing of its next brief, motion, or other communication with the Court regarding the issue. The Court should accord appropriate weight to the Region 4 Air Director's decision as described in Subparagraph 160.b, above.

164. Assessment and Collection of Stipulated Penalties.

a. TVA shall not be required to pay additional stipulated penalties under the Consent Decree for a violation of the same Parallel Provision of the Compliance Agreement if TVA has paid stipulated penalties pursuant to a demand made by EPA (in consultation with the States and the Citizen Plaintiffs). Notwithstanding the preceding sentence, TVA may be required to pay

additional stipulated penalties under this Consent Decree for a violation of the same Parallel Provision of the Compliance Agreement if the stipulated penalty that EPA demanded (and that TVA paid) is inappropriate in light of the circumstances, taking into account the appropriate weight to be accorded to EPA's written determination as described in Subparagraph 160.b, above. Nothing in this Paragraph shall prevent EPA and the States of Alabama, Kentucky, and Tennessee from sharing the payment of a stipulated penalty provided that the violation giving rise to payment of a stipulated penalty is a violation of a Parallel Provision of this Consent Decree. Where a violation of a Parallel Provision is facility specific, EPA has agreed to split the collected stipulated penalty evenly with the State where such facility is located. Where a violation of a Parallel Provision is not facility specific, EPA has agreed to split the collected stipulated penalty with the States of Alabama, Kentucky, and Tennessee as follows: 50% to EPA and 50% allocated equally among the States of Alabama, Kentucky, and Tennessee.

b. If a State or the Citizen Plaintiffs believes there has been a violation of a Parallel Provision under this Consent Decree but EPA has not taken action under the Compliance Agreement to assess stipulated penalties for such a violation through the Compliance Agreement, a State or the Citizen Plaintiffs may demand the payment of stipulated penalties pursuant to Section III.K (Stipulated Penalties) of this Consent Decree only after it has first consulted with EPA regarding the alleged violation as further described in this subparagraph. The State or the Citizen Plaintiffs shall provide EPA with a sixty (60) day period to evaluate the alleged violation and to provide a written determination as to whether it believes there is a violation of the Parallel Provision of the Compliance Agreement. The Court should accord appropriate weight to EPA's written determination as described in Subparagraph 160.b, above.

165. Enforcement of Parallel Provisions under this Consent Decree. Any or all Plaintiffs may demand the payment of stipulated penalties or seek other appropriate relief as allowed by Section XI (Retention of Jurisdiction) or any other provision of this Consent Decree for TVA's failure to comply with the terms of a Parallel Provision of this Consent Decree if (i) after consulting with EPA as required in Paragraph 164.b, EPA does not take action under the Compliance Agreement to assess stipulated penalties for such alleged violation, or, as described in Paragraph 164.a., EPA assesses a stipulated penalty that is inappropriate in light of the circumstances, (ii) TVA has failed to comply with any agreement reached with EPA pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement or any decision issued by the Region 4 Air Director pursuant to Paragraph 183 of the Compliance Agreement, or (iii) TVA remains in non-compliance despite assessment of stipulated penalties.

V. FORCE MAJEURE

166. 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 TVA, its contractors, or any entity controlled by TVA that delays compliance with any provision of this Consent Decree or otherwise causes a violation of any provision of this Consent Decree despite TVA's best efforts to fulfill the obligation. "Best efforts to fulfill the obligation" include using the 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 any adverse environmental effect of the violation is minimized to the greatest extent possible.

167. Notice of Force Majeure Events. If any event occurs or has occurred that may delay compliance with or otherwise cause a violation of any obligation under this Consent

Decree, as to which TVA intends to assert a claim of Force Majeure, TVA shall notify EPA, the States, and the Citizen Plaintiffs in writing as soon as practicable, but in no event later than twenty-one (21) business days following the date TVA 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, TVA shall reference this Paragraph of this Consent Decree and describe the anticipated length of time that the delay or violation may persist, the cause or causes of the delay or violation, all measures taken or to be taken by TVA to prevent or minimize the delay and any adverse environmental effect of the violation, the schedule by which TVA proposes to implement those measures, and TVA's rationale for attributing a delay or violation to a Force Majeure Event. TVA shall adopt all reasonable measures to avoid or minimize such delays or violations. TVA shall be deemed to know of any circumstance which TVA, its contractors, or any entity controlled by TVA knew or should have known.

168. Failure to Give Notice. If TVA fails to comply with the notice requirements of this Section for any Parallel Provision, EPA (in consultation with the States and the Citizen Plaintiffs) may void TVA's claim for Force Majeure as to the specific event for which TVA has failed to comply with such notice requirement. If TVA fails to comply with the notice requirements of this Section for any provision that is not a Parallel Provision of this Consent Decree ("Non-Parallel Provision") the States and the Citizen Plaintiffs may void TVA's claim for Force Majeure as to the specific event for which TVA has failed to comply with such notice requirement.

169. Response. EPA (for any Parallel Provision, and as required by the Compliance Agreement) and the States and the Citizen Plaintiffs (for any Non-Parallel Provision) shall notify

TVA in writing regarding TVA's claim of Force Majeure as soon as reasonably practicable. For any Parallel Provisions, if EPA, after consultation with the States and the Citizen Plaintiffs, agrees that a delay in performance has been or will be caused by a Force Majeure Event, the Plaintiffs and TVA under this Consent Decree (and EPA and TVA under the Compliance Agreement), 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. In such circumstances, an appropriate modification shall be made pursuant to Section XII (Modification) of this Consent Decree. For any Non-Parallel Provision, if the States and the Citizen Plaintiffs agree that a delay in performance has been or will be caused by a Force Majeure Event, the Plaintiffs and TVA 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. In such circumstances, an appropriate modification shall be made pursuant to Section XII (Modification) of this Consent Decree.

170. Disagreement. For any Parallel Provision, if EPA, after consultation with the States and the Citizen Plaintiffs, does not accept TVA's claim of Force Majeure, or if EPA and TVA cannot agree on the length of the delay actually caused by the Force Majeure Event, the matter shall be resolved in accordance with Section VIII (Dispute Resolution) of the Compliance Agreement and as provided in Section IV (Coordination of Oversight and Enforcement) of this Consent Decree. For any Parallel Provision, a Plaintiff may seek a resolution that is more stringent than the resolution reached through Section VIII (Dispute Resolution) of the Compliance Agreement as provided in Paragraph 161.a or if there is an unreasonable delay in resolving a dispute pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement,

the Plaintiffs may pursue dispute resolution or other available remedies, subject to the limitations in Section IV (Coordination of Oversight and Enforcement) of this Consent Decree. For any Non-Parallel Provision, if the States and the Citizen Plaintiffs do not accept TVA's claim of Force Majeure, or if the Parties cannot agree on the length of the delay actually caused by the Force Majeure Event, the matter shall be resolved in accordance with Section VI (Dispute Resolution) of this Consent Decree.

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

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

173. Potential Force Majeure Events. Depending upon the circumstances related to an event and TVA'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, other than by TVA, orders by a government official, government agency,

other regulatory authority, or a regional transmission organization, acting under and authorized by applicable law, that directs TVA to supply electricity in response to a system-wide (state-wide or regional) emergency. Depending upon the circumstances and TVA's response to such circumstances, failure of a permitting authority to issue a necessary permit in a timely fashion may constitute a Force Majeure Event where the failure of the permitting authority to act is beyond the control of TVA and TVA has taken all steps available to it to obtain the necessary permit, including, but not limited to submitting a complete permit application; responding to requests for additional information by the permitting authority in a timely fashion; and accepting lawful permit terms and conditions after expeditiously exhausting any legal rights to appeal terms and conditions imposed by the permitting authority.

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

VI. DISPUTE RESOLUTION

175. Subject to, and only as allowed by, Section IV (Coordination of Oversight and Enforcement), the dispute resolution procedures provided by this Section shall be available to resolve all disputes arising under this Consent Decree. The procedures provided in Paragraphs 176-183 are limited by the provisions set forth in Section IV (Coordination of Oversight and Enforcement) of this Consent Decree.

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

177. Disputes submitted to dispute resolution under this Section shall, in the first instance, be the subject of informal negotiations among the disputing Parties (and EPA). Such period of informal negotiations shall not extend beyond thirty (30) days from the date of the first meeting among the disputing Parties' representatives unless they agree in writing to shorten or extend this period. During the informal negotiations period, the disputing Parties may also submit their dispute to a mutually agreed upon alternative dispute resolution ("ADR") forum if

the Parties agree that the ADR activities can be completed within the 30-day informal negotiations period (or such longer period as the Parties may agree to in writing).

178. If the disputing Parties are unable to reach agreement during the informal negotiation period, the relevant disputing Plaintiff (e.g., the Plaintiff that initiated dispute resolution pursuant to this Section through the notice described in Paragraph 176) shall provide TVA (and EPA) with a written summary of its position regarding the dispute. The written position provided by the disputing Plaintiff shall be considered binding unless, within forty-five (45) days thereafter, TVA seeks judicial resolution of the dispute by filing a petition with this Court. The disputing Plaintiff, or any other Party, may respond to the petition within forty-five (45) days of filing. The Parties shall provide to EPA copies of all filings with the Court.

179. In addition to any other methods set forth in this Section for altering time periods, the time periods set out in this Section may be shortened or extended upon motion to the Court of one of the Parties to the dispute, explaining the Party's basis for seeking such a scheduling modification.

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

181. Subject only to the exceptions set forth in Paragraph 182, the dispute resolution process set forth in this Section is mandatory once a notice is served under Paragraph 176. If notice is served under Paragraph 176, no Party may seek resolution of a dispute by the Court without first completing dispute resolution pursuant to Paragraphs 176-178. The dispute resolution process pursuant to Paragraphs 176-178 may be conducted concurrently with the process specified in Paragraph 163.

182. Notwithstanding Paragraph 181, if the matter has already been subject to dispute and resolution pursuant to Section VIII (Dispute Resolution) of the Compliance Agreement then no Party shall be required to engage in dispute resolution pursuant to Paragraphs 176-178 and a Party may seek resolution of a dispute by the Court without first engaging in dispute resolution pursuant to Paragraphs 176-178.

183. The Court shall decide all disputes pursuant to applicable principles of law for resolving such dispute. In their initial filings with the Court under Paragraph 178, the disputing Parties shall state their respective positions as to the applicable standard of law for resolving the particular dispute.

VII. INFORMATION COLLECTION AND RETENTION

184. Any authorized representative of Alabama, Kentucky, or Tennessee, including their attorneys, contractors, and consultants, upon presentation of credentials, shall have a right of entry upon the premises of any facility in the TVA System at any reasonable time for the purpose of:

a. monitoring the progress of activities required under this Consent Decree;

b. verifying any data or information submitted in accordance with the terms of this Consent Decree;

c. obtaining samples and, upon request, splits of any samples taken by TVA or its representatives, contractors, or consultants; and

d. assessing TVA's compliance with this Consent Decree.

185. TVA 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 and/or control, and that directly relate to TVA's performance of its obligations under this Consent Decree until six (6) years following completion of performance of such obligations. This record retention requirement shall apply regardless of any TVA document retention policy to the contrary.

186. All information and documents submitted by TVA 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) TVA claims and substantiates in accordance with relevant federal or state law that the information and documents contain confidential business information. The Citizen Plaintiffs shall appropriately protect all information that is either subject to legal privileges or protection or that TVA substantiates as confidential business information.

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

VIII. NOTICES

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

As to EPA:

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

or

(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

Director
Air, Pesticides and Toxics Management Division
U.S. EPA- Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-8960

As to Alabama:

Chief, Air Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, AL 36110-2059

As to Kentucky:

Director
Division for Air Quality
Energy and Environment Cabinet
200 Fair Oaks Lane
Frankfort, KY 40601

As to North Carolina:

Director
NCDENR, Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

Senior Deputy Attorney General
Environmental Division
North Carolina Department of Justice
P.O. Box 629 (114 W. Edenton Street, Room 306A)
Raleigh, NC 27602-0629

As to Tennessee:

Division Director/Technical Secretary
Tennessee Department of Environment & Conservation
Air Pollution Control Division
401 Church Street
L&C Annex, 9th Floor
Nashville, TN 37243-1548

As to the Citizen Plaintiffs:

George E. Hays
Attorney at Law
236 West Portal Avenue #110
San Francisco, CA 94127
Office: 415/566-5414 Fax: 415/731-1609
e-mail: georgehays@mindspring.com

William J. Moore, III
1648 Osceola Street
Jacksonville, FL 32204

(904) 685-2172 (phone)
(904) 685-2175 (fax)
wmoore@wjmlaw.net

As to TVA:

Vice President, Environmental Permitting and Compliance
Tennessee Valley Authority
1101 Market Street
Chattanooga, TN 37402

and

Assistant General Counsel, Environment
Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville, TN 37902

189. All notifications, communications or submissions made pursuant to this Section shall be sent either by (a) overnight mail or overnight delivery service, or (b) certified or registered mail, return receipt requested. In addition to the foregoing, notification may also be made through electronic mail. All notifications, communications, and transmissions that are properly addressed and prepaid and are (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.

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

IX. SALES OR TRANSFERS OF OPERATIONAL OR OWNERSHIP INTERESTS

191. If TVA proposes to sell or transfer an Operational or Ownership Interest to an entity unrelated to TVA ("Third Party"), TVA shall advise the Third Party in writing of the

existence of this Consent Decree prior to such sale or transfer, and shall send a copy of such written notification to EPA, the States, and the Citizen Plaintiffs pursuant to Section VIII (Notices) of this Consent Decree at least sixty (60) days before such proposed sale or transfer.

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

193. This Consent Decree shall not be construed to impede the transfer of any Operational or Ownership Interests between TVA and any Third Party so long as the requirements of this Consent Decree are met. This Consent Decree shall not be construed to prohibit a contractual allocation between TVA and any Third Party of the burdens of compliance with this Consent Decree, provided that TVA shall remain liable to the Plaintiffs for the obligations of the Consent Decree applicable to the transferred or purchased Operational or Ownership Interests.

194. If the Plaintiffs (in consultation with EPA) agree, the Plaintiffs, TVA, and the Third Party that has become a party to this Consent Decree pursuant to Paragraph 192, may execute a modification that relieves TVA of its liability under this Consent Decree for, and makes the Third Party liable for, all obligations and liabilities applicable to the purchased or transferred Operational or Ownership Interests. Notwithstanding the foregoing, however, no obligation under this Consent Decree may be assigned, transferred or released in connection with

any sale or transfer of any Ownership Interest that is not specific to the purchased or transferred Operational or Ownership Interests, including the obligations set forth in Sections III.F (Environmental Mitigation Projects) and III.G (Civil Penalty), and Paragraphs 67 and 82. TVA may propose and the Plaintiffs may agree to restrict the scope of the joint and several liability of any purchaser or transferee for any obligations of this Consent Decree that are not specific to the transferred or purchased Operational or Ownership Interests, to the extent such obligations may be adequately separated in an enforceable manner using the methods provided by or approved under Section III.L (Permits).

195. Paragraphs 191-194 of this Consent Decree do not apply if an Operational or 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 TVA (a) remains the operator (as that term is used and interpreted under the Act) of the subject TVA System Unit(s); (b) remains subject to and liable for all obligations and liabilities of this Consent Decree; and (c) supplies EPA with the following certification within thirty (30) days of the sale or transfer:

> Certification of Change in Ownership Interest Solely for Purpose of Consummating Financing. We, the Chief Executive Officer(s) and General Counsel(s) of the Tennessee Valley Authority ("TVA"), hereby jointly certify under Title 18 U.S.C. Section 1001, on our own behalf and on behalf of TVA, that any change in TVA'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 TVA 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 TVA's ability, legally or otherwise, to comply timely with all terms and provisions of the Consent Decree entered in Alabama *et al.* v. Tennessee Valley Auth., [insert case number] (E.D. Tenn. filed April 2011); (c) does not affect TVA's operational control of any Unit covered by that Consent Decree in a manner that is inconsistent with TVA's performance of its obligations under the Consent Decree; and (d) in no way affects the status of TVA's obligations or liabilities under that Consent Decree.

X. EFFECTIVE DATE

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

XI. RETENTION OF JURISDICTION

197. The Court shall retain jurisdiction of this case after the Date of Entry of this Consent Decree to enforce compliance with the terms and conditions of this Consent Decree and to take any action necessary or appropriate for 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.

XII. MODIFICATION

198. Except for a Party's request to modify this Consent Decree to conform to any modification to the Compliance Agreement, the terms of this Consent Decree may be modified only by a subsequent written agreement signed by the Parties. A Party shall provide notice to all other Parties (and to EPA) at least ten (10) business days before moving this Court to modify this Consent Decree to conform it to any modification of the Compliance Agreement. Except as otherwise specified herein, where the modification constitutes a material change to any term of this Consent Decree, it shall be effective only upon approval by the Court.

XIII. GENERAL PROVISIONS

199. At any time prior to conditional and/or partial termination of enforcement through this Consent Decree, TVA may request approval from EPA to implement a pollution control technology or pollution reduction activity for SO_2 or NO_x other than what is required by this Consent Decree. In seeking such approval, TVA must demonstrate that such alternative control

technology or activity is capable of achieving and maintaining pollution reductions equivalent to an FGD (for SO_2) or SCR (for NO_x) at the Units in the TVA System at which TVA seeks approval to implement such other control technology or activity for SO_2 or NO_x. Approval of such a request is solely at the discretion of EPA (in consultation with the States and the Citizen Plaintiffs) provided that TVA shall not implement (and the Compliance Agreement prohibits EPA from approving) an alternative control technology or activity if TVA fails to demonstrate that such alternative control technology or activity is capable of achieving and maintaining pollution reductions equivalent to an FGD (for SO_2) or SCR (for NO_x) at the Units in the TVA System. If EPA approves TVA's request, nothing in this Paragraph shall relieve TVA from complying with any other requirement of this Consent Decree applicable to such Unit (e.g., the requirement to obtain a federally enforceable non-Title V permit that includes the Unit-specific performance, operational, maintenance, and control technology requirements for such Unit in addition to the system-wide requirements and any plant-wide requirements also applicable to such Unit).

200. This Consent Decree is not a permit. Compliance with the terms of this Consent Decree does not guarantee compliance with any applicable federal, state, and/or local laws and/or regulations. The emission limitations set forth herein do not relieve TVA from any obligation to comply with other state and federal requirements under the Act, including TVA's obligation to satisfy any modeling requirements set forth in the Act.

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

202. In any subsequent action initiated by EPA, the States, or the Citizen Plaintiffs relating to the facilities covered by this Consent Decree, TVA 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 EPA and/or any of the States or the Citizen Plaintiffs in the subsequent proceeding were brought, or should have been brought, in the instant case; provided, however, that nothing in this Paragraph is intended to affect the validity of Section III.H (Resolution of Claims Against TVA).

203. Except as specifically provided by this Consent Decree, nothing in this Consent Decree shall relieve TVA of its obligation to comply with all applicable federal, state, and/or local laws and/or regulations, including, but not limited to, TVA's obligation to apply for a Clean Water Act NPDES permit(s) or permit renewal for the discharge of wastewater from the operation of the FGDs at any TVA System Unit, and in connection with any such application or application for permit renewal, to provide the NPDES permitting authority with all information necessary to appropriately characterize effluent from its operations and develop, if applicable, appropriate effluent limitations; provided, however, that no claimed violation of this provision regarding NPDES permitting shall be enforceable as a violation of this Consent Decree, by way of stipulated penalty or otherwise. Subject to the provisions in Section III.H (Resolution of Claims Against TVA), nothing contained in this Consent Decree shall be construed to prevent or limit the rights of EPA, the States, or the Citizen Plaintiffs to obtain penalties or injunctive relief under the Act or other federal, state, or local statutes, regulations, or permits.

204. Nothing in this Consent Decree is intended to, or shall, alter or waive any applicable law (including but not limited to any defenses, entitlements, challenges, or

clarifications related to the Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997)) concerning the use of data for any purpose under the Act.

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

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

207. Except as otherwise provided by law, this Consent Decree does not limit, enlarge or affect the rights of any Party to this Consent Decree as against any third parties.

208. 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.

XIV. SIGNATORIES AND SERVICE

209. Each undersigned representative of the Parties certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind to this document the Party he or she represents.

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

211. 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.

XV. PUBLIC COMMENT

212. The Parties agree and acknowledge that entry of this Consent Decree shall occur only after EPA has completed the public notice and comment process that is specified in Paragraph 211 of the Compliance Agreement. The Parties shall not oppose entry of this Consent Decree by this Court or challenge any provision of this Consent Decree unless EPA has notified TVA, the States, and the Citizen Plaintiffs in writing that due to the substance of comments received during the notice and comment period specified in Paragraph 211 of the Compliance Agreement, EPA no longer consents to the Compliance Agreement as originally executed by EPA and TVA. The Parties reserve the right to seek, prior to entry, modifications to this Consent Decree consistent with any modifications that EPA and TVA make to the Compliance Agreement pursuant to Paragraph 211 of the Compliance Agreement.

XVI. CONDITIONAL TERMINATION OF ENFORCEMENT UNDER DECREE

213. Termination as to Completed Tasks at a Unit. As soon as TVA completes a requirement of this Consent Decree pertaining to a particular Unit that is not ongoing or recurring, TVA may, by written letter to the States and the Citizen Plaintiffs, seek termination of the provision or provisions of this Consent Decree that imposed the requirement.

214. Conditional Termination of Enforcement Through the Consent Decree. After TVA:

a. has successfully completed construction of all pollution control technology or such other Control Requirement described in Paragraphs 69 and 85, and has maintained Continuous Operation of all pollution control technology or such other Control Requirement at the TVA System Units as required by this Consent Decree for at least two (2) years; and

b. has obtained final permits and/or site-specific SIP amendments (i) as required by Section III.L (Permits) of this Consent Decree, (ii) that cover all Units in this Consent Decree, and (iii) that include as enforceable permit terms all of the Unit-specific and TVA System performance, operational, maintenance, and control technology requirements specified in this Consent Decree;

then TVA may so certify these facts to the States and the Citizen Plaintiffs. If the States and the Citizen Plaintiffs (in consultation with EPA) do not object in writing with specific reasons within forty-five (45) days of receipt of TVA's certification, then, for any Consent Decree violations that occur after the certification is submitted, the States and the Citizen Plaintiffs shall pursue enforcement through the applicable permit(s) required pursuant to Paragraphs 50, 150, 154, 155, 156, and 158 and/or other enforcement authority, and not through this Consent Decree.

215. Resort to Enforcement under this Consent Decree. Notwithstanding Paragraph 214, if enforcement of a provision in this Consent Decree cannot be pursued by the States and the Citizen Plaintiffs under the applicable permits required by this Consent Decree or other enforcement authority, or if a Consent Decree requirement was intended to be part of a permit and did not become or remain part of such permit, then such requirement may be enforced under the terms of this Consent Decree at any time.

XVI. FINAL JUDGMENT

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

IT IS SO ORDERED.

_____

UNITED STATES DISTRICT COURT JUDGE

Signature Page for Consent Decree in:

Alabama et al.
v.
Tennessee Valley Auth.

FOR THE STATE OF ALABAMA AND THE ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT:

LANCE R. LEFLEUR, Director
Alabama Department of
Environmental Management
1400 Coliseum Boulevard
Montgomery, AL 36130-1463

LUTHER STRANGE, Attorney General

By:_____
S. SHAWN SIBLEY (ASB-2802-Y49S)
Assistant Attorney General and
Associate General Counsel
Alabama Department of
Environmental Management
1400 Coliseum Boulevard
Montgomery, AL 36130-1463

Signature Page for Consent Decree in:

Alabama et al.
v.
Tennessee Valley Auth.

FOR THE COMMONWEALTH OF KENTUCKY:

DR. LEONARD K. PETERS, Secretary
Energy and Environment Cabinet
500 Mero Street
12th Floor, Capital Plaza Tower
Frankfort, Kentucky 40601

C. MICHAEL HAINES, General Counsel
Energy and Environment Cabinet
Office of General Counsel
2 Hudson Hollow Road
Frankfort, Kentucky 40601

Signature Page for Consent Decree in:

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FOR THE STATE OF NORTH CAROLINA:

ROY COOPER
Attorney General
North Carolina Department of Justice
P.O. Box 629
114 West Edenton Street
Raleigh, NC 27602
(919) 716-6400
Fax: (919) 716-0803

Signature Page for Consent Decree in:

Alabama et al.
v.
Tennessee Valley Auth.

FOR THE STATE OF TENNESSEE:

ROBERT E. COOPER, JR.
Attorney General & Reporter

By: _____

PHILLIP R. HILLIARD
Senior Counsel
Office of the Tennessee Attorney
General & Reporter
Environmental Division
P.O. Box 20207
425 Fifth Avenue North
Nashville, TN 37202
(615) 741-4612
Fax: (615) 741-8724
Phillip.Hilliard@ag.tn.gov
Tenn. BPR No. 21524

Signature Page for Consent Decree in:

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FOR NATIONAL PARKS CONSERVATION ASSOCIATION, INC.:

ELIZABETH FAYAD
General Counsel

Signature Page for Consent Decree in:

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Tennessee Valley Auth.

FOR SIERRA CLUB:

BRUCE E. NILLES
Deputy Conservation Director

Signature Page for Consent Decree in:

Alabama et al.
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Tennessee Valley Auth.

FOR OUR CHILDREN'S EARTH FOUNDATION:

TIFFANY SCHAUER
Executive Director

Signature Page for Consent Decree in:

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v.
Tennessee Valley Auth.

FOR THE TENNESSEE VALLEY AUTHORITY:

Tom Kilgore

TOM KILGORE
President and Chief Executive Officer
Tennessee Valley Authority

APPENDIX A

REPORTING REQUIREMENTS

I. Annual Reporting Requirements

Beginning six (6) months after the Consent Decree Obligation Date, and continuing annually on April 30 each year thereafter, TVA shall submit annual reports to EPA, the States, and the Citizen Plaintiffs electronically as required by Section III.I (Periodic Reporting). EPA, the States, and the Citizen Plaintiffs reserve the right to request such information in hard copy. In such annual reports, TVA shall include the following information:

A. System-Wide Annual Tonnage Limitations for NO_x and SO_2

TVA shall report the following information: (1) the total actual annual tons of the pollutant emitted from each Unit or, for Units sharing a common stack, the total actual annual tons of the pollutant emitted from each combined stack, within the TVA System and any New CC/CT Units during the prior calendar year; (2) the total actual annual tons of the pollutant emitted from the TVA System and any New CC/CT Units during the prior calendar year; (3) the difference, if any, between the System-Wide Annual Tonnage Limitation for the pollutant in that calendar year and the amount reported in subparagraph (2); and (4) for each pollutant, (a) the annual average emission rate, expressed as lb/mmBTU, for each Unit within the TVA System and any New CC/CT Units in the prior calendar year and (b) the annual average emission rate, expressed as lb/mmBTU, for the entire TVA System and any New CC/CT Units during the prior calendar year. Data submitted pursuant to this subsection shall be based upon CEMS pursuant to Paragraphs 81 and 97.

If TVA was subject to an adjusted System-Wide Annual Tonnage Limitation specified in Paragraphs 68 and 83 in the calendar year covered by the annual report, it shall report the following: (1) the Units at which the adjusted System-Wide Annual Tonnage Limitations in Paragraphs 68 and 83 apply and (2) the adjusted aggregate System-Wide Annual Tonnage Limitation.

B. Continuous Operation of Pollution Control Technology or Combustion Controls

TVA shall report the date that it commenced Continuous Operation of each SCR, FGD, PM Control Device, SNCR, LNB, OFA, and SOFA that TVA is required to Continuously Operate pursuant to this Consent Decree in the calendar year covered by the annual report.

TVA shall report, for any SCR, FGD, PM Control Device, SNCR, LNB, OFA, and SOFA that TVA is required to Continuously Operate during the calendar year covered by the annual report, the duration of any period during which that pollution

control technology or combustion control did not Continuously Operate, including the specific dates and times that such pollution control technology or combustion control did not operate, the reason why TVA did not Continuously Operate such pollution control technology or combustion control, and the measures taken to reduce emissions of the pollutant controlled by such pollution control technology or combustion control.

TVA shall include a statement in each annual report describing the actions it took to optimize the PM Control Devices as required by Paragraph 98 in the relevant calendar year.

C. Installation of NO_x, SO_2, and PM Control Devices

TVA shall report on the progress of construction (including upgrades) of SCRs and FGDs (and new PM Control Devices, if any) required by this Consent Decree including: (1) if construction is not underway, any available information concerning the construction schedule, including the dates of any major contracts executed during the prior calendar year, and any major components delivered during the prior calendar year; (2) if construction is underway, the estimated percent of installation as of the end of the prior calendar year, the current estimated construction completion date, and a brief description of completion of significant milestones during the prior calendar year, including a narrative description of the current construction status (e.g. foundations completed, absorber installation proceeding, all material on-site, new stack erection completed, etc.); (3) a list of all permits needed to construct and operate the device, the date TVA applied for such permits, and the status of the permit applications; and (4) once construction is complete, the dates the equipment was placed in service and any performance/emissions testing that was performed during the prior calendar year. For purposes of the FGD upgrade at Paradise Units 1 and 2, TVA shall demonstrate, with supporting documentation, that the construction activities performed to upgrade the FGDs at Paradise Units 1 and 2 were designed to upgrade the FGDs to a 93% removal efficiency.

D. Unit Retirements

Beginning on April 30 of the year following TVA's obligation pursuant to this Consent Decree to Retire a TVA System Unit, and continuing annually thereafter until all TVA System Units required to be Retired have been Retired, TVA shall report the date it Retired such Unit and a description of the actions TVA took to Retire such Unit within the meaning of Paragraph 51.

E. Repower to Renewable Biomass

If TVA elects the Repower to Renewable Biomass option for a TVA System Unit, in the next annual report following such election, and continuing annually thereafter, TVA shall report on the progress of its efforts to Repower such TVA System Unit including: (1) if construction is not underway, any available information concerning the construction schedule, including the dates of any major contracts executed during the

prior calendar year, and any major components delivered during the prior calendar year; (2) if construction is underway, the estimated percent of installation as of the end of the prior calendar year, the current estimated construction completion date, and a brief description of completion of significant milestones during the prior calendar year, including a narrative description of the current construction status; (3) a list of all permits needed to construct and operate the Repowered Unit, the date TVA applies for such permits, and the status of the permit applications; and (4) once construction is complete, the dates the Repowered Unit was placed in service and any performance/emissions testing that was performed during the prior calendar year.

F. PM Emission Control Optimization Study

Beginning on April 30 of the year following TVA's obligation to implement the EPA-approved recommendations required by Paragraph 99, TVA shall include a statement describing how it maintained each PM Control Device in accordance with the EPA-approved PM emission control optimization study.

G. Reporting Requirements for NO_x and SO_2 Allowances

1. Reporting Requirements for NO_x and SO_2 Surrendered Allowances

TVA shall report the number of NO_x and SO_2 Allowances that were allocated to it under any programs and the number of NO_x and SO_2 Allowances surrendered pursuant to Paragraphs 75 and 91 for the prior calendar year. TVA shall include the mathematical basis supporting its calculation of NO_x and SO_2 Allowances surrendered.

2. Reporting Requirements for NO_x and SO_2 Super-Compliance Allowances

TVA shall report any Super-Compliance NO_x or SO_2 Allowances that it generated as provided in Paragraphs 78 and 94 for the prior calendar year. TVA shall include the mathematical basis supporting its calculation of Super-Compliance NO_x or SO_2 Allowances. TVA shall also specifically identify the amount, if any, of Super-Compliance NO_x and SO_2 Allowances that TVA generated from Retiring a TVA System Unit that TVA did not utilize for purposes of Paragraph 117 (New CC/CT Units).

H. New CC/CT Units

TVA shall report all information necessary to determine compliance with Paragraphs 117-119. In particular, TVA shall report whether it has applied for a minor NSR permit as described in Subparagraph 117.b and 119.c to construct a New CC/CT Unit, and shall confirm that it timely provided a copy of the permit application to EPA, the States, and the Citizen Plaintiffs as required by Subparagraph 117.c and Paragraph 155. TVA shall report the amount of emission reductions of NO_x and the amount of emission reductions of SO_2 resulting from Retiring a TVA System Unit that TVA utilized as netting credits as provided in Paragraph 117. TVA shall report the amount of emission

reductions of Greenhouse Gases resulting from Retiring a TVA System Unit that TVA utilized as netting credits as provided in Paragraph 119. TVA shall describe how the emissions decreases on which it is relying in order to construct a New CC/CT Unit as provided in Paragraph 117 and 119 are both contemporaneous and otherwise creditable within the meaning of the Clean Air Act and the applicable SIP. In making these demonstrations, TVA shall provide unit-by-unit explanations and calculations. TVA shall include a description of the emission limitations determined by the relevant permitting authority as described in Subparagraph 117.b, and how such emission limitations are consistent with this Consent Decree and Appendix B. TVA shall provide all relevant information, including an appropriate mathematical calculation, to demonstrate that any emission decrease upon which it relied for purposes of Paragraph 117 was not used to generate a Super-Compliance NO_x or SO_2 Allowance in the calendar year in which TVA relies upon such emission reduction and all calendar years thereafter. TVA shall provide all information necessary to determine compliance with the conditions established in Paragraphs 119.b-119.c.

I. NO_x, SO_2, and PM CEMS Malfunction, Repair, or Maintenance

TVA shall report all periods when a CEMS required by this Consent Decree was not operating, including periods of monitor malfunction, repair, or maintenance in the prior calendar year.

J. PM CEMS Data

In an electronic, spreadsheet format, TVA shall submit the data recorded by the PM CEMS, expressed in lb/mmBTU, on a three-hour (3-hour) rolling average basis and a twenty-four-hour (24-hour) rolling average basis, and shall include identification of each 3-hour average and 24-hour average above the 0.030 lb/mmBTU PM Emission Rate for Bull Run Unit 1, Colbert Unit 5, and Kingston Units 1-9, for the prior calendar year. If TVA locates a PM CEMS at another Unit in the TVA System pursuant to Paragraph 110, and such Unit is also subject to a PM Emission Rate pursuant to Paragraph 100, TVA shall also include identification of each 3-hour average exceededance for such Unit.

K. SO_2 Emission Rate at Shawnee

TVA shall submit all data necessary to determine whether emissions of SO_2 from Shawnee Units 1-10 exceeded 1.2 lb/mmBTU in the prior calendar year.

L. PM Stack Tests & PM Emission Rates

TVA shall submit the complete report for the stack tests performed pursuant to Paragraphs 101 and 102 in the prior calendar year. TVA shall describe at which TVA System Units, if any, TVA did not perform a stack test in the relevant calendar year. TVA shall separately identify the stack test reports for the TVA System Units subject to a PM Emission Rate under this Consent Decree.

M. Environmental Mitigation Projects

TVA shall report funds disbursed to the States pursuant to Paragraphs 122-124 and 126 of the Consent Decree in the prior calendar year.

N. Other Unit at Shawnee Becomes Improved Unit

If TVA decides to make an Other Unit at the Shawnee Plant an Improved Unit, TVA shall so state in the next annual report it submits after making such decision, and shall comply with the reporting requirements specified in Section I.C of this Appendix and any other reporting or notice requirements in accordance with the Consent Decree.

O. Emission Reductions Greater than those Required Under this Consent Decree

TVA shall report whether, in the relevant calendar year, it claimed to have achieved emission reductions at a particular TVA System Unit that are greater than those emission reductions required under this Consent Decree for the particular TVA System Unit as provided in Paragraph 116. If TVA did not claim to have achieved emission reductions at a particular TVA System Unit that are greater than those emission reductions required under this Consent Decree, it shall so state. If TVA did, for any purpose, claim to achieve emission reductions at a particular TVA System Unit that are greater than those required under this Consent Decree for that particular TVA System Unit, TVA shall include a description of how it achieved such emission reductions, including a mathematical calculation in support of the claimed emission reductions, an explanation of how such emission reductions are greater than those required under this Consent Decree, and the manner in which such emission reductions were either relied upon or used for purposes of permitting actions, non-permitting actions, or otherwise.

II. Deviation Reports

TVA shall report all deviations from the requirements of the Consent Decree that occur during the calendar year covered by the annual report, identifying the date and time that the deviation occurred, the date and time the deviation was corrected, the cause of any corrective actions taken for each deviation, if necessary, and the date that the deviation was initially reported under Paragraph 156.

III. Submission Pending Review

In each annual report, TVA shall include a list of all plans or submissions made pursuant to this Consent Decree during the calendar year covered by the annual report and all prior calendar years since the Consent Decree Obligation Date, the date(s) such plans or submissions were submitted to EPA for review or approval, and shall identify which, if any, are still pending review and approval by EPA upon the date of the submission of the annual report.

IV. Other Information Necessary to Determine Compliance

To the extent that information not expressly identified herein is necessary to determine TVA's compliance with the requirements of this Consent Decree for the calendar year covered by the annual report, and such information has not otherwise been submitted, TVA shall provide such information as part of the annual report required pursuant to Section III.I (Periodic Reporting) of the Consent Decree and TVA shall provide such other information that is deemed necessary by EPA in consultation with the States.

V. Information Previously Submitted under Title V Permitting Requirements

In any periodic progress report submitted pursuant to Section III.I (Periodic Reporting) of the Consent Decree and this Appendix, TVA may incorporate by reference information previously submitted under its Title IV or Title V permitting requirements, provided that TVA attaches the Title IV and/or Title V permit report, or the relevant portion thereof, and provides a specific reference to the provisions of the Title IV and/or Title V permit report that are responsive to the information required in the periodic progress report.

APPENDIX B

EMISSION LIMITATIONS FOR NEW CC/CT UNITS

This Appendix B sets forth emission limitations for certain regulated NSR pollutants for the purpose of constructing New CC/CT Units pursuant to Paragraph 117 of the Consent Decree. The emission limitations set forth in this Appendix serve solely as the minimum stringency for emission limitations to be determined by the relevant permitting authority for such New CC/CT Units as described in Paragraph 117, and shall not be presumed to be BACT or LAER. Although the permitting authority as part of the permitting action described in Paragraph 117 of the Consent Decree shall not determine BACT or LAER to be less stringent than the emission limitations set forth herein, nothing in the Consent Decree or this Appendix shall prevent the permitting authority from establishing more stringent emission limitations than those set forth in this Appendix. For purposes of the permitting action described in Paragraph 117 of the Consent Decree, TVA shall not assert that the Consent Decree (including this Appendix) supports imposing a BACT or LAER emission limitation that is no more stringent than the emission limitations set forth herein.

The permitting authority will determine BACT and LAER, as appropriate, for NO_x, SO_2, VOC, PM, PM_{10}, and $PM_{2.5}$ for all periods of operation, including startup, shutdown, combustion tuning, and fuel switching as part of the minor NSR permitting action described in Paragraph 117. The emission limitations only for NO_x and VOC described in this Appendix do not apply during startup, shutdown, combustion tuning, and fuel switching. For purposes of startup and shutdown, the permitting authority will consider appropriate technologies, methodologies, and other practices to reduce or minimize emissions during such events (such as the use of an auxiliary boiler to preheat the catalyst, the use of Rapid Start Process, and by limiting the number and duration of startups and shutdowns, among other things) as part of the BACT/LAER analysis. In addition to any other limitations determined by the permitting authority, combustion tuning shall be limited to no more than four (4) hours per event and the total event hours in a calendar year shall not exceed twenty (20) hours. The permitting authority shall require TVA to include advance notice of the details of such combustion tuning event and the proposed tuning schedule. An event, for purposes of the 4-hour event limit, shall begin to run when TVA first commences the combustion tuning process at a unit and shall conclude once TVA has completed all tuning-related activities and returns the unit to normal operation. For purposes of this Appendix, and in addition to any other limitations determined by the permitting authority, the type of fuel switching for which the NO_x and VOC emission limitations described in this Appendix do not apply shall be for oil-to-gas switching not to exceed thirty (30) minutes per each oil-to-gas fuel switch and gas-to-oil switching not to exceed fifteen (15) minutes per each gas-to-oil fuel switch.

The New CC/CT Units constructed pursuant to Paragraph 117 of the Consent Decree shall combust Natural Gas as the primary fuel, which shall contain no more than one (1) grain sulfur per one hundred (100) standard cubic feet ("Gr S/100 SCF"). Ultra-Low Sulfur Diesel ("ULSD") Fuel Oil containing no more than 0.0015% sulfur by weight may be used as an alternate fuel, provided that the use of such fuel is limited to no more than five hundred (500)

hours during any calendar year or one hundred (100) hours during any calendar year, as specified in the Tables below. Units subject to an ULSD Fuel Oil operational limitation of 100 hours during any calendar year shall only combust ULSD Fuel Oil for either Testing or during periods of Natural Gas Curtailment. For purposes of this Appendix, the term "Testing" shall mean the infrequent start-up of a unit not for purposes of generating electricity but to ensure that the unit is physically capable of operating. For purposes of this Appendix, the term "Natural Gas Curtailment" shall mean a restriction or limitation imposed by a third-party beyond TVA's control on TVA's ability to obtain or use Natural Gas. If TVA Retires one or more of the Units at the Allen Fossil Plant identified in Paragraph 63 of the Consent Decree and seeks to construct a New CC/CT Unit co-located at the Allen Fossil Plant pursuant to Paragraph 117 of the Consent Decree, then, in addition to Natural Gas and ULSD Fuel Oil, TVA may also request that the permitting authority authorize it to co-fire biogas from the Memphis Public Works waste treatment plant at such New CC/CT Units, which is the same biogas that TVA co-fires at the Allen Fossil Plant as of the Consent Decree Obligation Date of this Consent Decree.

The Tables in this Appendix do not contain emission limitations for filterable or condensable PM_{10} or condensable $PM_{2.5}$. The permitting authority will determine BACT and LAER, as appropriate, for all fractions of PM that are regulated NSR pollutants as of the time of the permitting action, including filterable and condensable PM_{10} and filterable and condensable $PM_{2.5,}$ as part of the permitting process required pursuant to Paragraph 117 of the Consent Decree.

The NO_x emission limitations in Sections B, C, and D do not require the installation of selective catalytic reduction (SCR) technology. However, the Parties recognize that SCR is technically feasible for CT units.

Tables A.1 and A.2 set forth the minimum stringency emission limitations for New CC Units. Tables B.1, B.2, C.1, C.2, D.1, and D.2 set forth the minimum stringency emission limitations for New CT Units. As set forth in Tables B.1 and C.1, New CT Units located in an attainment area shall either be subject to an overall hours of operation limitation of no more than thirteen hundred (1,300) hours in a rolling twelve-month (12-month) period or have no overall hours of operation limitation. As set forth in Tables A.2, B.2, C.2, and D.2, all New CC/CT Units (whether in attainment or nonattainment areas) will have a limitation on the use of ULSD.

A. Emission Limitations for New CC Units

As part of the minor NSR permitting action described in Paragraph 117 of the Consent Decree, the permitting authority shall establish emission limitations that are no less stringent than those set forth in Table A.1 for New CC Units firing Natural Gas and Table A.2 for New CC Units firing ULSD Fuel Oil. Additionally, as part of the minor NSR permitting action described in Paragraph 117 of the Consent Decree, the permitting authority shall impose a condition that limits the New CC Units to firing no more than 500 hours of ULSD Fuel Oil in a calendar year.

Table A.1 – Emission Limitations for Natural Gas-fired operation

Pollutant	**Emission Rate**	**Averaging Period**	**Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process**
NO_x	2.0 parts per million (ppm) at 15% O_2	8-hour rolling average	Startup, shutdown, combustion tuning, fuel switching
SO_2	1 Gr S/100 SCF	12-month rolling average	All periods of operation are subject to the emission limitation set forth in this Table (hereinafter referred to as "NA")
Filterable $PM_{2.5}$	0.005 lb/mmBTU	Average of three 1-hour runs from stack test in accordance with reference method	NA
VOC	1.5 ppm at 15% O_2 without duct firing 2.0 ppm at 15% O_2 with duct firing	Average of three 1-hour runs from stack test in accordance with reference method	Startup, shutdown, combustion tuning, fuel switching

Table A.2 – Emission Limitations for ULSD Fuel Oil-fired operation (not to exceed 500 hours during any calendar year)

Pollutant	**Emission Rate**	**Averaging Period**	**Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process**
NO_x	8.0 ppm at 15% O_2	8-hour rolling average	Startup, shutdown, combustion tuning, fuel switching
SO_2	15 ppm S	NA	NA
Filterable $PM_{2.5}$	0.015 lb/mmBTU	Average of three 1-hour runs from stack test in accordance with reference method	NA
VOC	4.0 ppm at 15% O_2	Average of three 1-hour runs from stack test in accordance with reference method	Startup, shutdown, combustion tuning, fuel switching

B. Emission Limitations for New CT Units Located in Attainment Areas Subject to an Operational Limitation of 1,300 Hours in a 12-Month Period

As part of the minor NSR permitting action described in Paragraph 117 of the Consent Decree, the permitting authority shall establish emission limitations that are no less stringent than those set forth in: (i) Table B.1 for New CT Units firing Natural Gas if they are located in an attainment area and are subject to an overall hours of operation limitation of no more than 1,300 hours in a rolling 12-month period and (ii) Table B.2 for New CT Units firing ULSD Fuel Oil if they are located in an attainment area and are subject to an overall hours of operation limitation of no more than 1,300 hours in a rolling 12-month period, and which must be subject to an operational limitation for ULSD Fuel Oil that limits the New CT Units to firing no more than 500 hours of ULSD Fuel Oil in a calendar year.

Table B.1 – Emission Limitations for Natural Gas-fired Operation

Pollutant	**Emission Rate**	**Averaging Period**	**Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process**
NO_x	9.0 ppm at 15% O_2	8-hour rolling average	Startup, shutdown, combustion tuning, fuel switching
SO_2	1 Gr S/100 SCF	12-month rolling average	NA
Filterable $PM_{2.5}$	0.005 lb/mmBTU	Average of three 1-hour runs from stack test in accordance with reference method	NA
VOC	3.0 ppm at 15% O_2	Average of three 1-hour runs from stack test in accordance with reference method	Startup, shutdown, combustion tuning, fuel switching

Table B.2 – Emission Limitations for ULSD Fuel Oil-fired Operation (not to exceed 500 hours during any calendar year)

Pollutant	**Emission Rate**	**Averaging Period**	**Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process**
NO_x	42 ppm at 15% O_2	8-hour rolling average	Startup, shutdown, combustion tuning, fuel switching
SO_2	15 ppm S	NA	NA
Filterable	0.015 lb/mmBTU	Average of three 1-	NA

Pollutant	Emission Rate	Averaging Period	Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process
$PM_{2.5}$		hour runs from stack test in accordance with reference method	
VOC	5.0 ppm at 15% O_2	Average of three 1-hour runs from stack test in accordance with reference method	Startup, shutdown, combustion tuning, fuel switching

C. Emission Limitations for New CT Units Located in Attainment Areas with No Hours of Operation Limit

As part of the minor NSR permitting action described in Paragraph 117 of the Consent Decree, the permitting authority shall establish emission limitations that are no less stringent than those set forth in: (i) Table C.1 for New CT Units firing Natural Gas if they are located in an attainment area and are not subject to an overall hours of operation limitation of no more than 1,300 hours in a rolling 12-month period and (ii) Table C.2 for New CT Units firing ULSD Fuel Oil if they are located in an attainment area and are not subject to an overall hours of operation limitation of no more than 1,300 hours in a rolling 12-month period, and which must be subject to an operational limitation for ULSD Fuel Oil that limits the New CT Units to firing no more than 100 hours of ULSD Fuel Oil in a calendar year, and further limiting the use of ULSD Fuel Oil at such New CT Units for purposes of Testing or during periods of Natural Gas Curtailment only. If the permitting authority, as part of the minor NSR permitting action for a New CT Unit firing ULSD Fuel Oil to be located in an attainment area with no overall hours of operation limitation, requires TVA to install and operate an SCR and achieve a NO_x emission rate of no greater than 6.0 ppm at 15% O_2 over an eight-hour (8-hour) rolling average rather than 42 ppm at 15% O_2 over an 8-hour rolling average as specified in Table C.2 below, then the 500 hour calendar year operational limitation described in Section B shall apply instead of the 100 hour calendar year operational limitation specified in this Section C.

Table C.1 – Emission Limitations for Natural Gas-fired Operation

Pollutant	Emission Rate	Averaging Period	Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process
NO_x	5.0 ppm at 15% O_2	8-hour rolling average	Startup, shutdown, combustion tuning, fuel switching
SO_2	1 Gr S/100 SCF	12-month rolling average	NA

Pollutant	Emission Rate	Averaging Period	Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process
Filterable $PM_{2.5}$	0.005 lb/mmBTU	Average of three 1-hour runs from stack test in accordance with reference method	NA
VOC	1.5 ppm at 15% O_2	Average of three 1-hour runs from stack test in accordance with reference method	Startup, shutdown, combustion tuning, fuel switching

Table C.2 – Emission Limitations for ULSD Fuel Oil-fired Operation (not to exceed 100 hours during any calendar year, and only for either Testing or Natural Gas Curtailment)

Pollutant	Emission Rate	Averaging Period	Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process
NO_x	42 ppm at 15% O_2	8-hour rolling average	Startup, shutdown, combustion tuning, fuel switching
SO_2	15 ppm S	NA	NA
Filterable $PM_{2.5}$	0.015 lb/mmBTU	Average of three 1-hour runs from stack test in accordance with reference method	NA
VOC	4.0 ppm at 15% O_2	Average of three 1-hour runs from stack test in accordance with reference method	Startup, shutdown, combustion tuning, fuel switching

D. Emission Limitations for New CT Units Located In Nonattainment Areas With or Without an Hours of Operation Limit

As part of the minor NSR permitting action described in Paragraph 117 of the Consent Decree, the permitting authority shall establish emission limitations that are no less stringent than those set forth in: (i) Table D.1 for New CT Units firing Natural Gas if they are located in a nonattainment area and (ii) Table D.2 for New CT Units firing ULSD Fuel Oil if they are located in a nonattainment area and which must be subject to an operational limitation for ULSD Fuel Oil that limits the New CT Units to firing no more than 100 hours of ULSD Fuel Oil in a calendar year, and further limiting the use of ULSD Fuel Oil at such New CT Units for purposes of Testing or during periods of Natural Gas Curtailment only. If the permitting authority, as part

of the minor NSR permitting action for a New CT Unit firing ULSD Fuel Oil to be located in a nonattainment area, requires TVA to install and operate an SCR and achieve a NO_x emission rate of no greater than 6.0 ppm at 15% O_2 over an 8-hour rolling average rather than 42 ppm at 15% O_2 over an 8-hour rolling average as specified in Table D.2 below, then the 500 hour calendar year operational limitation described in Section B shall apply instead of the 100 hour calendar year operational limitation specified in this Section D.

Table D.1 – Emission Limitations for Natural Gas-fired Operation

Pollutant	**Emission Rate**	**Averaging Period**	**Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process**
NO_x	5.0 ppm at 15% O_2	8-hour rolling average	Startup, shutdown, combustion tuning, fuel switching
SO_2	1 Gr S/100 SCF	12-month rolling average	NA
Filterable $PM_{2.5}$	0.005 lb/mmBTU	Average of three 1-hour runs from stack test in accordance with reference method	NA
VOC	1.5 ppm at 15% O_2	Average of three 1-hour runs from stack test in accordance with reference method	Startup, shutdown, combustion tuning, fuel switching

Table D.2 – Emission Limitations for ULSD Fuel Oil-fired Operation (not to exceed 100 hours during any calendar year, and only for either Testing or Natural Gas Curtailment)

Pollutant	**Emission Rate**	**Averaging Period**	**Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process**
NO_x	42 ppm at 15% O_2	8-hour rolling average	Startup, shutdown, combustion tuning, fuel switching
SO_2	15 ppm S	NA	NA
Filterable $PM_{2.5}$	0.015 lb/mmBTU	Average of three 1-hour runs from stack test in accordance with reference method	NA

Pollutant	Emission Rate	Averaging Period	Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process
VOC	4.0 ppm at 15% O_2	Average of three 1-hour runs from stack test in accordance with reference method	Startup, shutdown, combustion tuning, fuel switching

Exhibit 1 to: Consent Decree, Alabama *et al*. v. Tennessee Valley Auth., Nos. 3:11-cv-00170 and 171 (consolidated) (E.D. Tenn. filed April 14, 2011)

Federal Facilities Compliance Agreement Between the United States Environmental Protection Agency and the Tennessee Valley Authority, Docket No. CAA-04-2010-1760

(NOTE: The Federal Facilities Compliance Agreement lists the Consent Decree as an attachment to the Federal Facilities Compliance Agreement. In order to avoid unnecessary duplication, the Consent Decree is not included as an attachment to this copy of Federal Facilities Compliance Agreement.)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:	)	
	)	
	)	
TENNESSEE VALLEY AUTHORITY	)	Federal Facilities Compliance Agreement
	)	Between the United States Environmental
400 West Summit Hill Drive	)	Protection Agency and the Tennessee
Knoxville, Tennessee 37902	)	Valley Authority
	)	
Allen, Bull Run, Colbert,	)	
Cumberland, Gallatin, Johnsonville,	)	Docket No. CAA-04-2010-1760
John Sevier, Kingston, Paradise,	)	
Shawnee, and Widows Creek	)	
Fossil Plants	)	
	)	
	)	

FEDERAL FACILITIES COMPLIANCE AGREEMENT

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APPENDIX C – ENVIRONMENTAL MITIGATION PROJECTS

EXHBIT 1 – CONSENT DECREE

WHEREAS, the United States Environmental Protection Agency ("EPA") issued an administrative compliance order to the Tennessee Valley Authority ("TVA") pursuant to Sections 113 and 167 of the Clean Air Act ("Act"), 42 U.S.C. §§ 7413, 7477, alleging that TVA violated, inter alia, the Prevention of Significant Deterioration ("PSD") and Nonattainment New Source Review ("Nonattainment NSR") programs of the Act, its implementing regulations, and the federally approved and enforceable State Implementation Plans ("SIPs") for Alabama, Kentucky, and Tennessee at several of the coal-fired electric generating units that TVA owns and operates when it made certain physical changes without obtaining the necessary permits and installing the controls necessary to reduce emissions of oxides of nitrogen (NO_x), sulfur dioxide (SO_2), and particulate matter ("PM");

WHEREAS, in the administrative compliance order, issued on November 3, 1999, and subsequently amended several times, including on April 10, 2000, EPA directed TVA to come into compliance with the Clean Air Act;

WHEREAS, the United States Environmental Appeals Board ("EAB") issued a Final Order on Reconsideration in In re Tennessee Valley Auth., 9 E.A.D 357 (EAB 2000), in which it found that TVA had violated the PSD and Nonattainment NSR programs of the Act, its implementing regulations, and the relevant SIPs, and directed TVA to come into compliance with the Act;

WHEREAS, TVA petitioned for review of the administrative compliance order and the EAB's Final Order on Reconsideration in the United States Court of Appeals for the Eleventh Circuit, which concluded that EPA's administrative proceedings, and the Act provisions under

which the order was issued, violated due process, Tennessee Valley Auth. v. Whitman, 336 F.3d 1236, 1244, 1260 (11th Cir. 2003), cert. denied, 541 U.S. 1030 (2004); Brief for Respondent in Opposition to a Writ of Certiorari ("Brief for Respondent") at 4, National Parks Conservation Ass'n et al. v. Tennessee Valley Auth., 554 U.S. 917 (2008) (No. 07-867), and which then held that the unconstitutionality of the Act provision meant that EPA's order was not a "final agency action" and that the court of appeals therefore lacked jurisdiction to review it, see Brief for Respondent at 4 (citing Whitman, 336 F.3d at 1248, 1260);

WHEREAS, through this Federal Facilities Compliance Agreement ("Compliance Agreement") and the Consent Agreement and Final Order executed by EPA and TVA pursuant to 40 C.F.R §§ 22.13(b) and 22.18(b)(2), forwarded to the Region 4 Regional Judicial Officer for ratification, In re Tennessee Valley Auth., Docket No. CAA-04-2010-1528(b), EPA and TVA are resolving the violations alleged in the amended administrative compliance order and the Final Order on Reconsideration;

WHEREAS, the States of Alabama, North Carolina, and Tennessee and the Commonwealth of Kentucky (collectively "the States"), are concurrently filing a complaint and lodging a proposed Consent Decree in the Eastern District of Tennessee (Exhibit 1 to this Compliance Agreement), that, when entered, will secure by way of injunction the same relief as this Compliance Agreement and that, therefore, TVA's operations will be governed by both this Compliance Agreement and the Consent Decree;

WHEREAS, National Parks Conservation Association, Sierra Club, and Our Children's Earth Foundation (collectively the "Citizen Plaintiffs") are concurrently filing a complaint and

lodging a Consent Decree in the Eastern District of Tennessee with the States, that secures the same injunctive relief as this Compliance Agreement;

WHEREAS, in their complaints, the States and Citizen Plaintiffs allege, inter alia, that TVA made major modifications to major emitting facilities, and failed to obtain the necessary permits and install the controls necessary under the Act to reduce NO_x, SO_2, and/or PM emissions, and further allege that such emissions damage human health and the environment;

WHEREAS, EPA and TVA agree that this Compliance Agreement has been negotiated and executed by the Parties in good faith to ensure compliance with the law;

WHEREAS, EPA, the States, and the Citizen Plaintiffs anticipate that this Compliance Agreement (and the States' and Citizen Plaintiffs' Consent Decree), including the installation and operation of pollution control technology and other measures adopted pursuant to this Compliance Agreement and the Consent Decree, will achieve significant reductions of emissions from the TVA System and thereby significantly improve air quality;

WHEREAS, TVA is now undertaking a process to transform itself into a cleaner power system by reducing emissions from its coal-fired power plants, by retiring some coal-fired units, and by relying more on lower-emitting or non-emitting generation like natural gas and nuclear units and energy-efficiency and demand response programs;

WHEREAS, TVA disagreed with, and continues to disagree with, the allegations of the administrative compliance order and the findings of fact and conclusions of law of the Final Order on Reconsideration by the EAB, and denies that it violated the Act as so alleged and found (see Whitman, 336 F.3d at 1244-45);

WHEREAS, TVA wishes to resolve, without the uncertainty and expense associated with further litigation, the claims of EPA and other parties that it has violated any provisions of the Act's PSD, Nonattainment NSR, New Source Performance Standards ("NSPS"), minor new source review ("minor NSR"), or (to the extent related to such PSD, Nonattainment NSR, NSPS, and minor NSR claims) Title V Operating Permit programs by way of the activities identified in the administrative compliance order or other similar activities TVA has conducted at its coal-fired electricity generating plants;

WHEREAS, as specified in 168 of this Compliance Agreement, TVA has agreed to an expedited schedule to obtain the appropriate Clean Water Act National Pollutant Discharge Elimination System permits for the wastewater discharges from its flue gas desulfurization ("FGD") systems should EPA promulgate a final rule containing revisions to the Effluent Limitations Guidelines; EPA announced on September 15, 2009, its decision to proceed with a rulemaking to revise the existing Effluent Limitations Guidelines for the Steam Electric Power Generating industry; EPA had conducted a multi-year study of the wastewater discharges from the Steam Electric Power Generating industry and technologies available to treat those discharges; EPA determined that steam electric power plants are responsible for a significant amount of the toxic pollutant loadings discharged to surface waters by point sources, and coal ash ponds and FGD systems generate many of these loadings; and EPA concluded that the study demonstrated the need to consider updating the existing Effluent Limitations Guidelines;

WHEREAS, TVA plans to seek public review and comment during the environmental reviews conducted pursuant to the National Environmental Policy Act for the construction and

operation of any combustion turbine and combined cycle electric generating plants it proposes to add to its system;

NOW, THEREFORE, without any admission of fact or law, the Parties hereby agree as follows:

I. PURPOSE

1. The United States Environmental Protection Agency ("EPA") and the Tennessee Valley Authority ("TVA") enter into this Federal Facilities Compliance Agreement ("Compliance Agreement") to address violations of the Clean Air Act ("Act") alleged by EPA in In re Tennessee Valley Auth., 9 E.A.D. 357 (EAB 2000). The purpose of this Compliance Agreement is to establish a compliance program for TVA's fifty-nine (59) coal-fired boilers located at eleven (11) plants in Alabama, Kentucky, and Tennessee.

II. JURISDICTION

2. EPA and TVA enter into this Compliance Agreement pursuant to the Clean Air Act, 42 U.S.C. §§ 7401 et seq., and Executive Order 12088, 43 Fed. Reg. 47,707 (Oct. 13, 1978).

3. References in this Compliance Agreement to possible civil remedies against TVA shall be without prejudice to the position of the United States in its petition for a writ of certiorari in United States Envtl. Protection Agency v. Tennessee Valley Auth., No. 02-1162, that TVA, as an agency of the United States, lacks independent litigating authority, and shall not be interpreted as supporting or admitting any contrary position.

4. Subject to Paragraph 87 of the Consent Agreement and Final Order in In re Tennessee Valley Auth., Docket No. CAA-04-2010-1528(b), TVA retains the right to controvert

in any proceedings, other than a proceeding solely to enforce this Compliance Agreement, the validity of any of EPA's findings of fact or conclusions of law of this Compliance Agreement. TVA agrees to comply with and be bound by the terms of this Compliance Agreement, and further agrees in any proceeding solely to implement or enforce this Compliance Agreement, that it will not contest the validity of this Compliance Agreement or its terms.

III. PARTIES BOUND

5. The Parties to this Compliance Agreement are EPA and TVA.

6. Upon the Effective Date, the provisions of this Compliance Agreement shall apply to and be binding upon EPA and TVA and their successors and assigns, and TVA's officers, employees and agents, solely in their capacities as such.

IV. EPA'S FINDINGS OF FACT AND CONCLUSIONS OF LAW

7. EPA incorporates by reference, as if fully set forth herein, the findings of fact and conclusions of law (i.e., Section I. Nature of the Action/Jurisdictional Statements, Section II. Legal Background, Section III. Factual Allegations, and Section IV. Alleged Violations) contained in the Consent Agreement and Final Order between EPA and TVA, In re Tennessee Valley Auth., Docket No. CAA-04-2010-1528(b).

V. COMPLIANCE PROGRAM

8. TVA shall be responsible for providing a copy of this Compliance Agreement to all vendors, suppliers, consultants, contractors, agents, and any other company or other organization retained to perform any of the work required by this Compliance Agreement. Notwithstanding any retention of contractors, subcontractors, or agents to perform any work

required under this Compliance Agreement, TVA shall be responsible for ensuring that all work is performed in accordance with the requirements of this Compliance Agreement. For this reason, in any action to enforce this Compliance Agreement, TVA 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 Compliance Agreement, unless TVA establishes that such failure resulted from a Force Majeure Event, as defined in Paragraph 171 of this Compliance Agreement.

A. DEFINITIONS

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

10. "Alabama" means the State of Alabama, Alabama Department of Environmental Management.

11. "Baghouse" means a full stream (fabric filter) particulate emissions control device.

12. "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 (Nov. 25, 1986) and attachments thereto.

13. "Capital Expenditure" means all capital expenditures, as defined by Generally Accepted Accounting Principles as those principles exist as of the Date of Execution of this Compliance Agreement, excluding the cost of installing or upgrading pollution control devices.

14. "Citizen Plaintiffs" means, collectively, National Parks Conservation Association, Sierra Club, and Our Children's Earth Foundation.

15. "CEMS" means, for obligations involving NO_x and SO_2 under this Compliance Agreement, the devices defined in 40 C.F.R. § 72.2 and installed and maintained as required by 40 C.F.R. Part 75, and for obligations involving PM, the continuous emission monitors installed and maintained as described in 40 C.F.R. § 60.49Da(v).

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

17. "Compliance Agreement" or "Federal Facilities Compliance Agreement" means this Federal Facilities Compliance Agreement and the Appendices hereto, which are incorporated into this Compliance Agreement.

18. "Consent Decree" means the Consent Decree signed by the States, the Citizen Plaintiffs, and TVA and filed for lodging in Alabama *et al.* v. Tennessee Valley Auth., No. 11-_____ (E.D. Tenn. filed April 2011), in the United States District Court for the Eastern District of Tennessee. The Consent Decree is Exhibit 1 to this Compliance Agreement.

19. “Continuously Operate” or “Continuous Operation” means that when a pollution control technology or combustion control is used at a Unit (including, but not limited to, SCR, FGD, PM Control Device, SNCR, Low NO_x Burner (“LNB”), Overfire Air (“OFA”) or Separated Overfire Air (“SOFA”)), it shall be operated at all times such Unit is in operation (except during a Malfunction that is determined to be a Force Majeure Event), so as to minimize emissions to the greatest extent technically practicable consistent with the technological limitations, manufacturers' specifications, fire prevention codes, and good engineering and maintenance practices for such pollution control technology or combustion control and the Unit.

20. “Date of Execution” means the date that this Compliance Agreement has been signed by both TVA and EPA.

21. “Day” means calendar day unless otherwise specified in this Compliance Agreement.

22. “Effective Date” means sixty (60) days after the Date of Execution of this Compliance Agreement or, if public comments warrant a change to this Compliance Agreement after the Date of Execution, then the Effective Date shall mean sixty (60) days after the date that this Compliance Agreement has been re-signed by both TVA and EPA.

23. “Emission Rate” means the number of pounds of pollutant emitted per million British thermal units of heat input (“lb/mmBTU”), measured in accordance with this Compliance Agreement.

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

25. "EPA" means the United States Environmental Protection Agency.

26. "Flue Gas Desulfurization System" or "FGD" means a pollution control device with one or more absorber vessels that employs flue gas desulfurization technology for the control of SO_2 emissions. Unless Paragraph 89 expressly requires the installation and Continuous Operation of a Wet FGD, TVA may install either a Wet FGD or a Dry FGD.

27. "Greenhouse Gases" means the air pollutant defined at 40 C.F.R § 86.1818-12(a) as of the Date of Execution of this Compliance Agreement 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.

28. "Improved Unit" for NO_x means a TVA System Unit equipped with an SCR or scheduled under this Compliance Agreement to be equipped with an SCR (or equivalent control technology approved pursuant to 198) or Repowered to Renewable Biomass (as defined herein). A Unit may be an Improved Unit for one pollutant without being an Improved Unit for another. Any Other Unit in the TVA System can become an Improved Unit for NO_x if it is equipped with an SCR (or equivalent control technology approved pursuant to Paragraph 198) and the requirement to Continuously Operate the SCR or equivalent control technology is incorporated into a federally-enforceable non-Title V permit, or if it is Repowered to Renewable Biomass (as defined herein).

29. "Improved Unit" for SO_2 means a TVA System Unit equipped with an FGD or scheduled under this Compliance Agreement to be equipped with an FGD (or equivalent control

technology approved pursuant to Paragraph 198) or Repowered to Renewable Biomass (as defined herein). A Unit may be an Improved Unit for one pollutant without being an Improved Unit for another. Any Other Unit in the TVA System can become an Improved Unit for SO_2 if it is equipped with an FGD (or equivalent control technology approved pursuant to Paragraph 198) and the requirement to Continuously Operate the FGD or equivalent control technology is incorporated into a federally-enforceable non-Title V permit, or it is Repowered to Renewable Biomass (as defined herein).

30. "Kentucky" means the Commonwealth of Kentucky, Energy and Environment Cabinet.

31. "lb/mmBTU" means one pound per million British thermal units.

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

33. "MW" means a megawatt or one million Watts.

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

35. "New CC/CT Unit" shall have the meaning indicated in Paragraph 121, below.

36. "NSPS" means New Source Performance Standards within the meaning of Part A of Subchapter I of the Act, 42 U.S.C. § 7411, and 40 C.F.R. Part 60.

37. "Nonattainment NSR" means the nonattainment area new source review program within the meaning of Part D of Subchapter I of the Act, 42 U.S.C. §§ 7501-7515, 40 C.F.R. Part 51, and the federally-approved Nonattainment NSR provisions of the Alabama, Kentucky, and Tennessee State Implementation Plans ("SIPs"), including Ala. Admin. Code r. 335-3-14-.05, 401 Ky. Admin. Regs. 51:052, Tenn. Comp. R. & Regs.1200-3-9-.01(5), and the Memphis/Shelby County local program.

38. "NO_x" means oxides of nitrogen, measured in accordance with the provisions of this Compliance Agreement.

39. "NO_x Allowance" means an authorization or credit to emit a specified amount of NO_x that is allocated or issued under an emissions trading or marketable permit program of any kind that has been established under the Act and/or the Alabama, Kentucky, or Tennessee SIPs.

40. "North Carolina" means the State of North Carolina.

41. "Other Unit" means any Unit at the Shawnee Plant that is not an Improved Unit for the pollutant in question.

42. "Operational or Ownership Interest" means part or all of TVA's legal or equitable operational or ownership interest in any Unit in the TVA System or any New CC/CT Unit(s).

43. "Parties" means EPA and TVA.

44. "Parallel Provision" means a requirement or prohibition of this Compliance Agreement that is also a requirement or prohibition of the Consent Decree.

45. "PM" means particulate matter, as measured in accordance with the requirements of this Compliance Agreement.

46. "PM Control Device" means any device, including an ESP or a Baghouse, which reduces emissions of PM. If a Wet FGD is the only device controlling PM on a particular Unit, then the Wet FGD is the PM Control Device.

47. "PM Emission Rate" means the number of pounds of filterable PM emitted per million British thermal units of heat input ("lb/mmBTU"), as measured in accordance with this Compliance Agreement.

48. "Project Dollars" means TVA's expenditures and payments incurred or made in carrying out the Environmental Mitigation Projects identified in Section V.F (Environmental Mitigation Projects) of this Compliance Agreement to the extent that such expenditures or payments both (a) comply with the requirements set forth in Section V.F (Environmental Mitigation Projects) and Appendix C of this Compliance Agreement, and (b) constitute TVA's direct payments for such projects and TVA's external costs for contractors, vendors, and equipment.

49. "PSD" means Prevention of Significant Deterioration within the meaning of Part C of Subchapter I of the Act, 42 U.S.C. §§ 7470 - 7492 and 40 C.F.R. Part 52, and the federally-approved PSD provisions of the Alabama, Kentucky, and Tennessee SIPs, including Ala. Admin. Code r. 335-3-14-.04, 401 Ky. Admin. Reg. 51:017, Tenn. Comp. R. & Regs. 1200-3-9-.01(4), and the Memphis/Shelby County local program.

50. "Region 4 Air Director" means the EPA Region 4 Director of Air, Pesticides and Toxics Management Division.

51. "Remove from Service" means:

a. with regard to the John Sevier plant, that two (2) Units of the four (4) Units shall cease to operate and emit any pollutants whatsoever by the dates specified in Paragraphs 73 and 89 for the 2 Units to be Removed from Service unless and until an SCR and FGD are installed and commence Continuous Operation for each such Unit, or the Unit(s) is Repowered to Renewable Biomass or Retired, which shall occur by no later than the second date specified in Paragraphs 73 and 89 for the 2 Units that are Removed from Service provided that TVA may elect which 2 Units at the John Sevier plant it will Remove from Service and that the remaining 2 Units shall be Retired as set forth in Paragraphs 73 and 89, and

b. with regard to Colbert Units 1-5, that such Units shall cease to operate and emit any pollutants whatsoever by the dates specified in Paragraphs 73 and 89 unless and until, by no later than three (3) years thereafter, an SCR and FGD are installed and commence Continuous Operation for each such Unit(s) or the Unit(s) is Repowered to Renewable Biomass or Retired, as specified therein.

52. "Renewable Biomass" means, solely for purposes of this Compliance Agreement, any organic matter that is available on a renewable basis from non-Federal land or from federal land that TVA manages, including renewable plant material; waste material, including crop residue; other vegetative waste material, including wood waste and wood residues; animal waste and byproducts; construction, food and yard waste; and residues and byproducts from wood pulp or paper products facilities. Biomass is renewable if it originates from forests that remain forests, or from croplands and/or grasslands that remain cropland and/or grassland or revert to forest. Biomass residues and byproducts from wood pulp or paper products facilities includes by-

products, residues, and waste streams from agriculture, forestry, and related industries, but does not include used oil or expired pesticides. "Renewable Biomass" does not include any treated wood, including but not limited to, railroad ties, painted woods, or wood that has been treated with pentachlorophenol, copper-based and borate-based compounds, or creosote.

53. "Repower" or "Repowered" means Repower to Renewable Biomass or Repowered to Renewable Biomass.

54. "Repower to Renewable Biomass" or "Repowered to Renewable Biomass" for purposes of this Compliance Agreement means a TVA System Unit that is repowered to combust a fuel other than coal. Such a Repowered Unit shall only combust Renewable Biomass; provided, however, that such Repowered Unit may co-fire a fuel other than Renewable Biomass (but not used oil, expired pesticides, or any treated wood, including but not limited to, railroad ties, painted wood, or wood that has been treated with pentachlorophenol, copper-based and borate-based compounds, or creosote) up to six percent (6%) of heat input each calendar year for the Unit. Notwithstanding Section V.H (Resolution of Claims Against TVA) and Paragraph 120, for Shawnee Unit 10 and any other TVA System Unit that TVA Repowers to Renewable Biomass pursuant to Paragraphs 73 or 89, TVA shall apply for all required permits. A new source review permit under the PSD and/or Nonattainment NSR programs is a required permit within the meaning of this Paragraph; such a Repowered Unit is a "new emissions unit" as that term is defined in 40 C.F.R. §§ 52.21(b)(7)(i), 51.165(a)(1)(vii)(A), and 51.166(b)(7)(i), and the relevant SIP; and such Unit shall be subject to the test described in 40 C.F.R. §§ 52.21(a)(2)(iv)(d), 51.165(a)(2)(ii)(D), and 51.166(a)(7)(d), and the relevant SIP. In such

permitting action, TVA shall apply to include the limitation on co-firing a fuel other than Renewable Biomass as specified above. Any TVA System Unit that has the option to Repower to Renewable Biomass in Paragraphs 73 and 89 that TVA elects to Repower to Renewable Biomass as the Control Requirement under this Compliance Agreement, shall be subject to the prohibitions in Section V.E (Prohibition on Netting or Offsets From Required Controls). If Shawnee Unit 10 is Repowered to Renewable Biomass, it shall be subject to the prohibitions in Section V.E (Prohibition on Netting or Offsets From Required Controls) regarding netting credits.

55. "Retire" means that TVA shall permanently cease to operate the Unit such that the Unit cannot legally burn any fuel nor produce any steam for electricity production and TVA shall comply with applicable state and/or federal requirements for permanently retiring a coal-fired electric generating unit, including removing the Unit from the relevant state's air emissions inventory, and amending all applicable permits so as to reflect the permanent shutdown status of such Unit. Nothing herein shall prevent TVA from seeking to re-start the Retired Unit provided that TVA applies for, and obtains, all required permits. A new source review permit under the PSD and/or Nonattainment NSR programs is a required permit within the meaning of this Paragraph; such Retired Unit shall be a "new emissions unit" as that term is defined in 40 C.F.R. §§ 52.21(b)(7)(i), 51.165(a)(1)(vii)(A), and 51.166(b)(7)(i), and the relevant SIP; and such Retired Unit shall be subject to the test described in 40 C.F.R. §§ 52.21(a)(2)(iv)(d), 51.165(a)(2)(ii)(D), and 51.166(a)(7)(d), and the relevant SIP.

56. "Selective Catalytic Reduction" or "SCR" means a pollution control device that employs selective catalytic reduction technology for the reduction of NO_x emissions.

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

58. "Startup" and "Shutdown" mean, as to each of those terms, the definition of those respective terms in 40 C.F.R. § 60.2.

59. "States" or "the States" refers collectively to Alabama, Kentucky, North Carolina, and Tennessee.

60. "SO_2" means sulfur dioxide, as measured in accordance with the provisions of this Compliance Agreement.

61. "SO_2 Allowance" means an authorization or credit to emit a specified amount of SO_2 that is allocated or issued under an emissions trading or marketable permit program of any kind that has been established under the Act or the Alabama, Kentucky, or Tennessee SIPs.

62. "Surrender" or "surrender of allowances" means, for purposes of SO_2 or NO_x allowances, permanently surrendering allowances as required by this Compliance Agreement from the accounts administered by EPA and Alabama, Kentucky, and Tennessee for all Units in the TVA System, so that such allowances can never be used thereafter by any entity to meet any compliance requirement under the Act, a SIP, or this Compliance Agreement.

63. "System-Wide Annual Tonnage Limitation" means the number of tons of the pollutant in question that may be emitted collectively from the TVA System and any New CC/CT Units during the relevant calendar year (i.e., January 1 through December 31), and shall include

all emissions of the pollutant emitted during all periods of operation, including Startup, Shutdown, and Malfunction.

64. "Tennessee" means the State of Tennessee, Tennessee Department of Environment and Conservation ("TDEC").

65. "Tennessee State Implementation Plan" and "Tennessee Title V program" shall include, when applicable, the new source review provisions of the Memphis/Shelby County local program, and its implementing regulations, and its Title V permit program.

66. "TVA" means Tennessee Valley Authority, a federal agency and instrumentality of the United States.

67. "TVA System" means solely for purposes of this Compliance Agreement, the following coal-fired, electric steam generating Units (with nameplate MW capacity of each Unit, for identification purposes only) or such coal-fired Unit that is Repowered to Renewable Biomass, located at the following plants:

a Allen Unit 1 (330 MW), Allen Unit 2 (330 MW), and Allen Unit 3 (330 MW) located at the Allen Fossil Plant near Memphis, Tennessee;

b. Bull Run Unit 1 (950 MW) located at the Bull Run Fossil Plant near Oak Ridge, Tennessee;

c. Colbert Unit 1 (200 MW), Colbert Unit 2 (200 MW), Colbert Unit 3 (200 MW), Colbert Unit 4 (200 MW), and Colbert Unit 5 (550 MW) located at the Colbert Fossil Plant in Tuscumbia, Alabama;

d. Cumberland Unit 1 (1300 MW) and Cumberland Unit 2 (1300 MW) located at the Cumberland Fossil Plant in Cumberland City, Tennessee;

e. Gallatin Unit 1 (300 MW), Gallatin Unit 2 (300 MW), Gallatin Unit 3 (327.6 MW), and Gallatin Unit 4 (327.6 MW) located at the Gallatin Fossil Plant in Gallatin, Tennessee;

f. John Sevier Unit 1 (200 MW), John Sevier Unit 2 (200 MW), John Sevier Unit 3 (200 MW), and John Sevier Unit 4 (200 MW) located at the John Sevier Fossil Plant near Rogersville, Tennessee;

g. Johnsonville Unit 1 (125 MW), Johnsonville Unit 2 (125 MW), Johnsonville Unit 3 (125 MW), Johnsonville Unit 4 (125 MW), Johnsonville Unit 5 (147 MW), Johnsonville Unit 6 (147 MW), Johnsonville Unit 7 (172.8 MW), Johnsonville Unit 8 (172.8 MW), Johnsonville Unit 9 (172.8 MW), and Johnsonville Unit 10 (172.8 MW) located at the Johnsonville Fossil Plant near Waverly, Tennessee;

h. Kingston Unit 1 (175 MW), Kingston Unit 2 (175 MW), Kingston Unit 3 (175 MW), Kingston Unit 4 (175 MW), Kingston Unit 5 (200 MW), Kingston Unit 6 (200 MW), Kingston Unit 7 (200 MW), Kingston Unit 8 (200 MW), and Kingston Unit 9 (200 MW) located at the Kingston Fossil Plant near Kingston, Tennessee;

i. Paradise Unit 1 (704 MW), Paradise Unit 2 (704 MW), and Paradise Unit 3 (1150.2 MW) located at the Paradise Fossil Plant in Drakesboro, Kentucky;

j. Shawnee Unit 1 (175 MW), Shawnee Unit 2 (175 MW), Shawnee Unit 3 (175 MW), Shawnee Unit 4 (175 MW), Shawnee Unit 5 (175 MW), Shawnee Unit 6 (175 MW), Shawnee Unit 7 (175 MW), Shawnee Unit 8 (175 MW), Shawnee Unit 9 (175 MW), and Shawnee Unit 10 (175 MW) located at the Shawnee Fossil Plant near Paducah, Kentucky; and

k. Widows Creek Unit 1 (140.6 MW), Widows Creek Unit 2 (140.6 MW), Widows Creek Unit 3 (140.6 MW), Widows Creek Unit 4 (140.6 MW), Widows Creek Unit 5 (140.6 MW), Widows Creek Unit 6 (140.6 MW), Widows Creek Unit 7 (575 MW), and Widows Creek Unit 8 (550 MW) located at the Widows Creek Fossil Plant near Stevenson, Alabama.

68. "Title V Permit" means the permit required of TVA's major sources under Subchapter V of the Act, 42 U.S.C. §§ 7661-7661e; Ala. Code §§ 22-22A-1 to -16, §§ 22-28-1 to -23 (2006 Rplc. Vol.), and Ala. Admin. Code r. 335-3-16; Ky. Rev. Stat. Ann. §§ 224.20-100 to -120, and 401 Ky. Admin. Reg. 52:020; and Tenn. Comp. R. & Regs. R. 1200-3-9-.02.

69. "Unit" means collectively, the coal pulverizer, stationary equipment that feeds coal to the boiler, the boiler that produces steam for the steam turbine, the steam turbine, the generator, the equipment necessary to operate the generator, steam turbine and boiler, and all ancillary equipment, including pollution control equipment. An electric steam generating station

may comprise one or more Units. "Unit" shall also include any coal-fired TVA System Unit identified in Paragraph 67 that is Repowered to Renewable Biomass pursuant to this Compliance Agreement.

70. "VOC" means volatile organic compounds as defined in 40 C.F.R. § 51.100.

B. NO_x EMISSION REDUCTIONS AND CONTROLS

1. NO_x Emission Limitations.

71. System-Wide Annual Tonnage Limitations for NO_x. During each calendar year specified in the table below, all Units in the TVA System and any New CC/CT Units constructed pursuant to Paragraph 121, collectively, shall not emit NO_x in excess of the following System-Wide Annual Tonnage Limitations:

Calendar Year	**System-Wide Tonnage Limitation for NO_x**
2011	100,600
2012	100,600
2013	90,791
2014	86,842
2015	83,042
2016	70,667
2017	64,951
2018, and each year thereafter	52,000

72. If TVA elects to Remove from Service any or all of Colbert Units 1-5 either pursuant to Paragraph 73 or Paragraph 89, then the System-Wide Annual Tonnage Limitations for NO_x in each calendar year for which such Unit(s) is Removed from Service shall be adjusted as follows:

Unit	Tons by Which System-Wide Annual Tonnage Limitation for NO_x Shall be Reduced If Unit is Removed From Service in a Calendar Year
Colbert Unit 1	700 tons
Colbert Unit 2	500 tons
Colbert Unit 3	500 tons
Colbert Unit 4	500 tons
Colbert Unit 5	1,200 tons

2. NO_x Control Requirements.

73. No later than the dates set forth in the table below, and continuing thereafter, TVA shall install and commence Continuous Operation of the pollution control technology identified therein or, if indicated in the table, Retire or Repower each Unit identified therein, or, solely for Colbert Units 1-4 and two (2) Units at the John Sevier plant, Remove from Service as defined herein:

Plant	Unit	Control Requirement	Date
Allen	Unit 1	SCR	Effective Date
Allen	Unit 2	SCR	Effective Date
Allen	Unit 3	SCR	Effective Date
Bull Run	Unit 1	SCR	Effective Date
Colbert	Unit 1	Remove from Service, SCR, Repower to Renewable Biomass, or Retire	June 30, 2016
Colbert	Unit 2	Remove from Service, SCR, Repower to Renewable Biomass, or Retire	June 30, 2016
Colbert	Unit 3	Remove from Service, SCR, Repower to Renewable Biomass, or Retire	June 30, 2016

Plant	Unit	Control Requirement	Date
Colbert	Unit 4	Remove from Service, SCR, Repower to Renewable Biomass, or Retire	June 30, 2016
Colbert	Unit 5	SCR	Effective Date
Cumberland	Unit 1	SCR	Effective Date
Cumberland	Unit 2	SCR	Effective Date
Gallatin	Unit 1	SCR, Repower to Renewable Biomass, or Retire	December 31, 2017
Gallatin	Unit 2	SCR, Repower to Renewable Biomass, or Retire	December 31, 2017
Gallatin	Unit 3	SCR, Repower to Renewable Biomass, or Retire	December 31, 2017
Gallatin	Unit 4	SCR, Repower to Renewable Biomass, or Retire	December 31, 2017
John Sevier	2 Units	Retire	December 31, 2012
John Sevier	2 other Units	Remove from Service	December 31, 2012
		SCR, Repower to Renewable Biomass, or Retire	December 31, 2015
Johnsonville	Units 1 - 10	Retire	6 Units by December 31, 2015
			4 additional Units by December 31, 2017
Kingston	Unit 1	SCR	Effective Date
Kingston	Unit 2	SCR	Effective Date
Kingston	Unit 3	SCR	Effective Date
Kingston	Unit 4	SCR	Effective Date
Kingston	Unit 5	SCR	Effective Date
Kingston	Unit 6	SCR	Effective Date
Kingston	Unit 7	SCR	Effective Date
Kingston	Unit 8	SCR	Effective Date
Kingston	Unit 9	SCR	Effective Date

Plant	Unit	Control Requirement	Date
Paradise	Unit 1	SCR	Effective Date
Paradise	Unit 2	SCR	Effective Date
Paradise	Unit 3	SCR	Effective Date
Shawnee	Unit 1	SCR, Repower to Renewable Biomass, or Retire	December 31, 2017
Shawnee	Unit 4	SCR, Repower to Renewable Biomass, or Retire	December 31, 2017
Widows Creek	Units 1-6	Retire	2 Units by July 31, 2013
			2 additional Units by July 31, 2014
			2 additional Units by July 31, 2015
Widows Creek	Unit 7	SCR	Effective Date
Widows Creek	Unit 8	SCR	Effective Date

74. Notwithstanding Paragraph 73, TVA's failure to (a) complete installation and commence Continuous Operation of a pollution control technology by the date specified in the table in Paragraph 73 or (b) Repower to Renewable Biomass by the date specified in the table in Paragraph 73, shall not be a violation of this Compliance Agreement if such Unit:

(i) ceases to operate and emit any pollutants whatsoever at least sixty (60) days before the date specified in the table in Paragraph 73, and

(ii) the installation is completed and the Unit commences Continuous Operation of the pollution control technology specified in the table in Paragraph 73 or as a Repowered Unit no later than ninety (90) days after the date specified in the table in Paragraph 73. If TVA fails to commence Continuous Operation of the pollution control technology or the

Repowered Unit ninety (90) days after such date, then TVA shall be subject to stipulated penalties for the entire period commencing on the date specified in the Table in Paragraph 73.

75. Beginning upon the Effective Date of this Compliance Agreement and continuing thereafter, TVA shall (a) Continuously Operate existing LNB, OFA, and SOFA combustion controls at all Units in the TVA System and (b) Continuously Operate existing SNCR technology at all Units in the TVA System equipped with such technology as of the Date of Execution of this Compliance Agreement (i.e., John Sevier Units 1-4 and Johnsonville Units 1-4) unless and until such Unit is equipped with an SCR and TVA Continuously Operates such SCR pursuant to this Compliance Agreement, or such Unit is Retired or Repowered pursuant to this Compliance Agreement.

76. For TVA System Units with two or more methods specified in the Control Requirement column in the table in Paragraph 73, above, TVA shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section X (Notices) of its election as to which of the Control Requirement methods it will employ at such Unit by no later than three (3) years prior to the date specified in the table for that Unit. For the Units at the John Sevier plant, TVA shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section X (Notices) of this Compliance Agreement of its election as to which two (2) Units it will Retire and which two (2) Units it will at least initially Remove from Service, by no later than June 30, 2012. For any TVA System Unit that TVA timely elects to control with SCR or Repower to Renewable Biomass, TVA may change its election to Retire at any time prior to the date specified in the table in Paragraph 73. TVA shall provide notice to EPA, the States, and the Citizen Plaintiffs

pursuant to Section X (Notices) of its decision to Retire the Unit, with an explanation for its decision to change the election, by no later than ten (10) business days following its decision to change its election from SCR or Repower to Renewable Biomass to Retire.

77. Solely for the Units at the Colbert plant, if TVA elects the Remove from Service option, it shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section X (Notices) at the time such Units are required to be Removed from Service as to which method specified in the Control Requirement column in the table in Paragraph 73 it will employ at such Unit.

3. Use and Surrender of NO_x Allowances.

78. TVA shall not use NO_x Allowances to comply with any requirement of this Compliance Agreement, including by claiming compliance with any emission limitation required by this Compliance Agreement by using, tendering, or otherwise applying NO_x Allowances to offset any excess emissions.

79. Beginning with calendar year 2011, and continuing each calendar year thereafter, TVA shall surrender all NO_x Allowances allocated to the TVA System for that calendar year that TVA does not need in order to meet its own federal and/or state Clean Air Act regulatory requirements for the TVA System for that calendar year. However, NO_x Allowances allocated to the TVA System may be used by TVA to meet its own federal and/or state Clean Air Act regulatory requirements for the Units included in the TVA System.

80. Nothing in this Compliance Agreement shall prevent TVA from purchasing or otherwise obtaining NO_x Allowances from another source for purposes of complying with federal

and/or state Clean Air Act regulatory requirements (i.e., emissions trading or marketable permit programs) to the extent otherwise allowed by law.

81. The requirements of this Compliance Agreement pertaining to TVA's use and surrender of NO_x Allowances are permanent injunctions not subject to any termination provision of this Compliance Agreement.

4. Super-Compliance Allowances.

82. Notwithstanding Paragraph 79, in each calendar year beginning in 2011, and continuing thereafter, TVA may sell, bank, use, trade, or transfer any NO_x Allowances made available in that calendar year as a result of maintaining actual NO_x emissions from the combined total of (a) the TVA System and (b) any New CC/CT Unit(s) constructed pursuant to Paragraph 121 below the System-Wide Annual Tonnage Limitations for NO_x for such calendar year ("Super-Compliance Allowances"); provided, however, that reductions in NO_x emissions that TVA utilizes as provided in Paragraph 121 to support the permitting of a New CC/CT Unit(s) shall not be available to generate Super-Compliance Allowances within the meaning of this Paragraph in the calendar year in which TVA utilizes such emission reductions and all calendar years thereafter. TVA shall timely report the generation of all Super-Compliance NO_x Allowances in accordance with Section V.I (Periodic Reporting) of this Compliance Agreement, and shall specifically identify any Super-Compliance NO_x Allowances that TVA generates from Retiring a TVA System Unit and that TVA did not utilize for purposes of Paragraph 121.

5. Method for Surrender of NO_x Allowances.

83. TVA shall surrender all NO_x Allowances required to be surrendered pursuant to Paragraph 79 by April 30 of the immediately following calendar year.

84. For all NO_x Allowances required to be surrendered, TVA shall first submit a NO_x Allowance transfer request form to EPA's Office of Air and Radiation's Clean Air Markets Division directing the transfer of such NO_x Allowances to the EPA Enforcement Surrender Account or to any other EPA account that EPA may direct in writing. As part of submitting these transfer requests, TVA shall irrevocably authorize the transfer of these NO_x Allowances and identify -- by name of account and any applicable serial or other identification numbers or station names -- the source and location of the NO_x Allowances being surrendered.

6. NO_x Monitoring Provisions.

85. TVA shall use CEMS in accordance with 40 C.F.R. Part 75 to monitor its emissions of NO_x from the TVA System Units and any New CC/CT Unit(s) for purposes of demonstrating compliance with the applicable System-Wide Annual Tonnage Limitations specified in Paragraph 71 of this Compliance Agreement.

C. SO_2 EMISSION REDUCTIONS AND CONTROLS

1. SO_2 Emission Limitations.

86. System-Wide Annual Tonnage Limitations for SO_2. During each calendar year specified in the table below, all Units in the TVA System and any New CC/CT Unit(s) constructed pursuant to Paragraph 121, collectively, shall not emit SO_2 in excess of the following System-Wide Annual Tonnage Limitations:

Calendar Year	**System-Wide Tonnage Limitation for SO_2**
2011	285,000
2012	285,000
2013	235,518
2014	228,107
2015	220,631
2016	175,626

Calendar Year	System-Wide Tonnage Limitation for SO_2
2017	164,257
2018	121,699
2019, and each year thereafter	110,000

87. If TVA elects to Remove from Service any or all of Colbert Units 1-5 either pursuant to Paragraph 73 or Paragraph 89, then the System-Wide Annual Tonnage Limitations for SO_2 in each calendar year for which such Unit(s) is Removed from Service shall be adjusted as follows:

Calendar Year	Tons by Which System-Wide Annual Tonnage Limitation for SO_2 Shall be Reduced If Unit is Removed From Service in a Calendar Year
Colbert Unit 1	700 tons
Colbert Unit 2	1,100 tons
Colbert Unit 3	1,000 tons
Colbert Unit 4	1,100 tons
Colbert Unit 5	2,600 tons

88. If TVA must shut down one or more of its nuclear units for more than one hundred and twenty (120) consecutive days within calendar year 2011 or within calendar year 2012 because of a forced outage or in response to a safety concern as required by the Nuclear Regulatory Commission, then the System-Wide Annual Tonnage Limitation for SO_2 for that calendar year shall be 295,000 tons rather than 285,000 tons as specified in the table in Paragraph 86. If TVA must shut down one or more of its nuclear units for more than one hundred and twenty (120) consecutive days within calendar year 2013 or within calendar year 2014 because of a forced outage or in response to a safety concern as required by the Nuclear Regulatory Commission, then the System-Wide Annual Tonnage Limitation for SO_2 for calendar year 2013 shall be 241,700 tons rather than 235,518 tons as specified in the table in Paragraph 86 and the

System-Wide Annual Tonnage Limitation for SO_2 for calendar year 2014 shall be 234,000 tons rather than 228,107 tons as specified in the table in Paragraph 86. In order to put EPA, the States, and the Citizen Plaintiffs on notice of this potential event, TVA shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section X (Notices), and include a summary of the circumstances causing the shut down and TVA's efforts to bring the unit back on line, commencing no later than thirty (30) days following the shutdown of a nuclear unit, and continuing every thirty (30) days thereafter until either (a) the unit comes back online or (b) the unit remains shut down for one hundred twenty (120) consecutive days, whichever is earlier. In this circumstance, TVA shall, to the extent practicable, increase utilization of any Units in the TVA System that are controlled with FGDs and/or SCRs and/or any New CC/CT Unit(s) constructed pursuant to Paragraph 121 to replace the lost power generation from the nuclear unit before increasing utilization of uncontrolled TVA System Units.

2. SO_2 Control Requirements.

89. No later than the dates set forth in the table below, and continuing thereafter, TVA shall install and commence Continuous Operation of the pollution control technology at each Unit identified therein or, if indicated in the table, Retire or Repower each Unit identified therein, or, solely for Colbert Units 1-5 and two (2) Units at the John Sevier plant, Remove from Service as defined herein:

Plant	**Unit**	**Control Requirement**	**Date**
Allen	Unit 1	FGD or Retire	December 31, 2018
Allen	Unit 2	FGD or Retire	December 31, 2018

Plant	Unit	Control Requirement	Date
Allen	Unit 3	FGD or Retire	December 31, 2018
Bull Run	Unit 1	Wet FGD	Effective Date
Colbert	Unit 1	Remove from Service, FGD, Repower to Renewable Biomass, or Retire	June 30, 2016
Colbert	Unit 2	Remove from Service, FGD, Repower to Renewable Biomass, or Retire	June 30, 2016
Colbert	Unit 3	Remove from Service, FGD, Repower to Renewable Biomass, or Retire	June 30, 2016
Colbert	Unit 4	Remove from Service, FGD, Repower to Renewable Biomass, or Retire	June 30, 2016
Colbert	Unit 5	Remove from Service, FGD or Retire	December 31, 2015
Cumberland	Unit 1	Wet FGD	Effective Date
Cumberland	Unit 2	Wet FGD	Effective Date
Gallatin	Unit 1	FGD, Repower to Renewable Biomass, or Retire	December 31, 2017
Gallatin	Unit 2	FGD, Repower to Renewable Biomass, or Retire	December 31, 2017
Gallatin	Unit 3	FGD, Repower to Renewable Biomass, or Retire	December 31, 2017
Gallatin	Unit 4	FGD, Repower to Renewable Biomass, or Retire	December 31, 2017
John Sevier	2 Units	Retire	December 31, 2012
John Sevier	2 other Units	Remove from Service	December 31, 2012
		FGD, Repower to Renewable Biomass, or Retire	December 31, 2015
Johnsonville	Units 1 - 10	Retire	6 Units by December 31, 2015
			4 additional Units by December 31, 2017
Kingston	Unit 1	Wet FGD	Effective Date
Kingston	Unit 2	Wet FGD	Effective Date
Kingston	Unit 3	Wet FGD	Effective Date

Plant	Unit	Control Requirement	Date
Kingston	Unit 4	Wet FGD	Effective Date
Kingston	Unit 5	Wet FGD	Effective Date
Kingston	Unit 6	Wet FGD	Effective Date
Kingston	Unit 7	Wet FGD	Effective Date
Kingston	Unit 8	Wet FGD	Effective Date
Kingston	Unit 9	Wet FGD	Effective Date
Paradise	Unit 1	FGD Upgrade to 93% Removal Efficiency	December 31, 2012
Paradise	Unit 2	FGD Upgrade to 93% Removal Efficiency	December 31, 2012
Paradise	Unit 3	Wet FGD	Effective Date
Shawnee	Unit 1	FGD, Repower to Renewable Biomass, or Retire	December 31, 2017
Shawnee	Unit 4	FGD, Repower to Renewable Biomass, or Retire	December 31, 2017
Widows Creek	Units 1-6	Retire	2 Units by July 31, 2013
			2 additional units by July 31, 2014
			2 additional Units by July 31, 2015
Widows Creek	Unit 7	Wet FGD	Effective Date
Widows Creek	Unit 8	Wet FGD	Effective Date

Notwithstanding any requirement specified in the preceding table to Continuously Operate a Wet FGD at Kingston Units 1-9, TVA shall not be required to Continuously Operate such Wet FGD(s) until either: (a) TDEC authorizes disposal of gypsum in the Class II landfill (IDL 73-0211) which, as of the Date of Execution of this Compliance Agreement, is prohibited pursuant to TDEC's Order dated December 17, 2010 in Case No. SWM10-0010 or (b) September 20, 2011, whichever occurs sooner. During the period when this exemption is in effect, TVA shall (a) burn coal at Kingston that achieves a 30-day rolling average emission rate for SO_2 of no greater than 1.1 lb/mmBTU and (b) operate Kingston only after Bull Run is dispatched first.

This exemption shall not relieve TVA of its obligation to comply with the 2011 SO2 System-Wide Annual Tonnage Limitation and shall not relieve TVA of any other control requirements relating to Kingston, except as provided in Paragraph 104.

90. Notwithstanding Paragraph 89, TVA's failure to (a) complete installation and commence Continuous Operation of a pollution control technology by the date specified in the table in Paragraph 89 or (b) Repower to Renewable Biomass by the date specified in the table in Paragraph 89, shall not be a violation of this Compliance Agreement if such Unit:

(i) ceases to operate and emit any pollutants whatsoever at least sixty (60) days before the date specified in the table in Paragraph 89, and

(ii) the installation is completed and the Unit commences Continuous Operation of the pollution control technology specified in the table in Paragraph 89 or as a Repowered Unit no later than ninety (90) days after the date specified in the table in Paragraph 89. If TVA fails to commence Continuous Operation of the pollution control technology or the Repowered Unit ninety (90) days after such date, then TVA shall be subject to stipulated penalties for the entire period commencing on the date specified in the Table in Paragraph 89.

91. Upon the Effective Date of this Compliance Agreement, and continuing thereafter, emissions of SO_2 from Shawnee Units 1-10 shall not exceed 1.2 lb/mmBTU. Compliance with this limitation shall be demonstrated using the procedures specified in the Clean Air Act operating permit for the Shawnee facility.

92. For TVA System Units with two or more methods specified in the Control Requirement column in the table in Paragraph 89, above, TVA shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section X (Notices) of its election as to which of the

Control Requirement methods it will employ at such Unit by no later than three (3) years prior to the date specified in the Table for that Unit. For the Units at the John Sevier plant, TVA shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section X (Notices) of this Compliance Agreement of its election as to which two (2) Units it will Retire and which two (2) Units it will at least initially Remove from Service, by no later than June 30, 2012. For any TVA System Unit that TVA timely elects to control with FGD or Repower to Renewable Biomass, TVA may change its election to Retire at any time prior to the date specified in the table in Paragraph 89. TVA shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section X (Notices) of its decision to Retire the Unit, with an explanation for its decision to change the election, by no later than ten (10) business days following its decision to change its election from FGD or Repower to Renewable Biomass to Retire.

93. Solely for the Units at the Colbert plant, if TVA elects the Remove from Service option, it shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section X (Notices) at the time such Units are required to be Removed from Service as to which method specified in the Control Requirement column in the table in Paragraph 89 it will employ at such Unit.

3. Use and Surrender of SO_2 Allowances.

94. TVA shall not use SO_2 Allowances to comply with any requirement of this Compliance Agreement, including by claiming compliance with any emission limitation required by this Compliance Agreement by using, tendering, or otherwise applying SO_2 Allowances to offset any excess emissions.

95. Beginning with calendar year 2011, and continuing each calendar year thereafter, TVA shall surrender all SO_2 Allowances allocated to the TVA System for that calendar year that TVA does not need in order to meet its own federal and/or state Clean Air Act regulatory requirements for the TVA System Units for that calendar year. However, SO_2 Allowances allocated to the TVA System may be used by TVA to meet its own federal and/or state Clean Air Act regulatory requirements for the TVA System Units.

96. Nothing in this Compliance Agreement shall prevent TVA from purchasing or otherwise obtaining SO_2 Allowances from another source for purposes of complying with federal and/or state Clean Air Act regulatory requirements (i.e., emissions trading or marketable permit programs) to the extent otherwise allowed by law.

97. The requirements in this Compliance Agreement pertaining to TVA's use and surrender of SO_2 Allowances are permanent injunctions not subject to any termination provision of this Compliance Agreement.

4. Super-Compliance Allowances.

98. Notwithstanding Paragraph 95, in each calendar year beginning in 2011, and continuing thereafter, TVA may sell, bank, use, trade, or transfer any SO_2 Allowances made available in that calendar year as a result of maintaining actual SO_2 emissions from the combined total of (a) the TVA System and (b) any New CC/CT Unit(s) constructed pursuant to Paragraph 121 below the System-Wide Annual Tonnage Limitations for SO_2 for such calendar year ("Super-Compliance Allowances"); provided, however, that reductions in SO_2 emissions that TVA utilizes as provided in Paragraph 121 to support the permitting of a New CC/CT Unit(s) shall not be available to generate Super-Compliance Allowances within the meaning of this

Paragraph in the calendar year in which TVA utilizes such emission reductions and all calendar years thereafter. TVA shall timely report the generation of all Super-Compliance SO_2 Allowances in accordance with Section V.I (Periodic Reporting) of this Compliance Agreement, and shall specifically identify any Super-Compliance SO_2 Allowances that TVA generates from Retiring a TVA System Unit and that TVA did not utilize for purposes of Paragraph 121.

5. Method for Surrender of SO_2 Allowances.

99. TVA shall surrender all SO_2 Allowances required to be surrendered pursuant to Paragraph 95 by April 30 of the immediately following year.

100. For all SO_2 Allowances required to be surrendered, TVA shall first submit an SO_2 Allowance transfer request form to EPA's Office of Air and Radiation's Clean Air Markets Division directing the transfer of such SO_2 Allowances to the EPA Enforcement Surrender Account or to any other EPA account that EPA may direct in writing. As part of submitting these transfer requests, TVA shall irrevocably authorize the transfer of these SO_2 Allowances and identify -- by name of account and any applicable serial or other identification numbers or station names -- the source and location of the SO_2 Allowances being surrendered.

6. SO_2 Monitoring Provisions.

101. TVA shall use CEMS in accordance with 40 C.F.R. Part 75 to monitor its emissions of SO_2 from the TVA System Units and any New CC/CT Unit(s) for purposes of demonstrating compliance with the applicable System-Wide Annual Tonnage Limitations specified in Paragraph 86 of this Compliance Agreement.

D. PM EMISSION REDUCTIONS AND CONTROLS

1. Optimization of Existing PM Control Devices.

102. Beginning sixty (60) days after the Effective Date of this Compliance Agreement, and continuing thereafter, TVA shall Continuously Operate each PM Control Device on each Unit in the TVA System. TVA shall, at a minimum, to the extent reasonably practicable and consistent with manufacturers' specifications, the operational design of the Unit, and good engineering practices (a) fully energize each section of the ESP for each Unit, and where applicable, operate each compartment of the Baghouse (except for a Baghouse compartment that, as part of the original design of the Baghouse when it was first constructed, is a spare compartment); (b) operate automatic control systems on each ESP to maximize PM collection efficiency; and (c) maintain power levels delivered to the ESPs, and where applicable, replace bags as needed on each Baghouse as needed to maximize collection efficiency.

103. TVA shall complete and submit to EPA for review and approval in accordance with Section V.J (Review and Approval of Submittals) of this Compliance Agreement, with copies of such submittal to the States and the Citizen Plaintiffs pursuant to Section VIII (Notices) of the Consent Decree, a PM emission control optimization study for each TVA System Unit except for (a) Colbert Unit 5, Paradise Units 1 and 2, and Widows Creek Unit 8, (b) those Units that TVA is required to Retire pursuant to Paragraphs 73 and 89, (c) those Units that TVA elects to Retire pursuant to Paragraphs 73 and 89, and (d) those Units at which TVA has installed and commenced Continuous Operation of a new PM Control Device. The PM emission control optimization study shall, for the range of fuels used by the Unit, recommend the best available

maintenance, repair, and operating practices to optimize the PM Control Device availability and performance in accordance with manufacturers' specifications, the operational design of the Unit, and good engineering practices. TVA shall retain a qualified contractor to assist in the performance and completion of each study. TVA shall perform each study and implement the EPA-approved recommendations in accordance with the following schedule:

Date	**Studies Completed, New PM Control Devices Identified To Be Installed, Or Units Elected To Be Retired Pursuant To Paragraphs 73 And 89**		**Recommendations Implemented, New PM Control Devices Installed, Or Units Retired Pursuant To Election As Required By Paragraphs 73 And 89**	
	Individual Year	Cumulative	Individual Year	Cumulative
12/31/2011	6	6	0	0
12/31/2012	8	14	1	1
12/31/2013	6	20	4	5
12/31/2014	6	26	10	15
12/31/2015	3	29	10	25
12/31/2016	4	33	8	33
12/31/2017	4	37	4	37
12/31/2018	0	37	0	37
12/31/2019	0	37	0	37

TVA shall submit each such PM emission control optimization study to EPA for review and approval (in consultation with the States and Citizen Plaintiffs) pursuant to Section V.J (Review and Approval of Submittals) at least nine (9) months before the date specified in the table in this Paragraph for TVA to implement the recommendations. TVA shall maintain each PM Control Device in accordance with the approved PM emission control optimization study or other alternative actions as approved by EPA (in consultation with the States and the Citizen Plaintiffs).

2. PM Emission Rates.

104. No later than the dates set forth in the table below, and continuing thereafter, TVA shall Continuously Operate the PM Control Devices at each Unit identified therein so that each Unit or Units served by a common stack achieve and maintain a PM Emission Rate of no greater than 0.030 lb/mmBTU as determined by stack testing:

Plant	**Unit**	**Date**
Allen	Units 1-3	December 31, 2018
Bull Run	Unit 1	Effective Date
Colbert	Unit 5	December 31, 2015
Gallatin	Units 1-4	December 31, 2017
Kingston	Units 1-9	Effective Date, subject to the exemption provided in Paragraph 89 for the Continuous Operation of the Wet FGDs

3. PM Emissions Monitoring.

a. PM Stack Tests.

105. Beginning in calendar year 2011, and continuing in each calendar year thereafter, TVA shall conduct a PM stack test for filterable PM at each TVA System Unit or Units served by a common stack that combust fossil fuels at any time in that calendar year.

106. Beginning in calendar year 2011, and continuing for three (3) consecutive calendar years thereafter, TVA shall conduct a PM stack test for condensable PM at each TVA System Unit or Units served by a common stack that combust fossil fuels at any time in that calendar year.

107. The annual stack test requirement imposed on each TVA System Unit by this Section may be satisfied by stack tests conducted by TVA as required by its permits from

Alabama, Kentucky, and Tennessee for any year that such stack tests are required under the permits, provided that reference methods and procedures for performing such stack tests are consistent with the requirements specified in this Compliance Agreement.

108. Filterable PM. The reference methods and procedures for performing PM stack tests for filterable PM and for determining compliance with the PM Emission Rate shall be the applicable reference methods and procedures specified in the relevant Clean Air Act permit for the plant. TVA shall calculate the PM Emission Rate from the stack test results in accordance with 40 C.F.R. § 60.8(f). The results of each PM stack test shall be submitted to EPA, the States, and the Citizen Plaintiffs pursuant to Section X (Notices) of this Compliance Agreement within forty-five (45) days of completion of each test.

109. Condensable PM. The reference methods and procedures for performing PM stack tests to monitor condensable PM shall be those specified in 40 C.F.R. Part 51, Appendix M, Method 202. TVA shall calculate the Emission Rate for condensable PM from the stack test results in accordance with 40 C.F.R. § 60.8(f). The results of each PM stack test shall be submitted to EPA, the States, and the Citizen Plaintiffs pursuant to Section X (Notices) of this Compliance Agreement within forty-five (45) days of completion of each test.

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

b. PM CEMS.

111. TVA shall install, correlate, maintain, and operate PM CEMS as specified below. Each PM CEMS shall comprise a continuous particle mass monitor measuring PM

concentration, directly or indirectly, on an hourly average basis and a diluent monitor used to convert the concentration to units of lb/mmBTU. The PM CEMS installed at each stack, or, at Kingston, installed at each flue within the stack, must be appropriate for the anticipated stack conditions. TVA shall maintain, in an electronic database, the hourly average emission values produced by each PM CEMS in lb/mmBTU. Except for periods of monitor malfunction, maintenance, or repair, TVA shall continuously operate the PM CEMS at all times when at least one Unit it serves is operating.

112. No later than twelve (12) months after the Effective Date of this Compliance Agreement, TVA shall submit to EPA for review and approval pursuant to Section V.J (Review and Approval of Submittals) of this Compliance Agreement, with copies of such submittal to the States and the Citizen Plaintiffs pursuant to Section VIII (Notices) of the Consent Decree, a plan for the installation and correlation of each PM CEMS and a proposed Quality Assurance/Quality Control ("QA/QC") protocol that shall be followed in correlating such PM CEMS. At TVA's option, and to the extent practicable, TVA may submit one plan and one QA/QC protocol that shall take into account Unit-specific measures, as needed, for the PM CEMS required by Paragraphs 111 and 113. In developing both the plan for installation and correlation of the PM CEMS and the QA/QC protocol, TVA shall use the criteria set forth in 40 C.F.R. Part 60, Appendix B, Performance Specification 11, and Appendix F, Procedure 2. Following approval by EPA (in consultation with the States and the Citizen Plaintiffs) of the plan(s) and protocol(s), TVA shall thereafter operate each PM CEMS in accordance with the approved plan(s) and QA/QC protocol(s).

113. No later than twelve (12) months after the date that EPA approves the plan for installation and correlation of the PM CEMS and the QA/QC protocol, TVA shall install, correlate, maintain and operate six (6) PM CEMS on stacks at the following Units: Paradise Unit 3, Bull Run Unit 1, Colbert Unit 5, Kingston Units 1-9 (one (1) PM CEMS on each flue), and Shawnee Units 1-5.

114. In the event that TVA elects to Retire a Unit scheduled to receive a PM CEMS or, with respect to Colbert Unit 5, elects the Remove from Service option, TVA shall locate a PM CEMS (either the same PM CEMS or a new PM CEMS) at an alternate Unit in the TVA System. TVA shall provide notice to EPA, the States, and the Citizen Plaintiffs pursuant to Section X (Notices) of the alternate Unit by no later than three (3) years prior to the date that the Unit specified in Paragraph 113 is Retired or Removed from Service. TVA shall comply with all the requirements of this Section for such PM CEMS. The deadline identified in Paragraph 112 shall be adjusted to twelve (12) months after TVA's notice pursuant to this Paragraph.

115. No later than ninety (90) days after TVA begins operation of the PM CEMS, TVA shall conduct tests of each PM CEMS to demonstrate compliance with the PM CEMS installation and correlation plan(s) and QA/QC protocol(s). Within forty-five (45) days of each such test, TVA shall submit the results to EPA, the States, and the Citizen Plaintiffs pursuant to Section X (Notices) of this Compliance Agreement.

116. When TVA submits the applications for amendments to its Title V Permits pursuant to Paragraph 164, those applications shall include a Compliance Assurance Monitoring ("CAM") plan, under 40 C.F.R. Part 64, for the PM Emission Rate specified in Paragraph 104.

The PM CEMS required by Paragraphs 111 and 113 may be used in that CAM plan for Bull Run Unit 1, Colbert Unit 5, and Kingston Units 1-9.

c. PM Reporting.

117. Within one hundred eighty (180) days after the date established by this Compliance Agreement for TVA to achieve and maintain a PM Emission Rate at any TVA System Unit, TVA shall conduct a stack performance test for PM that demonstrates compliance with the Emission Rate required by this Compliance Agreement. Within forty-five (45) days of the performance test, TVA shall submit the results of the performance test to EPA, the States, and the Citizen Plaintiffs pursuant to Section X (Notices) of this Compliance Agreement. TVA may use the annual stack test requirement established in Paragraph 105, above, to satisfy its obligation to conduct a performance test as required by this Paragraph.

118. Following the installation of each PM CEMS, TVA shall begin and continue to report, pursuant to Section V.I (Periodic Reporting), the data recorded by the PM CEMS, expressed in lb/mmBTU on a three-hour (3-hour) rolling average basis and a twenty-four-hour (24-hour) rolling average basis in electronic format to EPA, the States, and the Citizen Plaintiffs including identification of each 3-hour average and 24-hour average above the applicable PM Emission Rate for Bull Run Unit 1, Colbert Unit 5, and Kingston Units 1-9, as required by Paragraph 104.

E. PROHIBITION ON NETTING OR OFFSETS FROM REQUIRED CONTROLS

119. Emission reductions that result from actions to be taken by TVA after the Effective Date of this Compliance Agreement to comply with the requirements of this Compliance Agreement shall not be considered as creditable contemporaneous emission

decreases for the purpose of netting or offset under the Act's PSD and Nonattainment NSR programs (including any applicable SIP provisions).

120. 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 at a particular TVA System Unit that are greater than those required under this Compliance Agreement for that particular TVA System Unit. For purposes of this Paragraph, and except as otherwise provided in Paragraph 54, emission reductions achieved at a particular TVA System Unit are greater than those required under this Compliance Agreement only if they result from the actions described in Subparagraphs 120.a and/or 120.b, below:

a. controlling Shawnee Units 2, 3, 5, 6, 7, 8 and/or 9 to reduce emissions of NO_x and/or SO_2 beyond the requirements of Paragraphs 75 and 91 of this Compliance Agreement through a federally-enforceable emission limitation, provided that TVA is not otherwise required by the Act or the applicable SIP to control such Units to reduce emissions of NO_x and/or SO_2, or

b. for emission reductions of NO_x, except for Shawnee Unit 10, Retiring a TVA System Unit that does not have the Retire option in the Control Requirement column in the Table in Paragraph 73, except to the extent that TVA Retires such Unit as Additional MW pursuant to Paragraph 123.b, and provided that TVA is not otherwise required by the Act or the applicable SIP to Retire such Unit; and for emission reductions of SO_2, except for Shawnee Unit 10, Retiring a TVA System Unit that does not have the Retire option in the Control Requirement column in the Table in Paragraph 89, except to the extent that TVA Retires such Unit as Additional MW pursuant to Paragraph 123.b, and provided that TVA is not otherwise required by the Act or the applicable SIP to Retire such Unit.

121. Notwithstanding Paragraph 119, TVA may utilize emission reductions of NO_x, SO_2, VOCs, and PM resulting solely from Retiring up to two thousand seven hundred (2,700) MW from the TVA System, as creditable contemporaneous emission decreases for the purpose of obtaining netting credits for these four pollutants to construct and operate no more than a total of four thousand (4,000) MW of new combined cycle ("CC") combustion turbine electric generating units ("New CC Units") and simple cycle ("CT") turbine electric generating units ("New CT Units") (collectively referred to herein as "New CC/CT Units") to be located at the stationary source where a TVA System Unit is Retired, subject to the limitations described in this Paragraph and Subparagraphs. Of the total 4,000 MW specified herein, TVA shall not construct more than a total of two thousand (2,000) MW of CT capacity.

a. The emission reductions of NO_x, SO_2, VOC, and PM resulting from Retiring a TVA System Unit that TVA intends to utilize for netting purposes to avoid major NSR for such New CC/CT Unit must be contemporaneous and otherwise creditable within the meaning of the Act and the applicable SIP, and TVA must comply with, and is subject to, all requirements and criteria for creating contemporaneous creditable decreases as set forth in 40 C.F.R. § 52.21(b) and the applicable SIP, subject to the limitations of this Paragraph 121.

b. TVA must apply for, and obtain, minor NSR permits for the construction and operation of such New CC/CT Unit(s) from the relevant permitting authority. Such minor NSR permit must include federally-enforceable emission limitations that reflect either Best Available Control Technology ("BACT") or Lowest Achievable Emission Rate ("LAER"), as appropriate, depending upon the attainment classification for the relevant regulated pollutants for which TVA is utilizing emission reductions as provided in this Paragraph to net out of major new source

review and that will be emitted from such New CC/CT Unit(s) (including NO_x, SO_2, and PM regulated as primary criteria pollutants and NO_x, SO_2, and VOCs regulated as precursor pollutants to the formation of the criteria pollutants $PM_{2.5}$ and Ozone) in the area where such New CC/CT Units will be located. The relevant permitting authority where the New CC/CT Units will be constructed shall determine emission limitations for NO_x, SO_2, VOCs, PM, PM_{10} and $PM_{2.5}$ that reflect BACT or LAER, as appropriate, consistent with Sections 165(a)(4), 169(3), 171(3), and 173(a)(2) of the Act, 42 U.S.C. §§ 7475(a)(4), 7479(3), 7501(3), and 7503(a)(3); 40 C.F.R. §§ 52.21(b)(12) and 51.165(a)(1)(xiii); the applicable SIP; and relevant EPA guidance and/or interpretations pertaining to determining BACT and LAER, including EPA's "New Source Review Workshop Manual – Prevention of Significant Deterioration and Nonattainment Area Permitting" (Draft Oct. 1990). In no event shall the emission limitations determined by the relevant permitting authority for NO_x, SO_2, VOC, and $PM_{2.5}$ (filterable) be any less stringent than the emission limitations set forth in Appendix B to this Compliance Agreement. The emission limitations set forth in Appendix B serve solely as the minimum stringency for emission limitations that will be determined by the relevant permitting authority for such New CC/CT Units and shall not be presumed to be BACT or LAER. Although the permitting authority as part of the permitting action described in this Paragraph shall not determine BACT or LAER to be less stringent than the emission limitations set forth in Appendix B, nothing in this Compliance Agreement (including Appendix B) shall prevent the permitting authority from establishing more stringent emission limitations than those set forth in Appendix B. For purposes of the permitting action described in this Paragraph, TVA shall not assert that this Compliance Agreement (including Appendix B) supports imposing a BACT or

LAER emission limitation that is no more stringent than the emission limitations set forth in Appendix B.

c. For the minor NSR permitting action specified in Subparagraph 121.a, above, the relevant permitting authority shall comply with the public participation requirements in its SIP for major NSR permitting actions, including: Ala. Admin. Code r. 335-3-14-.01(7) for permitting actions in Alabama, 401 Ky. Admin. Regs. 52:100 for permitting actions in Kentucky, and Tenn. Comp. R. & Regs.1200-3-9-.01(4)(l) for permitting actions in Tennessee. TVA shall provide notice and a copy of its permit application to EPA, the States, and the Citizen Plaintiffs pursuant to Section X (Notices) concurrent with its permit application submission to the relevant permitting authority.

d. All emissions of NO_x and SO_2 from any New CC/CT Unit(s) where TVA has utilized netting credits in order to construct such New CC/CT Unit as provided in this Paragraph, shall be treated as emissions from a TVA System Unit solely for purposes of the System-Wide Annual Tonnage Limitations for NO_x and SO_2 and such emissions of NO_x and SO_2 from the New CC/CT Unit(s) are therefore subject to, and shall be included under, the System-Wide Annual Tonnage Limitations for NO_x and SO_2 for the relevant calendar year(s) as specified in the tables in Paragraphs 71 and 86.

e. Nothing in this Paragraph affects the Unit-specific schedule specified in the tables in Paragraphs 73 and 89 for each TVA System Unit.

122. For every emission reduction of NO_x and SO_2 that TVA utilizes as provided in Paragraph 121 to construct a New CC/CT Unit(s), such reduction shall not be available to generate Super-Compliance Allowances within the meaning of Paragraphs 82 and 98 in the

calendar year in which TVA utilizes such emission reductions and all calendar years thereafter. In the next periodic progress report required pursuant to Section V.I (Periodic Reporting), TVA shall report the amount of emission reductions of NO_x and the amount of emission reductions of SO_2 resulting from Retiring a TVA System Unit that TVA utilized as netting credits as provided in Paragraph 121 to construct a New CC/CT Unit(s).

123. Notwithstanding Paragraph 119, TVA may utilize emission reductions of Greenhouse Gases resulting solely from Retiring a TVA System Unit as creditable contemporaneous emission decreases for the purpose of obtaining netting credits for Greenhouse Gases to construct and operate no more than a total of four thousand (4,000) MW of New CC Units to be located at the stationary source where a TVA System Unit is Retired, subject to the limitations described in this Paragraph and Subparagraphs 123.a through 123.c, below.

a. The emission reductions of Greenhouse Gases resulting from Retiring a TVA System Unit that TVA intends to utilize for netting purposes to avoid major NSR for such New CC Unit must be contemporaneous and otherwise creditable within the meaning of the Clean Air Act and the applicable SIP, and TVA must comply with, and is subject to, all requirements and criteria for creating contemporaneous creditable decreases as set forth in 40 C.F.R. § 52.21(b) and the applicable SIP, subject to the limitations of this Paragraph.

b. For every one (1) MW of New CC Unit capacity that TVA proposes to construct and operate by utilizing Greenhouse Gas emission reductions to avoid major NSR for such New CC Unit, TVA shall Retire at least one (1) MW from the TVA System that is above and beyond the 2,728.8 MW that TVA is required to Retire pursuant to Paragraphs 73 and 89 (referred to herein as "Additional MW"). TVA shall Retire such Additional MW from the TVA System

either within one (1) year from the date the New CC Unit commences operation or by no later than the date set forth in the table in Paragraphs 73 and 89 for the TVA System Unit that TVA is Retiring pursuant to this Paragraph, whichever is sooner. Emission reductions resulting from Retiring such Additional MW are subject to Paragraph 119.

c. Greenhouse Gas emission reductions resulting from Retiring a TVA System Unit may only be available to TVA for netting purposes to avoid major NSR permitting requirements for Greenhouse Gases for the construction and operation of a New CC Unit if TVA satisfies the following requirements: (i) TVA must apply for a minor NSR permit described in Paragraph 121 for the construction and operation of such New CC Unit by no later than June 30, 2012, (ii) TVA must commence construction of the New CC Unit that is the subject of such minor NSR permit application by no later than January 1, 2015, and (iii) by no later than thirty (30) days after the date TVA commences construction of such New CC Unit, TVA must provide notice pursuant to Paragraphs 76 and 92 as to which TVA System Unit(s) TVA will Retire in order for TVA to Retire the requisite Additional MW.

124. Nothing in this Compliance Agreement shall prevent anyone, including EPA, the States, and the Citizen Plaintiffs from submitting comments during the public comment period specified in Subparagraph 121.b regarding the emission limitations developed by the permitting authority as required by Subparagraph 121.a, including comments regarding the stringency of the emission limitations prescribed in Appendix B, or taking any other lawfully permissible action to challenge any permitting authority's determination pursuant to Subparagraph 121.a or the minor NSR permitting action for such New CC/CT Units.

125. Nothing in this Compliance Agreement is intended to preclude the emission reductions generated under this Compliance Agreement from being considered by EPA or Alabama, Kentucky, or Tennessee for the purpose of attainment demonstrations submitted pursuant to § 110 of the Act, 42 U.S.C. § 7410, or in determining impacts on NAAQS, PSD increment, or air quality related values, including visibility, in a Class I area.

F. ENVIRONMENTAL MITIGATION PROJECTS

126. TVA shall implement the Environmental Mitigation Projects ("Projects") described in Appendix C to this Compliance Agreement, in compliance with the approved plans and schedules for such Projects and other terms of this Compliance Agreement. These Projects will result in a further reduction of NO_x, SO_2, and PM emissions, and additionally will have the collateral benefit of reducing Greenhouse Gases. In implementing the Projects described in Appendix C, TVA shall spend no less than $290 million in Project Dollars and pay no less than $60 million to the States to fund Projects described in Section III.F of the Consent Decree.

127. TVA shall implement the Projects described in Appendix C by no later than five (5) years from the date of plan approval, as specified in Appendix C.

128. TVA shall maintain, and present to the EPA upon request, all documents to substantiate the Project Dollars expended and shall provide these documents to EPA within thirty (30) days of a request by EPA for the documents.

129. All plans and reports prepared by TVA pursuant to the requirements of this Section of the Compliance Agreement and required to be submitted to EPA shall be publicly available from TVA without charge.

130. TVA shall certify, as part of each plan submitted to EPA for any Project, that TVA is not otherwise required by law to perform the Project described in the plan, that TVA is unaware of any other person who is required by law to perform the Project as of the Effective Date of this Compliance Agreement, and that TVA will not use any Project, or portion thereof, to satisfy any existing obligations as of the Effective Date of this Compliance Agreement that it may have under other applicable requirements of law, including any applicable renewable or energy efficiency portfolio standards.

131. TVA shall use good faith efforts to secure as much benefit as possible for the Project Dollars expended, consistent with the applicable requirements and limits of this Compliance Agreement. TVA shall describe the expected emissions reduced or avoided for all air pollutants, so that EPA can evaluate the benefits of the proposed projects as part of the plan approval process.

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

133. Beginning on the date of each plan submission required pursuant to Appendix C, and continuing until completion of each Project (including any applicable periods of demonstration or testing), TVA shall provide EPA with semi-annual reports detailing the progress of each Appendix C Project and the disbursement of funds pursuant to Section III.F of the Consent Decree.

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

G. CIVIL PENALTY

135. TVA shall pay a total of $10,000,000 in civil penalties as further described in this Section.

136. Pursuant to, and as specified in, Paragraph 91 of the Consent Agreement and Final Order in In re Tennessee Valley Auth., Docket No. CAA-04-2010-1528(b), TVA shall pay the sum of $8,000,000 in civil penalties to EPA.

137. Pursuant to, and as specified in, Paragraph 131 of the Consent Decree, TVA shall pay a total of $2,000,000 in civil penalties to Alabama, Kentucky, and Tennessee as follows: $1,000,000 to Tennessee, $500,000 to Alabama, and $500,000 to Kentucky.

H. RESOLUTION OF CLAIMS AGAINST TVA

1. Resolution of EPA's Claims.

138. Claims based on modifications occurring before the Date of Execution of this Compliance Agreement. This Compliance Agreement shall resolve all administrative claims of EPA against TVA, and, subject to the reservation in Paragraph 3, EPA covenants not to refer civil claims against TVA to the Department of Justice, arising from any modifications commenced at any TVA System Unit prior to the Date of Execution of this Compliance Agreement, except for claims based upon the regulated pollutant sulfuric acid mist, including but not limited to, those modifications alleged in Section IV of this Compliance Agreement under any or all of:

a. Sections 165 and 173 of Parts C and D of Subchapter I of the Act, 42 U.S.C. §§ 7475 and 7503, and the implementing PSD and Nonattainment NSR provisions of the relevant SIPs;

b. Section 111 of the Act, 42 U.S.C. §§ 7411, and 40 C.F.R. §§ 60.14 and 60.15;

c. Sections 502(a) and 504(a) of the Act, 42 U.S.C. §§ 7661a(a) and 7661c(a), but only to the extent that such claims are based on TVA's failure to obtain an operating permit that reflects applicable requirements imposed under the PSD and Nonattainment NSR provisions of Subchapter I or Section 111 of the Act; and

d. The federally approved and enforceable minor NSR programs of Alabama, Kentucky, and Tennessee.

The claims resolved for purposes of this Paragraph under Parts C or D of Subchapter I of the Act shall not include claims based upon Greenhouse Gases.

139. Claims based on modifications occurring after the Date of Execution of this Compliance Agreement. This Compliance Agreement also shall resolve all administrative claims of EPA against TVA, and, subject to the reservation in Paragraph 3, EPA covenants not to refer civil claims against TVA to the Department of Justice, that arise from a modification commenced before June 30, 2019, for pollutants regulated under Parts C or D of Subchapter I of the Act and under regulations promulgated thereunder as of the Date of Execution of this Compliance Agreement, except for sulfuric acid mist and PM as provided below, and:

a. where such modification is commenced at any TVA System Unit after the Date of Execution of this Compliance Agreement; or

b. where such modification is one that this Compliance Agreement expressly directs TVA to undertake.

This Compliance Agreement does not resolve any such claims based upon modifications for sulfuric acid mist at any TVA System Unit or for PM at any TVA System Unit that is not subject to a PM Emission Rate pursuant to Paragraph 104. The claims resolved for purposes of this Paragraph under Parts C or D of Subchapter I of the Act shall not include claims based upon Greenhouse Gases.

140. Reopeners. The resolution of EPA's claims against TVA, as provided by this Subsection 1, is subject to the provisions of Subsection 2 of this Section.

2. Pursuit by EPA of Claims Otherwise Resolved by Subsection 1.

141. Bases for Pursuing Resolved Claims for the TVA System. If TVA violates a System-Wide Annual Tonnage Limitation required pursuant to Paragraph 71 (as adjusted, as applicable, by Paragraph 72) or Paragraph 86 (as adjusted, as applicable, by Paragraph 87), or operates a Unit more than ninety (90) days past a date established in this Compliance Agreement without completing the required installation, upgrade, Repowering, Retirement, or commencing Continuous Operation of any pollution control device required pursuant to Paragraphs 73 or 89, or operates 2 Units at the John Sevier plant and/or Colbert Units 1, 2, 3, 4, and/or 5 ninety (90) days past the date established in this Compliance Agreement for such Units to be Removed from Service, then EPA may pursue any claim at any TVA System Unit that is otherwise resolved under Subsection 1 (Resolution of EPA's Claims), subject to a and b, below.

a. For any claims based on modifications undertaken at an Other Unit (i.e., any Unit at the Shawnee Plant that is not an Improved Unit for the pollutant in question), claims may be pursued only where the modification(s) on which such claim is based was commenced within the five (5) years preceding the violation or failure specified in this Paragraph.

b. For any claims based on modifications undertaken at an Improved Unit, claims may be pursued only where the modification(s) on which such claim is based was commenced (i) after the Date of Execution this Compliance Agreement and (ii) within the five (5) years preceding the violation or failure specified in this Paragraph.

142. Additional Bases for Pursuing Resolved Claims for Modifications at an Improved Unit. Solely with respect to an Improved Unit, EPA may also pursue claims arising from a modification (or collection of modifications) at an Improved Unit that has otherwise been

resolved under Subsection 1 (Resolution of EPA's Claims), if the modification (or collection of modifications) at the Improved Unit on which such claims are based (a) was commenced after the Date of Execution of this Compliance Agreement, and (b) individually (or collectively) increased the maximum hourly emission rate of that Unit for NO_x and/or SO_2 (as measured by 40 C.F.R. §§ 60.14(b) and (h)) by more than ten percent (10%).

143. Additional bases for pursuing resolved claims for modifications at Other Units. Solely with respect to Other Units, EPA may also pursue claims arising from a modification (or collection of modifications) at an Other Unit that has otherwise been resolved under Subsection 1 (Resolution of EPA's Claims), if the modification (or collection of modifications) at the Other Unit on which the claim is based was commenced within the five (5) years preceding any of the following events:

a. a modification (or collection of modifications) at such Other Unit commenced after the Date of Execution of this Compliance Agreement increases the maximum hourly emission rate for such Other Unit for the relevant pollutant (NO_x or SO_2), as measured by 40 C.F.R. § 60.14(b) and (h);

b. the aggregate of all Capital Expenditures made at such Other Unit exceed $150/KW on the Unit's Boiler Island (based on the generating capacities identified in Paragraph 67) during the period from the Date of Execution of this Compliance Agreement through December 31, 2014, and the period from January 1, 2015 through December 31, 2019. (Capital Expenditures shall be measured in calendar year 2009 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 Execution of this Compliance Agreement results in an emissions increase of NO_x and/or SO_2 at such Other Unit, and such increase (i) presents, by itself, or in combination with other emissions or sources, "an imminent and substantial endangerment" within the meaning of Section 303 of the Act, 42 U.S.C. §7603; (ii) causes or contributes to violation of a NAAQS in any Air Quality Control Area that is in attainment with that NAAQS; (iii) causes or contributes to violation of a PSD increment; and/or (iv) causes or contributes to any adverse impact on any formally-recognized air quality related values in any Class I area. The introduction of any new or changed NAAQS shall not, standing alone, provide the showing needed under Subparagraphs (c)(ii) or (c)(iii) to pursue any claim for a modification at an Other Unit resolved under Subsection 1 of this Section.

I. PERIODIC REPORTING

144. Beginning six (6) months after the Effective Date of this Compliance Agreement and continuing annually on April 30 each year thereafter until conditional termination of enforcement through this Compliance Agreement as provided in Paragraph 213, and in addition to any other express reporting requirement in this Compliance Agreement, TVA shall submit to EPA, the States, and the Citizen Plaintiffs a progress report in compliance with Appendix A.

145. In any periodic progress report submitted pursuant to this Section, TVA may incorporate by reference information previously submitted under its Title IV and/or Title V permitting requirements, provided that TVA attaches the Title IV and/or Title V permit report, or the relevant portion thereof, and provides a specific reference to the provisions of the Title IV

and/or Title V permit report that are responsive to the information required in the periodic progress report.

146. Other express reporting requirements. In addition to the annual progress reports required pursuant to Paragraph 144 and Appendix A, TVA shall submit to EPA, the States, and the Citizen Plaintiffs the information otherwise required by this Compliance Agreement in the manner and by the dates set forth herein, including but not limited to, the information required by Paragraphs 76, 77, 88, 92, 93, 108, 109, 114, 115, 117, 147, 156, 167, and 192 and Subparagraph 121.c.

147. In addition to the progress reports required pursuant to this Section, TVA shall provide a written report to EPA, the States, and the Citizen Plaintiffs of any violation of the requirements of this Compliance Agreement within fifteen (15) days of when TVA knew or should have known of any such violation. In this report, TVA shall explain the cause or causes of the violation and all measures taken or to be taken by TVA to prevent such violations in the future and measures taken or to be taken to mitigate the environmental effects of such violation, if any.

148. Each report shall be signed by TVA's Vice President of Environmental Permitting and Compliance or his or her equivalent or designee of at least the rank of Vice President, and shall contain the following certification:

> This information was prepared either by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my evaluation, or the direction and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, I hereby certify under penalty of law that, to the best of my knowledge and belief, this information is true, accurate,

and complete. I understand that there are significant penalties for submitting false, inaccurate, or incomplete information to EPA.

J. REVIEW AND APPROVAL OF SUBMITTALS

149. Whenever a plan, report, or other submission required by this Compliance Agreement is required to be submitted to EPA for review or approval pursuant to this Compliance Agreement, EPA (in consultation with the States and the Citizen Plaintiffs) may approve the submittal or decline to approve it and provide written comments explaining the basis for declining such approval. Within sixty (60) days of receiving written comments from EPA, TVA shall either (a) revise the submittal consistent with the written comments and provide the revised submittal to EPA with copies to the States and the Citizen Plaintiffs pursuant to Section X (Notices) of this Compliance Agreement; or (b) submit the matter for dispute resolution pursuant to Section VIII (Dispute Resolution) of this Compliance Agreement.

150. Upon receipt of EPA's final approval of the submittal, or upon completion of dispute resolution pursuant to Section VIII (Dispute Resolution) of this Compliance Agreement, and, if applicable, dispute resolution under Section VI (Dispute Resolution) of the Consent Decree as provided by Section IV (Coordination of Oversight and Enforcement) of the Consent Decree, TVA shall implement the approved submittal in accordance with the schedule specified therein, or if subject to dispute resolution pursuant to Section VI (Dispute Resolution) of this Consent Decree as provided by Section IV (Coordination of Oversight and Enforcement) of the Consent Decree, a schedule established by the Court.

K. STIPULATED PENALTIES

151. For any failure by TVA to comply with the terms of this Compliance Agreement, and subject to the provisions of Sections VII (Force Majeure) and VIII (Dispute Resolution) of this Compliance Agreement, and Section IV (Coordination of Oversight and Enforcement) of the Consent Decree, TVA shall pay, within thirty (30) days after receipt of written demand to TVA by EPA, the following stipulated penalties:

Compliance Agreement Violation	**Stipulated Penalty**
a. Failure to pay the civil penalty as specified in Section V.G (Civil Penalty) of this Compliance Agreement	$10,000 per day
b. Failure to comply with any applicable PM Emission Rate where the violation is less than five percent (5%) in excess of the limits set forth in this Compliance Agreement	$2,500 per day per violation
c. Failure to comply with any applicable PM Emission Rate where the violation is equal to or greater than five percent (5%) but less than ten percent (10%) in excess of the limits set forth in this Compliance Agreement	$5,000 per day per violation
d. Failure to comply with any applicable PM Emission Rate where the violation is equal to or greater than ten percent (10%) in excess of the limits set forth in this Compliance Agreement	$10,000 per day per violation
e. Failure to comply with an applicable System-Wide Annual Tonnage Limitation for SO_2 set forth in this Compliance Agreement	$5,000 per ton for the first 1,000 tons, and $10,000 per ton for each additional ton above 1,000 tons, plus the surrender of SO_2 Allowances in an amount equal to two (2) times the number of tons by which the limitation was exceeded.

Compliance Agreement Violation	**Stipulated Penalty**
f. Failure to Remove from Service as required by Paragraphs 73 and 89 of this Compliance Agreement any one or more of the following Units: the two (2) Units at the John Sevier plant that TVA indicated pursuant to Paragraphs 73 and 89 that it will Remove from Service and Colbert Units 1-5	$10,000 per day per violation during the first thirty (30) days, $37,500 per day per violation thereafter
g. Failure to comply with an applicable System-Wide Annual Tonnage Limitation for NO_x set forth in this Compliance Agreement	$5,000 per ton for the first 1,000 tons, and $10,000 per ton for each additional ton above 1,000 tons, plus the surrender of annual NO_x Allowances in an amount equal to two (2) times the number of tons by which the limitation was exceeded.
h. Failure to comply with the requirements for NO_x or SO_2 in Paragraphs 75 or 91 of this Compliance Agreement	$2,500 per day per violation
i. Failure to provide notice as required by Paragraphs 76, 77, 88, 92, and/or 93 of this Compliance Agreement	$1,000 per day for the first fifteen (15) days, $15,000 per day for each day thereafter
j. Failure to install, commence operation of, and/or Continuously Operate a pollution control technology as required by Paragraphs 73, 89, and/or 102 of this Compliance Agreement	$10,000 per day per violation during the first thirty (30) days, $37,500 per day per violation thereafter
k. Failure to Retire or Repower a Unit as required by Paragraphs 73 and 89 of this Compliance Agreement	$10,000 per day per violation during the first thirty (30) days, $37,500 per day per violation thereafter
l. Failure to comply with the PM optimization requirements of Paragraph 103 of this Compliance Agreement	$2,500 per day per violation during the first thirty (30) days, $7,500 per day per violation thereafter
m. Failure to install and/or operate CEMS as required under this Compliance Agreement	$1,000 per day per violation

Compliance Agreement Violation	**Stipulated Penalty**
n. Failure to conduct stack tests for PM as required under this Compliance Agreement	$1,000 per day per violation
o. Failure to apply for any permit required under this Compliance Agreement	$1,000 per day per violation
p. Failure to timely submit, modify, and/or implement, as approved, the reports, plans, studies, analyses, protocols, and/or other submittals required by this Compliance Agreement	$750 per day per violation during the first ten (10) days, $1,000 per day per violation thereafter
q. Using, selling, banking, trading, or transferring SO_2 Allowances except as permitted under this Compliance Agreement	The surrender of SO_2 Allowances in an amount equal to four (4) times the number of SO_2 Allowances used, sold, banked, traded, or transferred in violation of this Compliance Agreement
r. Failure to surrender SO_2 Allowances as required under this Compliance Agreement	(a) $37,500 per day plus (b) $1,000 per allowance not surrendered
s. Using, selling, banking, trading, or transferring NO_x Allowances except as permitted under this Compliance Agreement	The surrender of NO_x Allowances in an amount equal to four (4) times the number of NO_x Allowances used, sold, banked, traded, or transferred in violation of this Compliance Agreement
t. Failure to surrender NO_x Allowances as required under this Compliance Agreement	(a) $37,500 per day plus (b) $1,000 per allowance not surrendered
u. Using emission reductions from Retiring a TVA System Unit except as provided in Paragraphs 119 and 120 of this Compliance Agreement	$2,500 per day per violation during the first 30 days, $10,000 per day per violation thereafter
v. Failing to comply with the requirements of Paragraph 121 of this Compliance Agreement if TVA uses emission reductions from Retiring a TVA System Unit to construct a New CC/CT Unit	$2,500 per day per violation during the first thirty (30) days, $10,000 per day per violation thereafter

Compliance Agreement Violation	**Stipulated Penalty**
w. Failing to comply with the requirements of Paragraph 123 of this Compliance Agreement if TVA uses emission reductions in Greenhouse Gases to construct a New CC Unit	$2,500 per day per violation during the first thirty (30) days, $10,000 per day per violation thereafter
x. Failure to implement any of the Environmental Mitigation Projects in compliance with Section V.F (Environmental Mitigation Projects) of this Compliance Agreement	$5,000 per day for the first thirty (30) days, $10,000 per day for each day thereafter
y. Any other violation of this Compliance Agreement	$1,000 per day per violation

152. All stipulated penalties shall begin to accrue on the day after the performance is due or on the day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases, whichever is applicable. Nothing in this Compliance Agreement shall prevent the simultaneous accrual of separate stipulated penalties for separate violations of this Compliance Agreement.

153. TVA shall pay all stipulated penalties within thirty (30) days of receipt of written demand to TVA from EPA, and shall continue to make such payments every thirty (30) days thereafter until the violation(s) no longer continues, unless TVA elects within fifteen (15) business days of receipt of written demand to TVA from EPA to dispute the accrual of stipulated penalties in accordance with the provisions in Section VIII (Dispute Resolution) of this Compliance Agreement.

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

a. If the dispute is resolved by agreement through the Negotiation Period of Paragraph 182 of this Compliance Agreement, accrued stipulated penalties agreed or determined to be owing, together with accrued interest, shall be paid within thirty (30) days of the effective date of the agreement;

b. If the dispute is resolved by the Region 4 Air Director pursuant to Paragraph 182 and the Region 4 Air Director issues a decision in which EPA prevails in whole or in part, TVA shall, within sixty (60) days of receipt of the decision, pay all accrued stipulated penalties determined to be owing, together with interest accrued on such penalties determined to be owing.

155. Notwithstanding any other provision of this Compliance Agreement, the accrued stipulated penalties agreed to by EPA and TVA, or determined through Dispute Resolution, to be owing may be less than the stipulated penalty amounts set forth in Paragraph 151.

156. Monetary stipulated penalties due and owing to EPA shall be paid by Electronic Funds Transfer ("EFT") in accordance with current EFT procedures, referencing Docket No. CAA-04-2010-1760. The costs of such EFT shall be TVA's responsibility. Payment shall be made in accordance with instructions provided to TVA by EPA. Any funds received after 2:00 p.m. EST or EDT, as appropriate, shall be credited on the next business day. At the time of payment, TVA shall provide notice of payment to EPA, referencing all relevant case names and case numbers in accordance with Section X (Notices) of this Compliance Agreement. Monetary stipulated penalties due and owing to a State shall be paid in the manner set forth in the Consent Decree for the relevant State. All SO_2 and NO_x Allowance surrender stipulated penalties shall

comply with the allowance surrender procedures set forth in Paragraphs 84 (for NO_x) and 100 (for SO_2).

157. Should TVA fail to pay a stipulated penalty, EPA shall be entitled to collect interest on such stipulated penalties, as provided for in 31 U.S.C. § 3717.

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

159. EPA shall share the payment of a stipulated penalty with Alabama, Kentucky, and Tennessee where the violation giving rise to payment of a stipulated penalty is also a violation of a Parallel Provision of the Consent Decree. EPA shall instruct TVA in the written demand issued pursuant to Paragraph 151 as to the amount to be paid to EPA and the amount to be paid to the relevant State(s). Where the violation of a Parallel Provision is facility specific, payment of any stipulated penalty amount shall be made 50% to EPA and 50% to the State where such facility is located. Where a violation of a Parallel Provision is not facility specific, payment of any stipulated penalty amount shall be made as follows: 50% to EPA and 50% allocated equally among Alabama, Kentucky, and Tennessee.

L. PERMITS

160. Unless expressly stated otherwise in this Compliance Agreement, in any instance where otherwise applicable law or this Compliance Agreement requires TVA to secure a permit

to authorize construction or operation of any device, including all construction and operating permits required under state law, TVA shall make such application in a timely manner.

161. Notwithstanding Paragraph 160, nothing in this Compliance Agreement shall be construed to require TVA to apply for or obtain a PSD or Nonattainment NSR permit for physical changes in, or changes in the method of operation of, any TVA System Unit that would give rise to claims resolved by Paragraphs 138 or 139, subject to Paragraphs 140 through 143.

162. When permits or permit applications are required pursuant to Paragraphs 160, 164, 165, and 168, TVA shall complete and submit applications for such permits to Alabama, Kentucky, and Tennessee, whichever is appropriate, to allow sufficient time for all legally required processing and review of the permit request, including requests for additional information by such States. Any failure by TVA to submit a timely permit application for TVA System Units shall bar any use by TVA of Section VII (Force Majeure) of this Compliance Agreement, where a Force Majeure claim is based on permitting delays.

163. Notwithstanding the reference to Title V permits in this Compliance Agreement, the enforcement of such permits shall be in accordance with their own terms and the Act and its implementing regulations, including the federally approved Alabama, Kentucky, and Tennessee Title V programs. The Title V permit shall not be enforceable under this Compliance Agreement, although any term or limit established by or under this Compliance Agreement shall be enforceable under this Compliance Agreement regardless of whether such term has or will become part of a Title V permit, subject to the terms of Section XVI (Conditional Termination of Enforcement Under Compliance Agreement) of this Compliance Agreement.

164. Within three (3) years from the Effective Date of this Compliance Agreement, unless otherwise specified in this Paragraph, and in accordance with federal and/or state requirements for modifying or renewing a Title V permit, TVA shall amend any applicable Title V permit application, or apply for amendments to its Title V permits, to include a schedule for all system-wide, Unit-specific, and plant-specific performance, operational, maintenance, and control technology requirements established by this Compliance Agreement including, but not limited to, emission rates, installation and/or Continuous Operation of SCRs and/or FGDs, tonnage limitations, and the requirements pertaining to the surrender of NO_x and SO_2 Allowances. For Units in Paragraphs 73 and 89 with two or more methods specified in the Control Requirement column and that do not have a Remove from Service option, TVA shall apply to modify, renew, or obtain any applicable Title V permit as required by this Paragraph within twelve (12) months of making an election as to the method TVA will employ for the Unit. For Units with the Remove from Service option in the Control Requirement column in Paragraphs 73 and 89, TVA shall apply to modify, renew, or obtain any applicable Title V permit as required by this Paragraph within twelve (12) months of electing to either install and operate FGD(s) and SCR(s), Repower to Renewable Biomass, or Retire.

165. By no later than one (1) year after the date specified in Paragraphs 73 and 89 for the Control Requirement for each Unit, TVA shall (a) apply to include the requirements and limitations enumerated in this Compliance Agreement into federally-enforceable permits such that the requirements and limitations of this Compliance Agreement become and remain "applicable requirements" as that term is defined in 40 C.F.R. § 70.2 and/or (b) request site-specific amendments to the applicable SIPs for Alabama and Tennessee (but not for Kentucky) to

reflect all new requirements applicable to each Unit and at each plant in the TVA System. For purposes of this Compliance Agreement, the federally enforceable permit(s) issued by Kentucky must be issued by Kentucky under its authority under its SIP to issue permits and not solely under Kentucky's authority to issue permits pursuant to its Title V program.

166. Prior to conditional termination of enforcement through this Compliance Agreement, TVA shall apply for and obtain enforceable provisions in its Title V permits for the TVA System that incorporate (a) any Unit-specific requirements and limitations of this Compliance Agreement, such as performance, operational, maintenance, and control technology requirements, (b) the requirement to Surrender NO_x and SO_2 Allowances, and (c) the System-Wide Annual Tonnage Limitations.

167. TVA shall provide EPA, the States, and the Citizen Plaintiffs with a copy of each application for any permit required pursuant to this Section, including any federally enforceable permit or Title V permit or modification, and any site-specific SIP amendment, as well as a copy of any permit or SIP amendment proposed as a result of such application, to allow for timely participation in any public comment opportunity.

168. In the event that EPA promulgates a final rule containing revisions to the Effluent Limitations Guidelines for the Steam Electric Power Generating point source category, by no later than twelve (12) months after the date EPA publishes the final rule in the Federal Register (unless additional time is required for studies or data collection mandated by the final rule), TVA shall submit applications to the relevant permitting authority to obtain National Pollutant Discharge Elimination System ("NPDES") permit renewals (in the case of expiring permits); permit renewal modifications (in the case of already submitted permit renewal applications); or

permit modification requests (in the case of existing, non-expired permits) to include legally-applicable requirements of the revised Effluent Limitations Guidelines relating to wastewaters from Flue Gas Desulfurization Systems in each of its NPDES permits for the TVA System Units that are subject to the revised Effluent Limitation Guidelines and are equipped with a Flue Gas Desulfurization System. TVA shall include all the relevant information necessary for the permitting authority to expeditiously incorporate the Effluent Limitation Guideline requirements into each of TVA's NPDES permits, and shall promptly respond to any additional requests for information from the permitting authority.

169. If TVA proposes to sell or transfer to an entity unrelated to TVA ("Third Party") part or all of TVA's operational or ownership interest in a TVA System Unit, TVA shall comply with the requirements of Section XI (Sales or Transfers of Operational or Ownership Interests) with regard to that Unit prior to any such sale or transfer.

VI. COORDINATION OF OVERSIGHT AND ENFORCEMENT

170. EPA shall be the lead agency, in consultation with the States and the Citizen Plaintiffs, regarding TVA's implementation of, and compliance with, the Parallel Provisions of this Compliance Agreement and the Consent Decree as described in Section IV (Coordination of Oversight and Enforcement) of the Consent Decree.

VII. FORCE MAJEURE

171. For purposes of this Compliance Agreement, a "Force Majeure Event" shall mean an event that has been or will be caused by circumstances beyond the control of TVA, its contractors, or any entity controlled by TVA that delays compliance with any provision of this Compliance Agreement or otherwise causes a violation of any provision of this Compliance

Agreement despite TVA's best efforts to fulfill the obligation. "Best efforts to fulfill the obligation" include using the 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 any adverse environmental effect of the violation is minimized to the greatest extent possible.

172. Notice of Force Majeure Events. If any event occurs or has occurred that may delay compliance with or otherwise cause a violation of any obligation under this Compliance Agreement, as to which TVA intends to assert a claim of Force Majeure, TVA shall notify EPA, the States, and the Citizen Plaintiffs in writing as soon as practicable, but in no event later than twenty-one (21) business days following the date TVA 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, TVA shall reference this Paragraph of this Compliance Agreement and describe the anticipated length of time that the delay or violation may persist, the cause or causes of the delay or violation, all measures taken or to be taken by TVA to prevent or minimize the delay and any adverse environmental effect of the violation, the schedule by which TVA proposes to implement those measures, and TVA's rationale for attributing a delay or violation to a Force Majeure Event. TVA shall adopt all reasonable measures to avoid or minimize such delays or violations. TVA shall be deemed to know of any circumstance which TVA, its contractors, or any entity controlled by TVA knew or should have known.

173. Failure to Give Notice. If TVA fails to comply with the notice requirements of this Section, EPA (in consultation with the States and the Citizen Plaintiffs) may void TVA's

claim for Force Majeure as to the specific event for which TVA has failed to comply with such notice requirement.

174. EPA's Response. EPA shall notify TVA in writing regarding TVA's claim of Force Majeure as soon as reasonably practicable. If EPA, after consultation with the States and the Citizen Plaintiffs, agrees that a delay in performance has been or will be caused by a Force Majeure Event, EPA and TVA 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. In such circumstances, an appropriate modification shall be made pursuant to Section XII (Modification) of this Compliance Agreement.

175. Disagreement. If EPA, after consultation with the States and the Citizen Plaintiffs, does not accept TVA's claim of Force Majeure, or if EPA and TVA cannot agree on the length of the delay actually caused by the Force Majeure Event, the matter shall be resolved in accordance with Section VIII (Dispute Resolution) of this Compliance Agreement.

176. Burden of Proof. In any dispute regarding Force Majeure, TVA shall bear the burden of proving that any delay in performance or any other violation of any requirement of this Compliance Agreement was caused by or will be caused by a Force Majeure Event. TVA shall also bear the burden of proving that TVA gave the notice required by this Section and the burden of proving the anticipated duration and extent of any delay(s) attributable to a Force Majeure Event. An extension of one compliance date based on a particular event may, but will not necessarily, result in an extension of a subsequent compliance date.

177. Events Excluded. Unanticipated or increased costs or expenses associated with the performance of TVA's obligations under this Compliance Agreement shall not constitute a Force Majeure Event.

178. Potential Force Majeure Events. Depending upon the circumstances related to an event and TVA'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, other than by TVA, orders by a government official, government agency, other regulatory authority, or a regional transmission organization, acting under and authorized by applicable law, that directs TVA to supply electricity in response to a system-wide (state-wide or regional) emergency. Depending upon the circumstances and TVA's response to such circumstances, failure of a permitting authority to issue a necessary permit in a timely fashion may constitute a Force Majeure Event where the failure of the permitting authority to act is beyond the control of TVA and TVA has taken all steps available to it to obtain the necessary permit, including, but not limited to submitting a complete permit application; responding to requests for additional information by the permitting authority in a timely fashion; and accepting lawful permit terms and conditions after expeditiously exhausting any legal rights to appeal terms and conditions imposed by the permitting authority.

179. As part of the resolution of any matter by the Region 4 Air Director under Section VIII (Dispute Resolution) regarding a claim of Force Majeure, EPA (in consultation with the States and the Citizen Plaintiffs) and TVA by agreement, or the Region 4 Air Director as part of

Dispute Resolution, may in appropriate circumstances extend or modify the schedule for completion of work under this Compliance Agreement to account for the delay in the work that occurred as a result of any delay agreed to by EPA or as decided by the Region 4 Air Director. TVA shall be liable for stipulated penalties if applicable for its failure thereafter to complete the work in accordance with the extended or modified schedule (provided that TVA shall not be precluded from making a further claim of Force Majeure with regard to meeting any such extended or modified schedule).

VIII. DISPUTE RESOLUTION

180. If a dispute arises under this Compliance Agreement, the procedures of this Section VIII (Dispute Resolution) shall apply. The Parties shall make reasonable efforts to resolve disputes informally, at the level of TVA's Vice President, Environmental Permits and Compliance and the EPA Region 4 Chief of Air & EPCRA Enforcement Branch.

181. If TVA objects to any EPA action or determination taken pursuant to this Compliance Agreement, including any EPA disapproval, modification, or other decision, TVA shall notify EPA in writing of its objections (with copies to the States and the Citizen Plaintiffs), and the basis thereof, within fifteen (15) business days of such action. Such notice shall set forth the specific points of the dispute, the position which TVA asserts should be adopted as consistent with the requirements of this Compliance Agreement, the basis for TVA's position, and any matters that it considers necessary for EPA's determination. For purposes of this Compliance Agreement, EPA actions, orders or determinations will include those actions taken by or on behalf of EPA or any of its employees, agents, or designees.

182. EPA (in consultation with the States and the Citizen Plaintiffs) and TVA shall have an additional fifteen (15) days after receipt by EPA of the notification of objection (Negotiation Period), during which time representatives of EPA and TVA may confer in person or by telephone to resolve any disagreement. If an agreement is reached during the Negotiation Period, the resolution shall be in writing, signed by an authorized representative of both Parties. Such agreement shall be incorporated into and become an enforceable part of this Compliance Agreement. The Negotiation Period may be extended at the sole discretion of EPA, although such extensions shall not be unreasonably withheld. EPA's decision regarding an extension of the Negotiation Period shall not constitute an EPA action subject to Dispute Resolution.

183. If the Parties are unable to reach an agreement within the Negotiation Period, the dispute shall be elevated to the Region 4 Air Director and TVA's Environmental Executive. The Region 4 Air Director and TVA's Environmental Executive shall have an additional fourteen (14) days to resolve the dispute and issue a written decision signed by both Parties. If the Region 4 Air Director and TVA's Environmental Executive cannot reach a mutual agreement within the 14-day period, the Region 4 Air Director will issue a written decision on the dispute to TVA that provides the basis for his or her decision. This decision shall be incorporated into and become an enforceable part of this Compliance Agreement. TVA's obligations under this Compliance Agreement shall not be tolled by submission of any objections for dispute resolution or by any other procedure under this Section.

184. Following resolution of the dispute, as provided by this Section, TVA shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or in accordance with EPA's decision.

IX. INFORMATION COLLECTION AND RETENTION

185. Any authorized representative of EPA, including its attorneys, contractors, and consultants, upon presentation of credentials, shall have a right of entry upon the premises of any facility in the TVA System at any reasonable time for the purpose of:

a. monitoring the progress of activities required under this Compliance Agreement;

b. verifying any data or information submitted to EPA in accordance with the terms of this Compliance Agreement;

c. obtaining samples and, upon request, splits of any samples taken by TVA or its representatives, contractors, or consultants; and

d. assessing TVA's compliance with this Compliance Agreement.

186. TVA 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 and/or control, and that directly relate to TVA's performance of its obligations under this Compliance Agreement until six (6) years following completion of performance of such obligations. This record retention requirement shall apply regardless of any TVA document retention policy to the contrary.

187. All information and documents submitted by TVA pursuant to this Compliance Agreement 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) TVA claims and substantiates in accordance with 40 C.F.R. Part 2 that the information and documents contain confidential business information.

188. Nothing in this Compliance Agreement shall limit the authority of EPA or Alabama, Kentucky, and Tennessee to conduct tests and inspections at TVA's facilities under Section 114 of the Act, 42 U.S.C. § 7414, or any other applicable federal or state laws, regulations or permits.

X. NOTICES

189. Unless otherwise provided herein, whenever notifications, submissions, and/or communications are required by this Compliance Agreement, they shall be made in writing and addressed as follows:

As to EPA:

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

or

(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

Director
Air, Pesticides and Toxics Management Division
U.S. EPA- Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW

Atlanta, GA 30303-8960

As to Alabama:

Chief, Air Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, AL 36110-2059

As to Kentucky:

Director
Division for Air Quality
Energy and Environment Cabinet
200 Fair Oaks Lane
Frankfort, KY 40601

As to North Carolina:

Director
NCDENR, Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

Senior Deputy Attorney General
Environmental Division
North Carolina Department of Justice
P.O. Box 629 (114 W. Edenton Street, Room 306A)
Raleigh, NC 27602-0629

As to Tennessee:

Division Director/Technical Secretary
Tennessee Department of Environment & Conservation
Air Pollution Control Division
401 Church Street
L&C Annex, 9th Floor
Nashville, TN 37243-1548

As to the Citizen Plaintiffs:

George E. Hays
Attorney at Law

236 West Portal Avenue #110
San Francisco, CA 94127
Office: 415/566-5414 Fax: 415/731-1609
e-mail: georgehays@mindspring.com

William J. Moore, III
1648 Osceola Street
Jacksonville, FL 32204
(904) 685-2172 (phone)
(904) 685-2175 (fax)
wmoore@wjmlaw.net

As to TVA:

Vice President, Environmental Permitting and Compliance
Tennessee Valley Authority
1101 Market Street
Chattanooga, TN 37402

and

Assistant General Counsel, Environment
Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville, TN 37902

190. All notifications, communications or submissions made pursuant to this Section shall be sent either by (a) overnight mail or overnight delivery service, or (b) certified or registered mail, return receipt requested. In addition to the foregoing, notification may also be made through electronic mail. All notifications, communications, and transmissions that are properly addressed and prepaid and are (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.

191. EPA, TVA, the States, and the Citizen Plaintiffs may change either the notice recipient or the address for providing notices to it by serving all others with a notice setting forth such new notice recipient or address.

XI. SALES OR TRANSFERS OF OPERATIONAL OR OWNERSHIP INTERESTS

192. If TVA proposes to sell or transfer an Operational or Ownership Interest to an entity unrelated to TVA ("Third Party"), TVA shall advise the Third Party in writing of the existence of this Compliance Agreement prior to such sale or transfer, and shall send a copy of such written notification to EPA, the States, and the Citizen Plaintiffs pursuant to Section X (Notices) of this Compliance Agreement at least sixty (60) days before such proposed sale or transfer.

193. No sale or transfer of an Operational or Ownership Interest shall take place before the Third Party and EPA (in consultation with the States and the Citizen Plaintiffs) have executed a modification pursuant to Section XII (Modification) of this Compliance Agreement making the Third Party a party to this Compliance Agreement and jointly and severally liable with TVA for all the requirements of this Compliance Agreement that may be applicable to the transferred or purchased Operational or Ownership Interests.

194. This Compliance Agreement shall not be construed to impede the transfer of any Operational or Ownership Interests between TVA and any Third Party so long as the requirements of this Compliance Agreement are met. This Compliance Agreement shall not be construed to prohibit a contractual allocation between TVA and any Third Party of the burdens of compliance with this Compliance Agreement, provided that TVA shall remain liable to EPA for

the obligations of the Compliance Agreement applicable to the transferred or purchased Operational or Ownership Interests.

195. If EPA (in consultation with the States and the Citizen Plaintiffs) agrees, EPA, TVA, and the Third Party that has become a party to this Compliance Agreement pursuant to Paragraph 193, may execute a modification that relieves TVA of its liability under this Compliance Agreement for, and makes the Third Party liable for, all obligations and liabilities applicable to the purchased or transferred Operational or Ownership Interests. Notwithstanding the foregoing, however, no obligation under this Compliance Agreement may be assigned, transferred or released in connection with any sale or transfer of any Ownership Interest that is not specific to the purchased or transferred Operational or Ownership Interests, including the obligations set forth in Sections V.F (Environmental Mitigation Projects) and V.G (Civil Penalty), and Paragraphs 71 and 86. TVA may propose and EPA may agree to restrict the scope of the joint and several liability of any purchaser or transferee for any obligations of this Compliance Agreement that are not specific to the transferred or purchased Operational or Ownership Interests, to the extent such obligations may be adequately separated in an enforceable manner using the methods provided by or approved under Section V.L (Permits).

196. Paragraphs 192-195 of this Compliance Agreement do not apply if an Operational or 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 TVA (a) remains the operator (as that term is used and interpreted under the Act) of the subject TVA System Unit(s); (b) remains subject to and liable for all obligations and liabilities of this Compliance Agreement; and (c) supplies EPA with the following certification within thirty (30) days of the sale or transfer:

Certification of Change in Ownership Interest Solely for Purpose of Consummating Financing. We, the Chief Executive Officer(s) and General Counsel(s) of the Tennessee Valley Authority ("TVA"), hereby jointly certify under Title 18 U.S.C. Section 1001, on our own behalf and on behalf of TVA, that any change in TVA'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 TVA 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 TVA's ability, legally or otherwise, to comply timely with all terms and provisions of the Compliance Agreement entered in In re Tennessee Valley Auth., Docket No. CAA-04-2010-1760; (c) does not affect TVA's operational control of any Unit covered by that Compliance Agreement in a manner that is inconsistent with TVA's performance of its obligations under the Compliance Agreement; and (d) in no way affects the status of TVA's obligations or liabilities under that Compliance Agreement.

XII. MODIFICATION

197. The terms of this Compliance Agreement may be modified only by a subsequent written agreement signed by EPA (in consultation with the States and the Citizen Plaintiffs) and TVA. Where the modification constitutes a material change to this Compliance Agreement, it shall be subject to public notice and comment. The proposed modification shall be effective sixty (60) days after the date the modification is executed by EPA and TVA or, if public comments warrant a change to the proposed modification, then the modification shall be effective sixty (60) days after the date that TVA and EPA have memorialized the change to the modification.

XIII. GENERAL PROVISIONS

198. At any time prior to conditional and/or partial termination of enforcement through this Compliance Agreement, TVA may request approval from EPA to implement a pollution control technology or pollution reduction activity for SO_2 or NO_x other than what is required by this Compliance Agreement. In seeking such approval, TVA must demonstrate that such

alternative control technology or activity is capable of achieving and maintaining pollution reductions equivalent to an FGD (for SO_2) or SCR (for NO_x) at the Units in the TVA System at which TVA seeks approval to implement such other control technology or activity for SO_2 or NO_x. Approval of such a request is solely at the discretion of EPA (in consultation with the States and the Citizen Plaintiffs) provided that EPA shall not approve and TVA shall not implement an alternative control technology or activity if TVA fails to demonstrate that such alternative control technology or activity is capable of achieving and maintaining pollution reductions equivalent to an FGD (for SO_2) or SCR (for NO_x) at the Units in the TVA System. If EPA approves TVA's request, nothing in this Paragraph shall relieve TVA from complying with any other requirement of this Compliance Agreement applicable to such Unit (e.g., the requirement to obtain a federally enforceable non-Title V permit that includes the Unit-specific performance, operational, maintenance, and control technology requirements for such Unit in addition to the system-wide requirements and any plant-wide requirements also applicable to such Unit).

199. This Compliance Agreement is not a permit. Compliance with the terms of this Compliance Agreement does not guarantee compliance with any applicable federal, state, and/or local laws and/or regulations. The emission limitations set forth herein do not relieve TVA from any obligation to comply with other state and federal requirements under the Act, including TVA's obligation to satisfy any modeling requirements set forth in the Act.

200. This Compliance Agreement does not apply to any claim(s) of alleged criminal liability.

201. In any subsequent action initiated by EPA, the States, or the Citizen Plaintiffs relating to the facilities covered by this Compliance Agreement, TVA 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 EPA and/or any of the States or the Citizen Plaintiffs in the subsequent proceeding were brought, or should have been brought, in the instant case; provided, however, that nothing in this Paragraph is intended to affect the validity of Section V.H (Resolution of Claims Against TVA).

202. Except as specifically provided by this Compliance Agreement, nothing in this Compliance Agreement shall relieve TVA of its obligation to comply with all applicable federal, state, and/or local laws and/or regulations, including, but not limited to, TVA's obligation to apply for a Clean Water Act NPDES permit(s) or permit renewal for the discharge of wastewater from the operation of the FGDs at any TVA System Unit, and in connection with any such application or application for permit renewal, to provide the NPDES permitting authority with all information necessary to appropriately characterize effluent from its operations and develop, if applicable, appropriate effluent limitations; provided, however, that no claimed violation of this provision regarding NPDES permitting shall be enforceable as a violation of this Compliance Agreement, by way of stipulated penalty or otherwise. Subject to the provisions in Section V.H (Resolution of Claims Against TVA), nothing contained in this Compliance Agreement shall be construed to prevent or limit the rights of EPA, the States, or the Citizen Plaintiffs to obtain penalties or injunctive relief under the Act or other federal, state, or local statutes, regulations, or permits.

203. Nothing in this Compliance Agreement is intended to, or shall, alter or waive any applicable law (including but not limited to any defenses, entitlements, challenges, or clarifications related to the Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997)) concerning the use of data for any purpose under the Act.

204. Each limit and/or other requirement established by or under this Compliance Agreement is a separate, independent requirement.

205. Performance standards, emissions limits, and other quantitative standards set by or under this Compliance Agreement 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. TVA 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. TVA shall report data to the number of significant digits in which the standard or limit is expressed.

206. Except as otherwise provided by law, this Compliance Agreement does not limit, enlarge or affect the rights of any Party to this Compliance Agreement as against any third parties.

207. This Compliance Agreement constitutes the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Compliance Agreement, 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 Compliance Agreement or the settlement it represents, nor shall they be used in construing the terms of this Compliance Agreement.

XIV. SIGNATORIES AND SERVICE

208. Each undersigned representative of the Parties certifies that he or she is fully authorized to enter into the terms and conditions of this Compliance Agreement and to execute and legally bind to this document the Party he or she represents.

209. This Compliance Agreement may be signed in counterparts, and such counterpart signature pages shall be given full force and effect.

210. Each Party hereby agrees to accept service of process by mail with respect to all matters arising under or relating to this Compliance Agreement.

XV. PUBLIC COMMENT

211. The Parties agree and acknowledge that this Compliance Agreement shall be subject to public notice in the Federal Register with an opportunity for public comment. EPA reserves the right to withdraw its consent to this Compliance Agreement, and/or to seek modifications to this Compliance Agreement, if public comments received during the comment period disclose facts or considerations that indicate that this Compliance Agreement is inappropriate, improper, or inadequate.

XVI. CONDITIONAL TERMINATION OF ENFORCEMENT UNDER COMPLIANCE AGREEMENT

212. Termination as to Completed Tasks at a Unit. As soon as TVA completes a requirement of this Compliance Agreement pertaining to a particular Unit that is not ongoing or recurring, TVA may, by written letter to EPA, seek termination of the provision or provisions of this Compliance Agreement that imposed the requirement.

213. Conditional Termination of Enforcement Through the Compliance Agreement. After TVA:

a. has successfully completed construction of all pollution control technology or such other Control Requirement described in Paragraphs 73 and 89, and has maintained Continuous Operation of all pollution control technology or such other Control Requirement at the TVA System Units as required by this Compliance Agreement for at least two (2) years; and

b. has obtained final permits and/or site-specific SIP amendments (i) as required by Section V.L (Permits) of this Compliance Agreement, (ii) that cover all Units in this Compliance Agreement, and (iii) that include as enforceable permit terms all of the Unit-specific and TVA System performance, operational, maintenance, and control technology requirements specified in this Compliance Agreement;

then TVA may so certify these facts to EPA. If EPA (in consultation with the States and the Citizen Plaintiffs) does not object in writing with specific reasons within forty-five (45) days of receipt of TVA's certification, then, for any Compliance Agreement violations that occur after the certification is submitted, EPA shall pursue enforcement through the applicable permit(s)

required pursuant to Paragraphs 54, 160, 164, 165, 166, and 168 and/or other enforcement authority, and not through this Compliance Agreement.

214. Resort to Enforcement under this Compliance Agreement. Notwithstanding Paragraph 213, if enforcement of a provision in this Compliance Agreement cannot be pursued by EPA under the applicable permits required by this Compliance Agreement or other enforcement authority, or if a Compliance Agreement requirement was intended to be part of a permit and did not become or remain part of such permit, then such requirement may be enforced under the terms of this Compliance Agreement at any time.

Signature Page for Federal Facilities Compliance Agreement in:

In re Tennessee Valley Auth., Docket No. CAA-04-2010-1760

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

Date: 4/8/11

CYNTHIA GILES
Assistant Administrator
Office of Enforcement and Compliance Assurance

ADAM M. KUSHNER
Director, Office of Civil Enforcement

PHILLIP A. BROOKS
Director, Air Enforcement Division

ILANA SALTZBART
Attorney, Air Enforcement Division

Signature Page for Federal Facilities Compliance Agreement in:

In re Tennessee Valley Auth., Docket No. CAA-04-2010-1760

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

Date: APR 08 2011

GWENDOLYN KEYES FLEMING
Regional Administrator
Region 4

A. STANLEY MEIBURG
Deputy Regional Administrator
Region 4

Signature Page for Federal Facilities Compliance Agreement in:

In re Tennessee Valley Auth., Docket No. CAA-04-2010-1760

FOR THE TENNESSEE VALLEY AUTHORITY:

Date: 4/14/11

TOM KILGORE
President and Chief Executive Officer
Tennessee Valley Authority

APPENDIX A

REPORTING REQUIREMENTS

I. Annual Reporting Requirements

Beginning six (6) months after the Effective Date of this Compliance Agreement, and continuing annually on April 30 each year thereafter, TVA shall submit annual reports to EPA, the States, and the Citizen Plaintiffs electronically as required by Section V.I (Periodic Reporting). EPA, the States, and the Citizen Plaintiffs reserve the right to request such information in hard copy. In such annual reports, TVA shall include the following information:

A. System-Wide Annual Tonnage Limitations for NO_x and SO_2

TVA shall report the following information: (1) the total actual annual tons of the pollutant emitted from each Unit or, for Units sharing a common stack, the total actual annual tons of the pollutant emitted from each combined stack, within the TVA System and any New CC/CT Units during the prior calendar year; (2) the total actual annual tons of the pollutant emitted from the TVA System and any New CC/CT Units during the prior calendar year; (3) the difference, if any, between the System-Wide Annual Tonnage Limitation for the pollutant in that calendar year and the amount reported in subparagraph (2); and (4) for each pollutant, (a) the annual average emission rate, expressed as lb/mmBTU, for each Unit within the TVA System and any New CC/CT Units in the prior calendar year and (b) the annual average emission rate, expressed as lb/mmBTU, for the entire TVA System and any New CC/CT Units during the prior calendar year. Data submitted pursuant to this subsection shall be based upon CEMS pursuant to Paragraphs 85 and 101.

If TVA was subject to an adjusted System-Wide Annual Tonnage Limitation specified in Paragraphs 72 and 87 in the calendar year covered by the annual report, it shall report the following: (1) the Units at which the adjusted System-Wide Annual Tonnage Limitations in Paragraphs 72 and 87 apply and (2) the adjusted aggregate System-Wide Annual Tonnage Limitation.

B. Continuous Operation of Pollution Control Technology or Combustion Controls

TVA shall report the date that it commenced Continuous Operation of each SCR, FGD, PM Control Device, SNCR, LNB, OFA, and SOFA that TVA is required to Continuously Operate pursuant to this Compliance Agreement in the calendar year covered by the annual report.

TVA shall report, for any SCR, FGD, PM Control Device, SNCR, LNB, OFA, and SOFA that TVA is required to Continuously Operate during the calendar year covered by the annual report, the duration of any period during which that pollution

control technology or combustion control did not Continuously Operate, including the specific dates and times that such pollution control technology or combustion control did not operate, the reason why TVA did not Continuously Operate such pollution control technology or combustion control, and the measures taken to reduce emissions of the pollutant controlled by such pollution control technology or combustion control.

TVA shall include a statement in each annual report describing the actions it took to optimize the PM Control Devices as required by Paragraph 102 in the relevant calendar year.

C. Installation of NO_x, SO_2, and PM Control Devices

TVA shall report on the progress of construction (including upgrades) of SCRs and FGDs (and new PM Control Devices, if any) required by this Compliance Agreement including: (1) if construction is not underway, any available information concerning the construction schedule, including the dates of any major contracts executed during the prior calendar year, and any major components delivered during the prior calendar year; (2) if construction is underway, the estimated percent of installation as of the end of the prior calendar year, the current estimated construction completion date, and a brief description of completion of significant milestones during the prior calendar year, including a narrative description of the current construction status (e.g. foundations completed, absorber installation proceeding, all material on-site, new stack erection completed, etc.); (3) a list of all permits needed to construct and operate the device, the date TVA applied for such permits, and the status of the permit applications; and (4) once construction is complete, the dates the equipment was placed in service and any performance/emissions testing that was performed during the prior calendar year. For purposes of the FGD upgrade at Paradise Units 1 and 2, TVA shall demonstrate, with supporting documentation, that the construction activities performed to upgrade the FGDs at Paradise Units 1 and 2 were designed to upgrade the FGDs to a 93% removal efficiency.

D. Unit Retirements

Beginning on April 30 of the year following TVA's obligation pursuant to this Compliance Agreement to Retire a TVA System Unit, and continuing annually thereafter until all TVA System Units required to be Retired have been Retired, TVA shall report the date it Retired such Unit and a description of the actions TVA took to Retire such Unit within the meaning of Paragraph 55.

E. Repower to Renewable Biomass

If TVA elects the Repower to Renewable Biomass option for a TVA System Unit, in the next annual report following such election, and continuing annually thereafter, TVA shall report on the progress of its efforts to Repower such TVA System Unit including: (1) if construction is not underway, any available information concerning the construction schedule, including the dates of any major contracts executed during the

prior calendar year, and any major components delivered during the prior calendar year; (2) if construction is underway, the estimated percent of installation as of the end of the prior calendar year, the current estimated construction completion date, and a brief description of completion of significant milestones during the prior calendar year, including a narrative description of the current construction status; (3) a list of all permits needed to construct and operate the Repowered Unit, the date TVA applies for such permits, and the status of the permit applications; and (4) once construction is complete, the dates the Repowered Unit was placed in service and any performance/emissions testing that was performed during the prior calendar year.

F. PM Emission Control Optimization Study

Beginning on April 30 of the year following TVA's obligation to implement the EPA-approved recommendations required by Paragraph 103, TVA shall include a statement describing how it maintained each PM Control Device in accordance with the EPA-approved PM emission control optimization study.

G. Reporting Requirements for NO_x and SO_2 Allowances

1. Reporting Requirements for NO_x and SO_2 Surrendered Allowances

TVA shall report the number of NO_x and SO_2 Allowances that were allocated to it under any programs and the number of NO_x and SO_2 Allowances surrendered pursuant to Paragraphs 79 and 95 for the prior calendar year. TVA shall include the mathematical basis supporting its calculation of NO_x and SO_2 Allowances surrendered.

2. Reporting Requirements for NO_x and SO_2 Super-Compliance Allowances

TVA shall report any Super-Compliance NO_x or SO_2 Allowances that it generated as provided in Paragraphs 82 and 98 for the prior calendar year. TVA shall include the mathematical basis supporting its calculation of Super-Compliance NO_x or SO_2 Allowances. TVA shall also specifically identify the amount, if any, of Super-Compliance NO_x and SO_2 Allowances that TVA generated from Retiring a TVA System Unit that TVA did not utilize for purposes of Paragraph 121 (New CC/CT Units).

H. New CC/CT Units

TVA shall report all information necessary to determine compliance with Paragraphs 121-123. In particular, TVA shall report whether it has applied for a minor NSR permit as described in Subparagraph 121.b and 123.c to construct a New CC/CT Unit, and shall confirm that it timely provided a copy of the permit application to EPA, the States, and the Citizen Plaintiffs as required by Subparagraph 121.c and Paragraph 155. TVA shall report the amount of emission reductions of NO_x and the amount of emission reductions of SO_2 resulting from Retiring a TVA System Unit that TVA utilized as netting credits as provided in Paragraph 121. TVA shall report the amount of emission

reductions of Greenhouse Gases resulting from Retiring a TVA System Unit that TVA utilized as netting credits as provided in Paragraph 123. TVA shall describe how the emissions decreases on which it is relying in order to construct a New CC/CT Unit as provided in Paragraph 121 and 123 are both contemporaneous and otherwise creditable within the meaning of the Clean Air Act and the applicable SIP. In making these demonstrations, TVA shall provide unit-by-unit explanations and calculations. TVA shall include a description of the emission limitations determined by the relevant permitting authority as described in Subparagraph 121.b, and how such emission limitations are consistent with this Compliance Agreement and Appendix B. TVA shall provide all relevant information, including an appropriate mathematical calculation, to demonstrate that any emission decrease upon which it relied for purposes of Paragraph 121 was not used to generate a Super-Compliance NO_x or SO_2 Allowance in the calendar year in which TVA relies upon such emission reduction and all calendar years thereafter. TVA shall provide all information necessary to determine compliance with the conditions established in Paragraphs 123.b-123.c.

I. NO_x, SO_2, and PM CEMS Malfunction, Repair, or Maintenance

TVA shall report all periods when a CEMS required by this Compliance Agreement was not operating, including periods of monitor malfunction, repair, or maintenance in the prior calendar year.

J. PM CEMS Data

In an electronic, spreadsheet format, TVA shall submit the data recorded by the PM CEMS, expressed in lb/mmBTU, on a three-hour (3-hour) rolling average basis and a twenty-four-hour (24-hour) rolling average basis, and shall include identification of each 3-hour average and 24-hour average above the 0.030 lb/mmBTU PM Emission Rate for Bull Run Unit 1, Colbert Unit 5, and Kingston Units 1-9, for the prior calendar year. If TVA locates a PM CEMS at another Unit in the TVA System pursuant to Paragraph 114, and such Unit is also subject to a PM Emission Rate pursuant to Paragraph 104, TVA shall also include identification of each 3-hour average exceededance for such Unit.

K. SO_2 Emission Rate at Shawnee

TVA shall submit all data necessary to determine whether emissions of SO_2 from Shawnee Units 1-10 exceeded 1.2 lb/mmBTU in the prior calendar year.

L. PM Stack Tests & PM Emission Rates

TVA shall submit the complete report for the stack tests performed pursuant to Paragraphs 105 and 106 in the prior calendar year. TVA shall separately identify the stack test reports for the TVA System Units subject to a PM Emission Rate under this Compliance Agreement.

M. Environmental Mitigation Projects

1. State Mitigation Projects

TVA shall report funds disbursed to the States pursuant to Paragraphs 122-124 and 126 of the Consent Decree in the prior calendar year.

2. Appendix C Projects

TVA shall report on the progress of the Mitigation Projects as provided in Appendix C.

N. Other Unit at Shawnee Becomes Improved Unit

If TVA decides to make an Other Unit at the Shawnee Plant an Improved Unit, TVA shall so state in the next annual report it submits after making such decision, and shall comply with the reporting requirements specified in Section I.C of this Appendix and any other reporting or notice requirements in accordance with the Compliance Agreement.

O. Projects Performed at Improved Units

TVA shall submit a list of all projects performed at an Improved Unit and an Other Unit that increase the maximum hourly emission rate of that Unit for NO_x or SO_2 as described in Paragraphs 142 and 143.a, as measured by 40 C.F.R. §§ 60.14(b) and (h).

P. Capital Projects at Shawnee

TVA shall submit a list of all Capital Expenditures performed on the Boiler Islands at each Unit at the Shawnee Plant in order to determine whether TVA has exceeded the thresholds established in Paragraph 143.b.

Q. Emission Reductions Greater than those Required Under this Compliance Agreement

TVA shall report whether, in the relevant calendar year, it claimed to have achieved emission reductions at a particular TVA System Unit that are greater than those emission reductions required under this Compliance Agreement for the particular TVA System Unit as provided in Paragraph 120. If TVA did not claim to have achieved emission reductions at a particular TVA System Unit that are greater than those emission reductions required under this Compliance Agreement, it shall so state. If TVA did, for any purpose, claim to achieve emission reductions at a particular TVA System Unit that are greater than those required under this Compliance Agreement for that particular TVA System Unit, TVA shall include a description of how it achieved such emission reductions, including a mathematical calculation in support of the claimed emission reductions, an explanation of how such emission reductions are greater than those required under this Compliance Agreement, and the manner in which such emission

reductions were either relied upon or used for purposes of permitting actions, non-permitting actions, or otherwise.

II. Deviation Reports

TVA shall report all deviations from the requirements of the Compliance Agreement that occur during the calendar year covered by the annual report, identifying the date and time that the deviation occurred, the date and time the deviation was corrected, the cause of any corrective actions taken for each deviation, if necessary, and the date that the deviation was initially reported under Paragraph 156.

III. Submission Pending Review

In each annual report, TVA shall include a list of all plans or submissions made pursuant to this Compliance Agreement during the calendar year covered by the annual report and all prior calendar years since the Effective Date of the Compliance Agreement, the date(s) such plans or submissions were submitted to EPA for review or approval, and shall identify which, if any, are still pending review and approval by EPA upon the date of the submission of the annual report.

IV. Other Information Necessary to Determine Compliance

To the extent that information not expressly identified herein is necessary to determine TVA's compliance with the requirements of this Compliance Agreement for the calendar year covered by the annual report, and such information has not otherwise been submitted, TVA shall provide such information as part of the annual report required pursuant to Section V.I (Periodic Reporting) of the Compliance Agreement and TVA shall provide such other information that is deemed necessary by EPA in consultation with the States.

V. Information Previously Submitted under Title V Permitting Requirements

In any periodic progress report submitted pursuant to Section V.I (Periodic Reporting) of the Compliance Agreement and this Appendix, TVA may incorporate by reference information previously submitted under its Title IV or Title V permitting requirements, provided that TVA attaches the Title IV and/or Title V permit report, or the relevant portion thereof, and provides a specific reference to the provisions of the Title IV and/or Title V permit report that are responsive to the information required in the periodic progress report.

APPENDIX B

EMISSION LIMITATIONS FOR NEW CC/CT UNITS

This Appendix B sets forth emission limitations for certain regulated NSR pollutants for the purpose of constructing New CC/CT Units pursuant to Paragraph 121 of the Compliance Agreement. The emission limitations set forth in this Appendix serve solely as the minimum stringency for emission limitations to be determined by the relevant permitting authority for such New CC/CT Units as described in Paragraph 121, and shall not be presumed to be BACT or LAER. Although the permitting authority as part of the permitting action described in Paragraph 121 of the Compliance Agreement shall not determine BACT or LAER to be less stringent than the emission limitations set forth herein, nothing in the Compliance Agreement or this Appendix shall prevent the permitting authority from establishing more stringent emission limitations than those set forth in this Appendix. For purposes of the permitting action described in Paragraph 121 of the Compliance Agreement, TVA shall not assert that the Compliance Agreement (including this Appendix) supports imposing a BACT or LAER emission limitation that is no more stringent than the emission limitations set forth herein.

The permitting authority will determine BACT and LAER, as appropriate, for NO_x, SO_2, VOC, PM, PM_{10}, and $PM_{2.5}$ for all periods of operation, including startup, shutdown, combustion tuning, and fuel switching as part of the minor NSR permitting action described in Paragraph 121. The emission limitations only for NO_x and VOC described in this Appendix do not apply during startup, shutdown, combustion tuning, and fuel switching. For purposes of startup and shutdown, the permitting authority will consider appropriate technologies, methodologies, and other practices to reduce or minimize emissions during such events (such as the use of an auxiliary boiler to preheat the catalyst, the use of Rapid Start Process, and by limiting the number and duration of startups and shutdowns, among other things) as part of the BACT/LAER analysis. In addition to any other limitations determined by the permitting authority, combustion tuning shall be limited to no more than four (4) hours per event and the total event hours in a calendar year shall not exceed twenty (20) hours. The permitting authority shall require TVA to include advance notice of the details of such combustion tuning event and the proposed tuning schedule. An event, for purposes of the 4-hour event limit, shall begin to run when TVA first commences the combustion tuning process at a unit and shall conclude once TVA has completed all tuning-related activities and returns the unit to normal operation. For purposes of this Appendix, and in addition to any other limitations determined by the permitting authority, the type of fuel switching for which the NO_x and VOC emission limitations described in this Appendix do not apply shall be for oil-to-gas switching not to exceed thirty (30) minutes per each oil-to-gas fuel switch and gas-to-oil switching not to exceed fifteen (15) minutes per each gas-to-oil fuel switch.

The New CC/CT Units constructed pursuant to Paragraph 121 of the Compliance Agreement shall combust Natural Gas as the primary fuel, which shall contain no more than one (1) grain sulfur per one hundred (100) standard cubic feet ("Gr S/100 SCF"). Ultra-Low Sulfur Diesel ("ULSD") Fuel Oil containing no more than 0.0015% sulfur by weight may be used as an alternate fuel, provided that the use of such fuel is limited to no more than five hundred (500)

hours during any calendar year or one hundred (100) hours during any calendar year, as specified in the Tables below. Units subject to an ULSD Fuel Oil operational limitation of 100 hours during any calendar year shall only combust ULSD Fuel Oil for either Testing or during periods of Natural Gas Curtailment. For purposes of this Appendix, the term "Testing" shall mean the infrequent start-up of a unit not for purposes of generating electricity but to ensure that the unit is physically capable of operating. For purposes of this Appendix, the term "Natural Gas Curtailment" shall mean a restriction or limitation imposed by a third-party beyond TVA's control on TVA's ability to obtain or use Natural Gas. If TVA Retires one or more of the Units at the Allen Fossil Plant identified in Paragraph 67 of the Compliance Agreement and seeks to construct a New CC/CT Unit co-located at the Allen Fossil Plant pursuant to Paragraph 121 of the Compliance Agreement, then, in addition to Natural Gas and ULSD Fuel Oil, TVA may also request that the permitting authority authorize it to co-fire biogas from the Memphis Public Works waste treatment plant at such New CC/CT Units, which is the same biogas that TVA co-fires at the Allen Fossil Plant as of the Effective Date of this Compliance Agreement.

The Tables in this Appendix do not contain emission limitations for filterable or condensable PM_{10} or condensable $PM_{2.5}$. The permitting authority will determine BACT and LAER, as appropriate, for all fractions of PM that are regulated NSR pollutants as of the time of the permitting action, including filterable and condensable PM_{10} and filterable and condensable $PM_{2.5}$, as part of the permitting process required pursuant to Paragraph 121 of the Compliance Agreement.

The NO_x emission limitations in Sections B, C, and D do not require the installation of selective catalytic reduction (SCR) technology. However, the Parties recognize that SCR is technically feasible for CT units.

Tables A.1 and A.2 set forth the minimum stringency emission limitations for New CC Units. Tables B.1, B.2, C.1, C.2, D.1, and D.2 set forth the minimum stringency emission limitations for New CT Units. As set forth in Tables B.1 and C.1, New CT Units located in an attainment area shall either be subject to an overall hours of operation limitation of no more than thirteen hundred (1,300) hours in a rolling twelve-month (12-month) period or have no overall hours of operation limitation. As set forth in Tables A.2, B.2, C.2, and D.2, all New CC/CT Units (whether in attainment or nonattainment areas) will have a limitation on the use of ULSD.

A. Emission Limitations for New CC Units

As part of the minor NSR permitting action described in Paragraph 121 of the Compliance Agreement, the permitting authority shall establish emission limitations that are no less stringent than those set forth in Table A.1 for New CC Units firing Natural Gas and Table A.2 for New CC Units firing ULSD Fuel Oil. Additionally, as part of the minor NSR permitting action described in Paragraph 121 of the Compliance Agreement, the permitting authority shall impose a condition that limits the New CC Units to firing no more than 500 hours of ULSD Fuel Oil in a calendar year.

Table A.1 – Emission Limitations for Natural Gas-fired operation

Pollutant	**Emission Rate**	**Averaging Period**	**Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process**
NO_x	2.0 parts per million (ppm) at 15% O_2	8-hour rolling average	Startup, shutdown, combustion tuning, fuel switching
SO_2	1 Gr S/100 SCF	12-month rolling average	All periods of operation are subject to the emission limitation set forth in this Table (hereinafter referred to as "NA")
Filterable $PM_{2.5}$	0.005 lb/mmBTU	Average of three 1-hour runs from stack test in accordance with reference method	NA
VOC	1.5 ppm at 15% O_2 without duct firing 2.0 ppm at 15% O_2 with duct firing	Average of three 1-hour runs from stack test in accordance with reference method	Startup, shutdown, combustion tuning, fuel switching

Table A.2 – Emission Limitations for ULSD Fuel Oil-fired operation (not to exceed 500 hours during any calendar year)

Pollutant	**Emission Rate**	**Averaging Period**	**Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process**
NO_x	8.0 ppm at 15% O_2	8-hour rolling average	Startup, shutdown, combustion tuning, fuel switching
SO_2	15 ppm S	NA	NA
Filterable $PM_{2.5}$	0.015 lb/mmBTU	Average of three 1-hour runs from stack test in accordance with reference method	NA
VOC	4.0 ppm at 15% O_2	Average of three 1-hour runs from stack test in accordance with reference method	Startup, shutdown, combustion tuning, fuel switching

B. Emission Limitations for New CT Units Located in Attainment Areas Subject to an Operational Limitation of 1,300 Hours in a 12-Month Period

As part of the minor NSR permitting action described in Paragraph 121 of the Compliance Agreement, the permitting authority shall establish emission limitations that are no less stringent than those set forth in: (i) Table B.1 for New CT Units firing Natural Gas if they are located in an attainment area and are subject to an overall hours of operation limitation of no more than 1,300 hours in a rolling 12-month period and (ii) Table B.2 for New CT Units firing ULSD Fuel Oil if they are located in an attainment area and are subject to an overall hours of operation limitation of no more than 1,300 hours in a rolling 12-month period, and which must be subject to an operational limitation for ULSD Fuel Oil that limits the New CT Units to firing no more than 500 hours of ULSD Fuel Oil in a calendar year.

Table B.1 – Emission Limitations for Natural Gas-fired Operation

Pollutant	**Emission Rate**	**Averaging Period**	**Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process**
NO_x	9.0 ppm at 15% O_2	8-hour rolling average	Startup, shutdown, combustion tuning, fuel switching
SO_2	1 Gr S/100 SCF	12-month rolling average	NA
Filterable $PM_{2.5}$	0.005 lb/mmBTU	Average of three 1-hour runs from stack test in accordance with reference method	NA
VOC	3.0 ppm at 15% O_2	Average of three 1-hour runs from stack test in accordance with reference method	Startup, shutdown, combustion tuning, fuel switching

Table B.2 – Emission Limitations for ULSD Fuel Oil-fired Operation (not to exceed 500 hours during any calendar year)

Pollutant	**Emission Rate**	**Averaging Period**	**Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process**
NO_x	42 ppm at 15% O_2	8-hour rolling average	Startup, shutdown, combustion tuning, fuel switching
SO_2	15 ppm S	NA	NA
Filterable	0.015 lb/mmBTU	Average of three 1-	NA

Pollutant	Emission Rate	Averaging Period	Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process
$PM_{2.5}$		hour runs from stack test in accordance with reference method	
VOC	5.0 ppm at 15% O_2	Average of three 1-hour runs from stack test in accordance with reference method	Startup, shutdown, combustion tuning, fuel switching

C. Emission Limitations for New CT Units Located in Attainment Areas with No Hours of Operation Limit

As part of the minor NSR permitting action described in Paragraph 121 of the Compliance Agreement, the permitting authority shall establish emission limitations that are no less stringent than those set forth in: (i) Table C.1 for New CT Units firing Natural Gas if they are located in an attainment area and are not subject to an overall hours of operation limitation of no more than 1,300 hours in a rolling 12-month period and (ii) Table C.2 for New CT Units firing ULSD Fuel Oil if they are located in an attainment area and are not subject to an overall hours of operation limitation of no more than 1,300 hours in a rolling 12-month period, and which must be subject to an operational limitation for ULSD Fuel Oil that limits the New CT Units to firing no more than 100 hours of ULSD Fuel Oil in a calendar year, and further limiting the use of ULSD Fuel Oil at such New CT Units for purposes of Testing or during periods of Natural Gas Curtailment only. If the permitting authority, as part of the minor NSR permitting action for a New CT Unit firing ULSD Fuel Oil to be located in an attainment area with no overall hours of operation limitation, requires TVA to install and operate an SCR and achieve a NO_x emission rate of no greater than 6.0 ppm at 15% O_2 over an eight-hour (8-hour) rolling average rather than 42 ppm at 15% O_2 over an 8-hour rolling average as specified in Table C.2 below, then the 500 hour calendar year operational limitation described in Section B shall apply instead of the 100 hour calendar year operational limitation specified in this Section C.

Table C.1 – Emission Limitations for Natural Gas-fired Operation

Pollutant	Emission Rate	Averaging Period	Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process
NO_x	5.0 ppm at 15% O_2	8-hour rolling average	Startup, shutdown, combustion tuning, fuel switching
SO_2	1 Gr S/100 SCF	12-month rolling average	NA

Pollutant	Emission Rate	Averaging Period	Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process
Filterable $PM_{2.5}$	0.005 lb/mmBTU	Average of three 1-hour runs from stack test in accordance with reference method	NA
VOC	1.5 ppm at 15% O_2	Average of three 1-hour runs from stack test in accordance with reference method	Startup, shutdown, combustion tuning, fuel switching

Table C.2 – Emission Limitations for ULSD Fuel Oil-fired Operation (not to exceed 100 hours during any calendar year, and only for either Testing or Natural Gas Curtailment)

Pollutant	Emission Rate	Averaging Period	Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process
NO_x	42 ppm at 15% O_2	8-hour rolling average	Startup, shutdown, combustion tuning, fuel switching
SO_2	15 ppm S	NA	NA
Filterable $PM_{2.5}$	0.015 lb/mmBTU	Average of three 1-hour runs from stack test in accordance with reference method	NA
VOC	4.0 ppm at 15% O_2	Average of three 1-hour runs from stack test in accordance with reference method	Startup, shutdown, combustion tuning, fuel switching

D. Emission Limitations for New CT Units Located In Nonattainment Areas With or Without an Hours of Operation Limit

As part of the minor NSR permitting action described in Paragraph 121 of the Compliance Agreement, the permitting authority shall establish emission limitations that are no less stringent than those set forth in: (i) Table D.1 for New CT Units firing Natural Gas if they are located in a nonattainment area and (ii) Table D.2 for New CT Units firing ULSD Fuel Oil if they are located in a nonattainment area and which must be subject to an operational limitation for ULSD Fuel Oil that limits the New CT Units to firing no more than 100 hours of ULSD Fuel Oil in a calendar year, and further limiting the use of ULSD Fuel Oil at such New CT Units for purposes of Testing or during periods of Natural Gas Curtailment only. If the permitting authority, as part

of the minor NSR permitting action for a New CT Unit firing ULSD Fuel Oil to be located in a nonattainment area, requires TVA to install and operate an SCR and achieve a NO_x emission rate of no greater than 6.0 ppm at 15% O_2 over an 8-hour rolling average rather than 42 ppm at 15% O_2 over an 8-hour rolling average as specified in Table D.2 below, then the 500 hour calendar year operational limitation described in Section B shall apply instead of the 100 hour calendar year operational limitation specified in this Section D.

Table D.1 – Emission Limitations for Natural Gas-fired Operation

Pollutant	**Emission Rate**	**Averaging Period**	**Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process**
NO_x	5.0 ppm at 15% O_2	8-hour rolling average	Startup, shutdown, combustion tuning, fuel switching
SO_2	1 Gr S/100 SCF	12-month rolling average	NA
Filterable $PM_{2.5}$	0.005 lb/mmBTU	Average of three 1-hour runs from stack test in accordance with reference method	NA
VOC	1.5 ppm at 15% O_2	Average of three 1-hour runs from stack test in accordance with reference method	Startup, shutdown, combustion tuning, fuel switching

Table D.2 – Emission Limitations for ULSD Fuel Oil-fired Operation (not to exceed 100 hours during any calendar year, and only for either Testing or Natural Gas Curtailment)

Pollutant	**Emission Rate**	**Averaging Period**	**Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process**
NO_x	42 ppm at 15% O_2	8-hour rolling average	Startup, shutdown, combustion tuning, fuel switching
SO_2	15 ppm S	NA	NA
Filterable $PM_{2.5}$	0.015 lb/mmBTU	Average of three 1-hour runs from stack test in accordance with reference method	NA

Pollutant	Emission Rate	Averaging Period	Periods of Operation Subject to an Alternate BACT/LAER Emission Limitation to Be Established by the Permitting Authority as Part of the Permitting Process
VOC	4.0 ppm at 15% O_2	Average of three 1-hour runs from stack test in accordance with reference method	Startup, shutdown, combustion tuning, fuel switching

APPENDIX C

ENVIRONMENTAL MITIGATION PROJECTS

In compliance with and in addition to the requirements in Section V.F (Environmental Mitigation Projects) of the Compliance Agreement, TVA shall comply with the requirements of this Appendix to ensure that the benefits of the $290 million in total Project Dollars are achieved.

I. Overall Environmental Mitigation Projects Schedule and Budget

A. TVA shall submit plans for review and approval pursuant to Section V.J (Review and Approval of Submittals) of the Compliance Agreement for the Environmental Mitigation Projects ("Projects') described in this Appendix (except for actions required by Section V of this Appendix), within 120 days of the Effective Date of the Compliance Agreement.

B. Beginning 120 days after the date EPA approves the plan and continuing semi-annually thereafter until completion of each Project (including any applicable periods of demonstration or testing), TVA shall provide EPA with written reports detailing the activities undertaken and the progress of each Project, including an accounting of Project Dollars spent to date, and, if applicable, any GHG (expressed as carbon dioxide equivalent (CO_{2e})), sulfur dioxide (SO_2), nitrogen oxides (NO_x) and mercury (Hg) emission reductions and the methodologies used for those calculations. TVA may consolidate the plans required by this Appendix into a single plan. For purposes of this Appendix, CO_2e means the number of metric tons of CO_2 emissions with the same global warming potential as one metric ton of another Greenhouse Gas, and is calculated using Equation A–1 of 40 CFR Part 98, Subpart A.

C. Within 60 days following the final expenditure of Project Dollars for each Project required under the Compliance Agreement and this Appendix (including any applicable periods of demonstration or testing), TVA shall submit to EPA a report that documents the date that the Project was completed, the emission reductions or other environmental benefits resulting from the Project including TVA's methodology or analysis supporting these reductions and benefits, and the Project Dollars expended by TVA in implementing the Project.

D. Upon EPA's approval of the plans required by this Appendix, TVA shall complete the Environmental Mitigation Projects according to the approved plans. Nothing in the Compliance Agreement or this Appendix shall be interpreted to prohibit TVA from completing the Environmental Mitigation Projects before the deadlines specified in the schedule of an approved plan.

E. Plan Revisions. Notwithstanding the submission and approval of a plan for these Projects as required by this Appendix, TVA reserves the right to submit to EPA for review and approval pursuant to Section V.J (Review and Approval of Submittals) a proposed amended plan if it identifies alternative Projects that have the potential for greater environmental benefits, are otherwise consistent with the requirements of this Section, and may be more cost-effective than projects listed herein or previously approved by EPA as part of the initial plan.

II. Energy Efficiency Projects

A. No later than 120 days after the Effective Date of the Compliance Agreement TVA shall submit a plan to EPA for review and approval pursuant to Section V.J of the Compliance Agreement (Review and Approval of Submittals) for the reduction or avoidance of criteria pollutants, Greenhouse Gases (GHGs), and other air pollutants through the Energy Efficiency Projects. The plan shall describe how TVA will spend $240 million Project Dollars on Energy Efficiency Projects (Projects) within five years of the date of plan approval. The plan shall include a phased schedule for the reduction of emissions and TVA's expenditures on these Projects. TVA may spread the payments for the Energy Efficiency Projects evenly over five years from the date of plan approval.

B. Nothing in this Appendix is intended to preclude TVA from utilizing any GHG reductions or avoided emissions achieved through implementation of the Energy Efficiency Projects to satisfy any future federal or state legislative or regulatory requirements requiring the avoidance, reduction or offset of GHG emissions from any TVA System Unit or plant.

C. TVA shall describe in the plans submitted to EPA for review and approval how TVA shall maintain the emission reductions associated with the Projects it implements as part of the Energy Efficiency Projects.

D. The plan required to be submitted pursuant to this Section of this Appendix shall also satisfy the following criteria:

1. Describe how the proposed Projects in the plan are consistent with the requirements of this Section and the Compliance Agreement, and how the Projects will result in the emission reductions projected to be reduced for GHGs (expressed in CO_2e), SO_2, NO_x and Hg pursuant to this Section.

2. Include a budget and schedule for completing the Energy Efficiency Projects on a phased schedule by five (5) years from the date of plan approval and the supporting methodologies and calculations for the budget.

3. Describe the methodology and include any calculations that TVA proposes to use in order to document the emission reductions associated with any proposed Project to be implemented as part of this Section.

E. Upon EPA's approval of the plan, TVA shall complete the Energy Efficiency Projects according to the approved plan and schedule.

F. Energy Efficiency Projects Include:

1. Voltage Optimization (Transmission Loss Reduction). TVA will invest in one or more Projects to improve the end-to-end efficiency of the power delivery system through optimization of system voltages or other similar approaches. An example project would deploy advanced metering and control technology to provide real-time measurement and optimization of system voltages to reduce transmission line losses, and reduce consumer energy consumption. By optimizing distribution feeder voltages to the lower portion of the American National Standards Institute service range, energy savings are estimated to be 2-3% of the total energy delivered. TVA will spend $30 to 60 million in Project Dollars to implement this Project within five years from the date of plan approval.

2. Tennessee Valley Smart Energy Communities:

a) TVA will establish one or more "Smart Energy Communities" in the Tennessee Valley Region to model the most efficient energy use processes and upgrades available. An example project would provide a range of energy efficiency technologies and the primary enabling elements of a smart grid (intelligent devices, two-way communications, and information management) on a typical power distributor system to demonstrate the range of benefits that can be achieved from a smart grid deployment. Technology or efficiency applications could include: high efficiency air conditioning or water heating, lighting upgrades, smart meters, consumer interface/display devices, grid integrated renewable energy, energy storage, electric vehicle and vehicle charging, voltage optimization, and full characterization of the carbon impact of such a deployment. A component of "Smart Energy Communities" could be the development of tools and resources for educating consumers and communities on the benefits of such upgrades.

b) TVA will provide "Extreme Energy Makeovers" for at least two communities of homes or residences located in at least two different climate regions in the Tennessee Valley. This Project would retrofit a community of residences, such as low-income housing, with the most cost-effective energy-reduction packages on actual homes and monitor the results, with a goal to achieve 25% energy use reduction. The estimated energy savings is 1,000 MWh/yr at approximately $10/sq.ft.

c) Within five years from the date of plan approval, TVA will expend $20 to $50 million in Project Dollars to implement these two Projects.

3. Whole Home Efficiency Upgrades: TVA will reimburse 50 percent of the installation cost per item (with a targeted upper limit of $500 per household) to homeowners who invest in one or more of the following items for their home: insulation; new *ENERGY STAR* heat pumps, air conditioning, and windows; duct repair/replacement and sealing; or caulking, and weather-stripping, and maintenance of existing Heating Ventilation Air Conditioning (HVAC) systems. TVA and participating distributors of TVA power will also provide expert advice, financing, and lists of qualified weatherization and HVAC contractors to allow homeowners to make the most cost-effective improvements to lower their monthly energy bills. TVA will expend at least $45 to $50 million in Project Dollars within five years of the date of plan approval to implement these Projects.

4. Commercial Custom and Prescriptive Efficiency Assistance: TVA will provide incentives for commercial end-users to invest in energy efficiency improvements to such systems as lighting, heating and cooling, and other technologies (e.g. refrigeration, food service, office equipment, etc.). TVA will fund energy audits and expert consulting services to collaborate with businesses to develop energy efficiency improvement plans aimed at making commercial facilities (e.g. schools, hospitals, office and government buildings, etc.) more energy efficient. TVA will offer custom incentives for site specific improvements resulting in calculated or directly measured energy and demand reductions and will offer a menu of prescriptive incentives for specified, pre-approved types of efficiency upgrades to commercial building electric systems and equipment. Incentives will be structured to help commercial businesses shorten payback periods and move proposed projects to implementation. TVA will expend $55 to $60 million in Project Dollars within five years of the date of plan approval to implement this Project.

5. Industrial Custom and Prescriptive Efficiency Assistance: TVA will provide incentives for manufacturers to invest in energy-efficient industrial process improvements (e.g., high-efficiency motors, drives, compressed air, refrigeration, and lighting). TVA will fund expert consulting services to collaborate with manufacturers to develop a portfolio of energy-efficiency Projects aimed at making processes more energy efficient. TVA will offer custom and prescriptive incentives for high-efficiency equipment retrofits and process improvements. The incentives will be structured to help manufacturers shorten payback periods and move proposed Projects to implementation. TVA will expend

$45 to $50 million in Project Dollars to implement these Projects within five years of the date of plan approval.

III. **Clean Diesel Retrofit and Electric Vehicle Projects**

A. Within one hundred twenty (120) days from the Effective Date of this Compliance Agreement, TVA shall submit to EPA for review and approval pursuant to Section V.J (Review and Approval of Submittals) of this Compliance Agreement:

1. A plan to retrofit in-service non-TVA publicly-owned diesel engines (e.g, municipal vehicles, public school vehicles, etc) with emission control equipment further described in this Section, designed to reduce emissions of particulates and/or ozone precursors (the "Clean Diesel Retrofit Project") and fund the operation and maintenance of the retrofit equipment for the time-period described below.

2. TVA may also include a plan to replace in-service non-TVA publicly-owned motor vehicles powered by diesel or gasoline engines with newly manufactured hybrid-electric or electric vehicles (the "Electric Vehicle Project"). For purposes of this Appendix, "hybrid-electric vehicle means a vehicle that can generate and utilize electric power to reduce the vehicle's consumption of fossil fuel. Any hybrid-electric or electric vehicle shall meet all applicable engine standards, certifications, and/or verifications required by law.

3. The Clean Diesel Retrofit Project and the Electric Vehicle Project shall include, where necessary, techniques and infrastructure needed to support such retrofits and/or replacements. TVA shall ensure that the recipients operate and maintain the retrofit and/or replaced equipment for five years from the date of installation/replacement, by providing funding for operation and maintenance as described in Section III.B.7., below.

4. TVA shall spend no less than $8 million in performing these Projects, and shall complete the Projects within five years of the date of plan approval. TVA shall limit the use of Project Dollars for administrative and project support costs (excluding educational materials) associated with implementation of these projects to no greater than 10% of the Project Dollars TVA spends. A portion of the funds allocated for administrative and project support may be used for training and travel to support the Project.

B. In addition to the requirements of Section I, the plan for the Clean Diesel Retrofit Project shall also satisfy the following criteria:

1. Involve vehicles based in the TVA service area.

2. Provide for the retrofit of public diesel engines with EPA or California Air Resources Board ("CARB") verified emissions control technologies to achieve the greatest measurable mass reductions of particulates and/or ozone precursors for the fleet of vehicles that participate(s) in the Clean Diesel Retrofit Project. Depending upon the particular EPA or CARB verified emissions control technology selected, the retrofit diesel engines must achieve emission reductions of particulates and/or ozone precursors by 30%-90%, as measured from the pre-retrofit emissions for the particular diesel engine.

3. Describe the process TVA will use to determine the most appropriate emissions control technology for each particular diesel engine that will achieve the greatest mass reduction of particulates and/or ozone precursors. In making this determination, TVA must take into account the particular operating criteria required for the EPA or CARB verified emissions control technology to achieve the verified emissions reductions.

4. Provide for the retrofit of diesel engines with either: (a) diesel particulate filters (DPF); (b) diesel oxidation catalysts (DOC); or (c) closed crankcase ventilation systems with either DPF or DOC.

5. Describe the process TVA will use to notify fleet operators and owners in TVA's service territory that their fleet of vehicles may be eligible to participate in the Clean Diesel Retrofit Project and to solicit their interest in participating in the Project.

6. Describe the process and criteria TVA will use to select the particular fleet operator and owner to participate in this Project, consistent with the requirements of this Section.

7. For each of the recipient fleet owners and operators, describe the amount of Project Dollars that will cover the costs associated with: (a) purchasing the verified emissions control technology, (b) installation of the verified emissions control technology (including datalogging), (c) training costs associated with repair and maintenance of the verified emissions control technology (including technology cleaning and proper disposal of waste generated from cleaning), and (d) the incremental costs for repair and maintenance of the retrofit equipment (i.e., DPF, DOC, closed crankcase ventilation system) for five years from the date of installation, including the costs associated with the proper disposal of the waste generated from cleaning the verified emissions control technology. This Project shall not include costs for normal repair or operation of the retrofit diesel fleet.

8. Include a mechanism to ensure that recipients of the retrofit equipment will bind themselves to follow the operating criteria required for the

verified emissions control technology to achieve the verified emissions reductions and properly maintain the retrofit equipment installed in connection with the Project for the period beginning on the date the installation is complete through December 31, 2016.

9. Describe the process TVA will use for determining which diesel engines in a particular fleet will be retrofitted with the verified emissions control technology, consistent with the criteria specified in Section III.B.2.

10. Ensure that recipient fleet owners and/or operators, or their funders, do not otherwise have a legal obligation to reduce emissions through the retrofit of diesel engines.

11. For any third party with whom TVA might contract to carry out this Project, establish minimum standards that include prior experience in arranging retrofits, and a record of prior ability to interest and organize fleets, school districts, and community groups to join a clean diesel program.

12. Ensure that the recipient fleet(s) comply with local, state, and federal requirements for the disposal of the waste generated from the verified emissions control technology and follow CARB's guidance for the proper disposal of such waste.

13. Include a schedule and budget for completing each portion of the Project, including funding for operation and maintenance of the retrofit equipment through December 31, 2016.

C. In addition to the information required to be included in the report pursuant to Section I.C., above, TVA shall also describe the fleet owner/operator; where it implemented this Project; the particular types of verified emissions control technology (and the number of each type) that it installed pursuant to this Project; the type, year, and horsepower of each vehicle; an estimate of the number of citizens affected (if applicable) by this Project, and the basis for this estimate; and an estimate of the emission reductions for Project or engine, as appropriate (using the manufacturer's estimated reductions for the particular verified emissions control technology), including particulates, hydrocarbons, carbon monoxide, and nitrogen oxides.

D. In addition to the requirements of Section I, the plan for the Electric Vehicle Project shall also satisfy the following criteria:

1. Propose the replacement of conventional gasoline or diesel powered motor vehicles described in Section III.A. above with hybrid-electric and/or electric vehicles operated in TVA's service territory.

2. Prioritize the public fleets in TVA's service territory that will be selected for participation in this Project, including consideration of such issues as environmental justice and air quality.

3. Describe the rationale and basis (including a discussion of cost) for selecting the make and model of the hybrid-electric and/or electric vehicles chosen for this Project, including information about other available hybrid-electric or electric vehicles and why such vehicles were not selected.

4. Require the recipients of such hybrid-electric or electric vehicles to certify that the hybrid-electric or electric vehicles will be used for their useful life.

5. Describe the final disposition of the vehicles that are being replaced.

6. Include a schedule for completing the Electric Vehicle Project.

7. Describe generally the expected environmental benefits of the Project, including any fuel efficiency improvements, and quantify emission reductions expected.

E. Upon EPA's approval of the plan, TVA shall complete the Projects described in this Section according to the approved plan and schedule.

IV. <u>Clean/Renewable Energy Projects</u>

A. Within 120 days from the Effective Date of this Compliance Agreement TVA shall submit to EPA for review and approval pursuant to Section V.J (Review and Approval of Submittals) of this Compliance Agreement a plan for the reduction of GHG and other pollutants through the Clean/Renewable Energy Projects listed below. TVA shall spend no less than $40 million in Project Dollars performing the Clean/Renewable Energy Projects listed below within five years of the date of plan approval. For purposes of this Appendix, "renewable energy" means energy from solar, wind, biogas, landfill gas, digester gas from wastewater treatment facilities, geothermal, hydrokinetic sources, renewable biomass, and biofuels derived from renewable sources, or incremental increases in hydro generation after 1994.

B. Nothing in this Appendix is intended to preclude TVA from utilizing any GHG reductions or avoided emissions achieved through implementation of the Clean/Renewable Energy Projects to satisfy any future federal or state legislative or regulatory requirements requiring the avoidance, reduction or offset of GHG emissions from any TVA System Unit or plant.

C. TVA shall describe in the plans submitted to EPA for review and approval, how TVA shall maintain the emissions avoided or reduced for the Projects it

implements as part of the Clean/Renewable Energy Projects.

D. The plan required to be submitted pursuant to this Section of this Appendix, shall also satisfy the following criteria:

1. Describe how the proposed Projects in the plan are consistent with the requirements of this Section and the Compliance Agreement, and how the Projects will result in the emission reductions projected to be reduced for GHGs (expressed in CO_2e), SO_2, NO_x and Hg pursuant to this Section.

2. Include a budget and schedule for completing the Clean/Renewable Energy Projects on a phased schedule, and the supporting methodologies and calculations for the budget.

3. Describe the methodology and include any calculations that TVA proposes to use in order to document the emission reductions associated with any proposed Project to be implemented as part of this Section.

E. Upon EPA's approval of the plan, TVA shall complete the Clean/Renewable Energy Projects according to the approved plan and schedule.

F. Clean/Renewable Energy Projects Include:

1. Waste Heat Recovery: TVA will use its Advanced Lower Temperature Power Cycle (ALTPC) or other waste heat conversion technologies, to recover waste heat from an industrial process to generate approximately 5 MW of clean energy. TVA will expend $7-$10 million in Project Dollars within five years of the date of plan approval to implement this Project.

2. Electric Vehicle and Plug-in Hybrid Electric Vehicle Solar Charging Stations: TVA will develop and provide solar energy for vehicle battery re-charging stations across the Tennessee Valley. TVA will expend $1-3 million in Project Dollars within five years of the date of plan approval to implement this Project.

3. Solar Photovoltaic (PV) Installations: TVA will install at least 500 kWs of solar PV at TVA facilities, TVA direct serve customer locations, or another government-owned facility, and shall maintain them for a minimum of ten (10) years following approval of the plan. TVA will expend $2-4 million in Project Dollars within five years of the date of plan approval to implement this Project and secure these commitments.

4. Landfill (or Wastewater Treatment) Methane Gas Capture and Generation: TVA will enter long-term power purchase agreements

to develop and secure the generation of approximately 10 MW of renewable power from landfill gas or digester gas from wastewater treatment facilities. TVA will expend $16 to $30 million in Project Dollars within five years of the date of plan approval to implement these Projects.

V. Land and Ecological Restoration & Biological Carbon Sequestration

A. Within two hundred forty (240) days from the Effective Date of this Compliance Agreement, TVA shall pay $1 million to the National Park Service in accordance with the Park System Resource Protection Act, 16 U.S.C. § 19jj, to be used for the restoration of land, watersheds, vegetation, and forests using adaptive management techniques designed to improve ecosystem health and mitigate harmful effects from air pollution. This may include reforestation or restoration of native species and acquisition of equivalent resources and support for collaborative initiatives with state and local agencies and other stakeholders to develop plans to assure resource protection over the long-term. Projects will focus on one or more of the following Class I areas: Mammoth Cave National Park and Great Smoky Mountains National Park.

B. Instructions for transferring funds will be provided to TVA by the National Park Service. Notwithstanding Section V. A of this Appendix, payment of funds is not due until ten (10) days after receipt of payment instructions. Upon payment of the required funds into the Natural Resource Damage and Assessment Fund, TVA shall have no further responsibilities regarding the implementation of any project selected by the National Park Service in connection with this provision.

C. Within two hundred forty (240) days from the Effective Date of this Compliance Agreement, TVA shall pay $1 million to the United States Forest Service in accordance with 16 U.S.C. § 579c, for the improvement, protection, or rehabilitation of lands under the administration of the United States Forest Service. Projects will focus on one or more of the following Class I areas: Cohutta Wilderness Area, Linville Gorge Wilderness Area, Shining Rock Wilderness Area, Sipsey Wilderness Area, and Joyce Kilmer-Slickrock Wilderness Area.

D. Payment of the amount specified in the preceding paragraph shall be made to the Forest Service pursuant to payment instructions provided to TVA. Notwithstanding Section V. A of this Appendix, payment of funds by TVA is not due until ten (10) days after receipt of payment instructions. Upon payment of the required funds, TVA shall have no further responsibilities regarding the implementation of any project selected by the Forest Service in connection with this provision.

Exhibit 1 to: Federal Facilities Compliance Agreement Between the United States Environmental Protection Agency and the Tennessee Valley Authority, Docket No. CAA-04-2010-1760

Alabama *et al.* v. Tennessee Valley Auth., Nos. 3:11-cv-00170 and 171 (consolidated) (E.D. Tenn. filed April 14, 2011) (Consent Decree)

NOTE: Exhibit 1 to the Federal Facilities Compliance Agreement is the Consent Decree. In order to avoid unnecessary duplication, the Consent Decree is not included as an attachment to this copy of Federal Facilities Compliance Agreement.

Exhibit 2 to: Consent Decree, Alabama *et al*. v. Tennessee Valley Auth., No. 3:11-cv-00170 and 171 (consolidated) (E.D. Tenn. filed April 14, 2011)

In re Tennessee Valley Auth., Docket No. CAA-04-2010-1528(b) (Consent Agreement and Final Order)

(NOTE: The Consent Agreement and Final Order lists the Federal Facilities Compliance Agreement as an attachment to the Consent Agreement and Final Order. The Federal Facilities Compliance Agreement appears as Exhibit 1 to the Consent Decree. In order to avoid unnecessary duplication, the Federal Facilities Compliance Agreement is not included as an attachment to this copy of Consent Agreement and Final Order.)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
EPA REGION 4

IN THE MATTER OF:	)	
	)	
	)	
TENNESSEE VALLEY AUTHORITY	)	Consent Agreement and Final Order
	)	
400 West Summit Hill Drive	)	
Knoxville, Tennessee 37092	)	
	)	
Allen, Bull Run, Colbert, Cumberland,	)	Docket No. CAA-04-2010-1528(b)
John Sevier, Kingston, Paradise,	)	
and Shawnee Fossil Plants	)	
	)	
Respondent.	)	
	)	

CONSENT AGREEMENT AND FINAL ORDER

I. Nature of the Action/Jurisdictional Statements

1. This is a civil administrative penalty proceeding pursuant to Section 113(d) of the Clean Air Act ("CAA" or "Act"), 42 U.S.C. § 7413(d), and the Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation/Termination or Suspension of Permits (Consolidated Rules), 40 C.F.R. Part 22, for alleged violations of (a) the Prevention of Significant Deterioration ("PSD") and Nonattainment New Source Review ("Nonattainment NSR") provisions of the Act, its implementing regulations, and the relevant portions of the federally approved PSD provisions in the State Implementation Plans ("SIPs") for Alabama, Kentucky, and Tennessee, (b) the New Source Performance Standards (NSPS), Section 111 of the Act, 42 U.S.C. § 7411, and (c) Title V of the Act, 42 U.S.C. § 7661-7661f, and the federally approved state regulations implementing the federal Title V program. Complainant is the Director, Air, Pesticides and Toxics Management Division, Region 4, United

States Environmental Protection Agency ("EPA"). Respondent is the Tennessee Valley Authority ("TVA"), which owns and operates facilities located in Region 4.

2. As further described herein, Complainant alleges that Respondent modified and thereafter operated, thirteen coal-fired electric generating units at eight facilities located in Alabama, Kentucky, and Tennessee without first obtaining appropriate permits authorizing the modification and subsequent operation of such units, and without installing and employing appropriate pollution control technology to control emissions of nitrogen oxides ("NO_x"), sulfur dioxide ("SO_2"), and particular matter ("PM"), as the Act requires.

3. Complainant and Respondent (collectively referred to herein as "the Parties") have conferred for the purpose of settlement pursuant to 40 C.F.R. § 22.18(b)(2) and desire to resolve this matter and settle the allegations described herein without further litigation or adjudication. Therefore, before the taking of any additional testimony or evidence, the making of any additional arguments, without further adjudication of any issue of fact or law in this matter, and upon consent and agreement of the Parties, this Consent Agreement and Final Order ("CAFO") will simultaneously commence and conclude this matter as authorized by 40 C.F.R. § 22.13(b)(2).

4. The authority to take action under Section 113(d) of the Clean Air Act, 42 U.S.C. § 7413(d), is vested in the Administrator. The Administrator has delegated this authority to the Regional Administrator, Region 4, by EPA Delegation 7-6-A. The Regional Administrator, Region 4, has redelegated this authority to the Director, Air, Pesticides and Toxics Management Division, by EPA Region 4 Delegation 7-6-A. Pursuant to that delegation, the Director of the Air, Pesticides and Toxics Management Division has the authority to commence an enforcement action as Complainant in this matter.

5. EPA has provided TVA and the States of Alabama, Kentucky, and Tennessee actual notice of the alleged violations in accordance with Section 113(a)(1) of the Clean Air Act, 42 U.S.C. § 7413(a)(1).

6. Consistent with Section 113(d) of the CAA, 42 U.S.C. § 7413(d), the requisite joint determination was made by EPA and the United States Department of Justice.

7. Respondent is a corporate agency and instrumentality of the United States, created and existing pursuant to the Tennessee Valley Authority Act of 1933, 16 U.S.C. §§ 831-831ee.

8. Respondent is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

9. Respondent owns and operates 59 coal-fired electric generating units at eleven facilities located in Alabama, Kentucky, and Tennessee.

10. In 1999, EPA issued TVA an administrative compliance order alleging, inter alia, that TVA violated the PSD and Nonattainment NSR programs of the Clean Air Act, its implementing regulations, and the relevant SIPs. The administrative compliance order was subsequently amended several times, including on April 10, 2000.

11. On September 15, 2000, the United States Environmental Appeals Board ("EAB") issued a Final Order on Reconsideration, In re Tennessee Valley Auth., 9 E.A.D. 357 (EAB 2000), in which the EAB sustained in part and vacated in part the allegations in the amended administrative compliance order.

12. In that Final Order on Reconsideration, the EAB concluded that TVA had violated the PSD program for NO_x, SO_2, and/or PM at the following units: Allen Unit 3, located at the Allen Fossil Plant in Memphis, Tennessee; Bull Run Unit 1, located at the Bull Run Fossil Plant near Oak Ridge, Tennessee; Colbert Unit 5, located at the Colbert Fossil Plant in Tuscumbia,

Alabama; Cumberland Units 1 and 2, located at the Cumberland Fossil Plant in Cumberland City, Tennessee; John Sevier Unit 3, located at the John Sevier Fossil Plant near Rogersville, Tennessee; Kingston Units 6 and 8, located at the Kingston Fossil Plant near Kingston, Tennessee; Paradise Units 1, 2, and 3, located at the Paradise Fossil Plant in Drakesboro, Kentucky; and Shawnee Units 1 and 4, located at the Shawnee Fossil Plant near Paducah, Kentucky. See 9 E.A.D. at 451-52 (and 9 E.A.D. at 451, Chart No. 6).

13. In that Final Order on Reconsideration, the EAB concluded that Respondent had violated the federally approved and enforceable Nonattainment NSR provisions of the Alabama SIP for SO_2 and the NSPS program for NO_x, SO_2, and PM at Colbert Unit 5. See 9 E.A.D. at 451 n. 110; 9 E.A.D. at 452-58.

14. TVA petitioned for review of the administrative compliance order and the EAB's Final Order on Reconsideration in the United States Court of Appeals for the Eleventh Circuit, which concluded that EPA's administrative proceedings, and the CAA provisions under which the order was issued, violated due process. Tennessee Valley Auth. v. Whitman, 336 F.3d 1236, 1244, 1260 (11th Cir. 2003), cert. denied, 541 U.S. 1030 (2004). See Brief for Respondent in Opposition to a Writ of Certiorari ("Brief for Respondent") at 4, National Parks Conservation Ass'n, et al. v. Tennessee Valley Auth., 554 U.S. 917 (2008) (No. 07-867). The court then held that the unconstitutionality of the CAA provision meant that EPA's order was not a "final agency action" and that the court of appeals therefore lacked jurisdiction to review it. See Brief for Respondent at 4 (citing Whitman, 336 F.3d at 1248, 1260).

II. Legal Background

15. The Clean Air Act is designed to protect and enhance the quality of the nation's air so as to promote the public health and welfare and the productive capacity of its population. 42 U.S.C. § 7401(b)(1).

The National Ambient Air Quality Standards

16. Section 109 of the Act, 42 U.S.C. § 7409, requires the Administrator to promulgate regulations establishing primary and secondary national ambient air quality standards ("NAAQS") for those air pollutants ("criteria pollutants") for which air quality criteria have been issued pursuant to Section 108 of the Act, 42 U.S.C. § 7408. The primary NAAQS are to be adequate to protect the public health with an adequate margin of safety, and the secondary NAAQS are to be adequate to protect the public welfare from any known or anticipated adverse effects associated with the presence of the air pollutant in the ambient air.

17. Under Section 107(d) of the Act, 42 U.S.C. § 7407(d), each state is required to designate those areas within its boundaries where the air quality is better or worse than the NAAQS for each criteria pollutant, or where the air quality cannot be classified due to insufficient data. An area that meets the NAAQS for a particular pollutant is termed an "attainment" area. An area that does not meet the NAAQS is termed a "nonattainment" area. An area that cannot be classified due to insufficient data is "unclassifiable."

18. Pursuant to Section 110 of the Act, 42 U.S.C. § 7410, each state must adopt and submit to EPA for approval a SIP that provides for the attainment and maintenance of the NAAQS. Under Section 110(a)(2), 42 U.S.C. § 7410(a)(2), each SIP must include a permit program to regulate the modification and construction of any stationary source of air pollution,

including stationary sources in attainment and nonattainment areas of the state, as necessary to assure the NAAQS are achieved.

19. Upon approval, state SIP requirements are federally enforceable under Section 113 of the Act, 42 U.S.C. § 7413.

The Prevention of Significant Deterioration Requirements

20. Part C of the Act, 42 U.S.C. §§ 7470-7492, sets forth requirements for the prevention of significant deterioration ("PSD") of air quality in those areas designated as either attainment or unclassifiable for purposes of meeting the NAAQS. These requirements are designed to protect public health and welfare, to assure that economic growth will occur in a manner consistent with the preservation of existing clean air resources, and to assure that any decision to permit increased air pollution is made only after careful evaluation of all the consequences of such decision and after public participation in the decision making process. These provisions are referred to herein as the "PSD program."

21. Section 161 of the Act, 42 U.S.C. § 7471, requires that each applicable SIP contain a PSD program.

22. Section 165 of the Act, 42 U.S.C. § 7475, among other things, prohibits the construction and operation of a "major emitting facility" in an area designated as attainment unless a permit has been issued that comports with the requirements of Section 165 of the Act, and the facility employs best available control technology ("BACT") for each pollutant subject to regulation under the Act that is emitted from the facility.

23. Section 169(1) of the Act, 42 U.S.C. § 7479(1), designates fossil fuel-fired steam electric plants of more than two hundred and fifty million British Thermal Units ("BTU's") per

hour heat input and that emit or have the potential to emit one hundred tons per year or more of any pollutant to be "major emitting facilities."

24. Section 169(2)(C) of the Act, 42 U.S.C. § 7479(2)(C), defines construction as including "modification" (as defined in Section 111(a) of the Act). "Modification" is defined in Section 111(a) of the Act, 42 U.S.C. § 7411(a), to be "any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted."

25. Applicable federal regulations codified at 40 C.F.R. Parts 51 and 52, as well as those in the federally approved SIPs for Alabama, Kentucky, and Tennessee (including Memphis/Shelby County) have at all times relevant to this CAFO prohibited a major stationary source from constructing a major modification in an area designated as attainment without, among other things, first obtaining a PSD permit, undergoing a BACT determination, and applying BACT pursuant to such determination for each relevant pollutant. The definitions contained in the federal PSD regulations and in the relevant SIPs have at all relevant times defined "construction" to include any physical change or change in the method of operation which would result in a change in actual emissions. These regulations have at all times relevant to this CAFO also defined "major modification" to include a physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act. These regulations have at all times relevant to this CAFO defined "major stationary source" to include fossil fuel-fired steam electric plants of more than 250 million BTUs per hour heat input. These regulations have at all times relevant to this CAFO defined "significant," in reference to a net emissions increase, to

mean a rate of emissions that would equal or exceed 40 tons per year each for NO_x and SO_2, and 25 tons per year of PM emissions.

Nonattainment New Source Review Requirements

26. Part D of Title I of the Act, 42 U.S.C §§ 7501-7515, sets forth provisions for new source review requirements for areas designated as being in nonattainment with the NAAQS. These provisions are referred to herein as the "Nonattainment NSR program." The Nonattainment NSR program is intended to reduce emissions of air pollutants in areas that have not attained the NAAQS, so that the areas make progress towards meeting the NAAQS.

27. Under Section 172(c)(5) of the Nonattainment NSR provisions of the Act, 42 U.S.C. § 7502(c)(5), each state is required to adopt Nonattainment NSR SIP rules that include provisions requiring permits to conform to the requirements of Section 173 of the Act, 42 U.S.C. § 7503, for the construction and operation of modified major stationary sources within nonattainment areas. Section 173 of the Act, in turn, sets forth a series of minimum requirements for the issuance of permits for major modifications to major stationary sources within nonattainment areas.

28. Section 173(a) of the Act, 42 U.S.C § 7503, provides that construction and operating permits my be issued if, among other things: (a) sufficient offsetting emission reductions have been obtained to reduce existing emissions to the point where reasonable further progress towards meeting the national ambient air quality standards is maintained; and (b) the pollution controls to be employed will reduce emissions to the "lowest achievable emission rate" ("LAER").

29. Applicable federal regulations codified at 40 C.F.R. Part 51, as well as the Nonattainment NSR program in the federally approved SIP for Alabama, have at all times

relevant to this CAFO prohibited a major stationary source from constructing a major modification in an area designated as nonattainment without, among other things, applying for and obtaining a Nonattainment NSR permit, obtaining sufficient offsetting emission reductions, and installing and operating state-of-the-art pollution control technology to comply with LAER. These regulations have at all times relevant to this CAFO also defined "major modification" to include "a physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under [the Clean Air Act]." These regulations have at all times relevant to this CAFO defined "major stationary source" to include fossil fuel-fired steam electric plants of more than 250 million BTUs per hour heat input.

The New Source Performance Standards

30. Section 111 of the Act, 42 U.S.C. § 7411, requires the Administrator to publish a list of categories of stationary sources that emit or may emit any air pollutant and to promulgate regulations establishing federal standards of performance for new sources ("NSPS") of air pollutants within each of these categories.

31. Section 111(a)(2), 42 U.S.C. § 7411(a)(2), defines new sources to include existing sources that are modified. Section 111(a)(4), 42 U.S.C. § 7411(a)(4), defines a modification as any physical or operational change that increases the amount of any air pollutant emitted by such source or results in the emission of any air pollutant not previously emitted.

32. Section 111(e), 42 U.S.C. § 7411(e), prohibits an owner or operator of a new or modified source from operating that source in violation of an NSPS after the effective date of the applicable NSPS to such source.

33. 40 C.F.R. § 60.1 states that the provisions of 40 C.F.R. Part 60 apply to the owner or operator of any stationary source that contains an affected facility, the construction or modification of which is commenced after the publication in Part 60 of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

34. 40 C.F.R. § 60.2 defines "affected facility" as any apparatus to which a standard is applicable.

35. The NSPS applicable to "electric utility steam generating units" is codified at 40 C.F.R. Part 60 subpart Da.

36. The "affected facility" to which subpart Da applies is an "electric utility steam generating unit" that is capable of combusting more than 73 megawatts (250 BTU/hour) heat input of fossil fuel (either alone or in combination with any other fuel) and for which construction or modification is commenced after September 19, 1978. 40 C.F.R. § 60.40Da.

37. An "electric utility steam generating unit" means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale. 40 C.F.R. § 60.41Da.

38. Pursuant to 40 C.F.R. § 60.14, upon modification, an existing facility becomes an "affected facility" for which the applicable NSPS must be satisfied.

Title V Requirements

39. Title V of the Act, 42 U.S.C. §§ 7661-7661f, establishes an operating permit program for certain sources, including "major sources." The purpose of Title V is, among other things, to ensure that all "applicable requirements" for compliance with the Act, including PSD, are collected in one place.

40. A "major source" for purposes of Title V is defined, among other things, as a source with a potential to emit greater than 100 tons per year of any air pollutant. 42 U.S.C. § 7661(2).

41. Pursuant to Section 502(b), 42 U.S.C. § 7661a(b), EPA promulgated regulations to implement the Title V program, which are codified at 40 C.F.R. Parts 70 and 71.

42. The Alabama Title V operating permit program was granted final approval by EPA on November 8, 2001, and is codified at Ala. Admin. Code ch. 335-3-16. The Kentucky Title V operating permit program was granted final approval by EPA on November 30, 2001, and is codified at 401 Ky. Admin. Regs. 52:020. The Tennessee Title V operating permit program was granted final approval by EPA on November 30, 2001, and is codified at Tenn. Comp. R. & Regs. R. 1200-3-9-.02.

43. Section 502(a) of the Act, 42 U.S.C. § 7661a(a), and the approved Title V programs for Alabama, Kentucky, and Tennessee, have at all relevant times made it unlawful for any person to operate a major source except in compliance with a permit issued by a permitting authority under Title V.

44. Section 503(c) of the Act, 42 U.S.C § 7661b(c), the Title V regulations codified at 40 C.F.R. §§ 70.5(a), (c), and (d), and the approved Title V programs for Alabama, Kentucky, and Tennessee, have at all relevant times required the owner or operator of a source to submit an application for a Title V permit that is timely and complete and includes, among other things: the citations and descriptions of all requirements applicable to the source (including any requirement to meet BACT pursuant to PSD); a description of, and compliance plan for, requirements for which the source is not in compliance; and a certification by a responsible official of the truth, accuracy, and completeness of the application.

45. Section 504(a), 42 U.S.C. § 7661c(a), 40 C.F.R. § 70.6(a)(1), and the approved Title V programs for Alabama, Kentucky, and Tennessee, have at all times relevant to this CAFO required that each Title V permit include, among other things, enforceable emission limitations and such other conditions as are necessary to assure compliance with applicable requirements of the Clean Air Act and the requirements of the applicable SIP, including any applicable PSD and Nonattainment NSR requirement to comply with an emission rate that meets BACT and LAER.

State Implementation Plan Requirements

46. A state may comply with sections 110, 161, and 172(c) of the Act, 42 U.S.C. §§ 7410, 7471, 7502(c), by having its own PSD and Nonattainment NSR regulations approved by EPA as part of its SIP, which must be at least as stringent as those set forth at 40 C.F.R. §§ 51.165 and 51.166, and Appendix S to Part 51.

47. EPA has promulgated two largely identical sets of regulations to implement the PSD program. One set, found at 40 C.F.R. § 52.21, contains EPA's own federal PSD program, which applies in areas without a SIP-approved state PSD program. The other set of regulations, found at 40 C.F.R. § 51.166, contains requirements that state PSD programs must meet to be approved as part of a SIP. EPA has promulgated one set of regulations to implement the Nonattainment NSR program, codified at 40 C.F.R. § 51.165, which contains requirements that state Nonattainment NSR programs must meet to be approved as part of a SIP.

48. Pursuant to the Act and federal regulations codified at 40 C.F.R. § 52.21, no construction or operation of a modification of a major stationary source can occur in an attainment area without first obtaining a permit. See 42 U.S.C. § 7475; 40 C.F.R. § 52.21.

49. Pursuant to the Act, and at all times relevant to this CAFO, the Alabama SIP requires that no construction or operation of a modification of a major stationary source occur in

an attainment or nonattainment area without first obtaining a permit. See Ala. Admin. Code r. 335-3-14-.04; Ala. Admin. Code r. 335-3-14-.05.

50. Pursuant to the Act, and at all times relevant to this CAFO, the Kentucky SIP requires that no construction or operation of a modification of a major stationary source occur in an attainment area without first obtaining a permit. See 401 Ky. Admin. Regs. 51:017.

51. Pursuant to the Act, and at all times relevant to this CAFO, the Tennessee SIP requires that no construction or operation of a modification of a major stationary source occur in an attainment area without first obtaining a permit. See Tenn. Comp. R. & Regs. R.1200-3-9-.01(4). With regard to the City of Memphis, Tennessee, and Shelby County, Tennessee, the State of Tennessee has issued a Certificate of Exemption to the local governments pursuant to Tenn. Code. Ann. § 68-201-115. During all times relevant to this CAFO, this Certificate of Exemption was recognized by EPA. 40 C.F.R. § 52.2220 (Table 2). This Certificate of Exemption (hereinafter referred to as "Memphis/Shelby County local program") incorporates all relevant provisions of the Tennessee SIP.

52. The SIP provisions identified in Paragraphs 49-51, above, are federally enforceable pursuant to Sections 110 and 113 of the Act, 42 U.S.C. §§ 7410 and 7413.

Enforcement Provisions

53. Sections 113(a)(1) and (3), 42 U.S.C. §§ 7413(a)(1) and (3), provide that the Administrator may bring an administrative penalty action pursuant to Section 113(d) of the Act, 42 U.S.C. § 7413(d), whenever, on the basis of any information available, the Administrator finds that any person has violated or is in violation of any requirement or prohibition of, inter alia, the Prevention of Significant Deterioration provisions of Section 165(a) of the Act, 42

U.S.C. § 7475(a); the federally approved PSD and Nonattainment NSR provisions of the relevant SIP; and Title V of the Act, 42 U.S.C. §§ 7661 -7661f, or any rule or permit issued thereunder.

54. Section 113(d), 42 U.S.C. § 7413(d), authorizes the Administrator to assess a civil administrative penalty against any person of up to $25,000 per day for each violation occurring before January 31, 1997; $27,500 per day for each such violation occurring on or after January 31, 1997; $32,500 per day for each such violation occurring after March 15, 2004; and $37,500 per day for each such violation occurring after January 12, 2009. See 40 C.F.R. Part 19.

III. Factual Allegations

The Allen Fossil Plant and Allen Unit 3

55. At all times relevant to this CAFO, Respondent was the owner and operator of the Allen Fossil Plant, a fossil fuel-fired electric utility steam generating plant located in Shelby County, Memphis, Tennessee. At all times relevant to this CAFO, the Allen Fossil Plant was located in an area classified as attainment for NO_2, SO_2, and PM_{10}. At all times relevant to this CAFO, the Allen Fossil Plant was within the jurisdiction of the Memphis/Shelby County local program. At all times relevant to this CAFO, the Allen Fossil Plant was a "major emitting facility" and a "major stationary source" within the meaning of the Act, its implementing regulations, and the applicable PSD provisions of the Memphis/Shelby County local program.

56. During a three-month period from 1992 through 1993, Respondent performed the following project at Allen Unit 3: replaced several boiler components, including the existing horizontal reheater with a redesigned reheater.

The Bull Run Fossil Plant and Bull Run Unit 1

57. At all times relevant to this CAFO, Respondent was the owner and operator of the Bull Run Fossil Plant, a fossil fuel-fired electric utility steam generating plant located in

Anderson County, Clinton, Tennessee. At all times relevant to this CAFO, the Bull Run Fossil Plant was located in an area classified as attainment for NO_2, SO_2, and PM_{10}. At all times relevant to this CAFO, Tennessee had a SIP-approved PSD program governing PSD permitting. At all times relevant to this CAFO, the Bull Run Fossil Plant was a "major emitting facility" and "major stationary source" within the meaning of the Act, its implementing regulations, and the applicable PSD provisions of the Tennessee SIP.

58. During a three-month period in 1988, Respondent performed the following project at Bull Run Unit 1: removed and replaced over 67 miles of tubing from the economizer and removed and replaced over 58,000 feet of tubing from the secondary superheater.

The Colbert Fossil Plant and Colbert Unit 5

59. At all times relevant to this CAFO, Respondent was the owner and operator of the Colbert Fossil Plant, a fossil fuel-fired electric utility steam generating plant located in Colbert County, Tuscumbia, Alabama. At all times relevant to this CAFO, the Colbert Fossil Plant was located in an area classified as attainment for NO_2 and TSP/PM_{10}. At all times relevant to this CAFO, the Colbert Fossil Plant was located in an area classified as nonattainment for SO_2. At all times relevant to this CAFO, Alabama had a SIP-approved PSD and Nonattainment NSR program governing PSD and Nonattainment NSR permitting respectively. At all times relevant to this CAFO, the Colbert Fossil Plant was a "major emitting facility" and a "major stationary source," and Colbert Unit 5 was an "electric utility steam generating unit," within the meaning of the Act, its implementing regulations, and the applicable PSD and Nonattainment NSR provisions of the Alabama SIP.

60. During a thirteen-month period from 1982 through 1983, Respondent performed the following project at Colbert Unit 5: replaced the waterwalls and horizontal reheater, modified

the startup system, modified the superheater by adding wingwalls in the furnace, replaced the gas proportioning dampers, replaced the windbox, redesigned and replaced the control system, and converted the unit from forced draft to balanced draft operation.

The Cumberland Fossil Plant and Cumberland Units 1 and 2

61. At all times relevant to this CAFO, Respondent was the owner and operator of the Cumberland Fossil Plant, a fossil fuel-fired electric utility steam generating plant located in Stewart County, Cumberland City, Tennessee. At all times relevant to this CAFO, the Cumberland Fossil Plant was located in an area classified as attainment for NO_2, SO_2, and PM_{10}. At all times relevant to this CAFO, Tennessee had a SIP-approved PSD program governing PSD permitting. At all times relevant to this CAFO, the Cumberland Fossil Plant was a "major emitting facility" and "major stationary source" within the meaning of the Act, its implementing regulations, and the applicable PSD provisions of the Tennessee SIP.

62. During a three-month period in 1994, Respondent performed the following project at Cumberland Unit 2: replaced and redesigned the secondary superheater outlet headers, replaced the secondary superheater pendant elements, and replaced the lower slope and lower waterwalls. During a three-month period in 1996, Respondent performed the following project at Cumberland Unit 1: replaced and redesigned the secondary superheater outlet headers, replaced the secondary superheater pendant elements, and replaced the lower slope and lower waterwalls.

The John Sevier Fossil Plant and John Sevier Unit 3

63. At all times relevant to this CAFO, Respondent was the owner and operator of the John Sevier Fossil Plant, a fossil fuel-fired electric utility steam generating plant located in Hawkins County, Rogersville, Tennessee. At all times relevant to this CAFO, the John Sevier

Fossil Plant was located in an area classified as attainment for NO_2, SO_2, and PM_{10}. At all times relevant to this CAFO, Tennessee had a SIP-approved PSD program governing PSD permitting. At all times relevant to this CAFO, the John Sevier Fossil Plant was a "major emitting facility" and "major stationary source" within the meaning of the Act, its implementing regulations, and the applicable PSD provisions of the Tennessee SIP.

64. During a two-month period in 1986, Respondent performed the following project at John Sevier Unit 3: replaced the superheater platen elements, replaced all burner tube panels, and replaced the waterwalls in the front, rear, and sidewalls.

The Kingston Fossil Plant and Kingston Units 6 and 8

65. At all times relevant to this CAFO, Respondent was the owner and operator of the Kingston Fossil Plant, a fossil fuel-fired electric utility steam generating plant located in Roane County, Kingston, Tennessee. At all times relevant to this CAFO, the Kingston Fossil Plant was located in an area classified as attainment for NO_2, SO_2, and PM_{10}. At all times relevant to this CAFO, Tennessee had a SIP-approved PSD program governing PSD permitting. At all times relevant to this CAFO, the Kingston Fossil Plant was a "major emitting facility" and "major stationary source" within the meaning of the Act, its implementing regulations, and the applicable PSD provisions of the Tennessee SIP.

66. During a two-month period in 1989, Respondent performed the following project at Kingston Unit 6: replaced all reheater and superheater intermediate pendant elements, and replaced the waterwalls of the superheater and reheater. During a three-month period from 1989 through 1990, Respondent performed the following project at Kingston Unit 8: replaced all reheater and superheater intermediate pendant elements, and replaced the waterwalls of the superheater and reheater.

The Paradise Fossil Plant and Paradise Units 1-3

67. At all times relevant to this CAFO, Respondent was the owner and operator of the Paradise Fossil Plant, a fossil fuel-fired electric utility steam generating plant located in Muhlenburg County, Drakesboro, Kentucky. At all times relevant to this CAFO, the Paradise Fossil Plant was located in an area classified as attainment for NO_2. At all times relevant to this CAFO, Kentucky did not have a SIP-approved PSD program governing PSD permitting. At all times relevant to this CAFO, the federal PSD regulations codified at 40 C.F.R. § 52.21 governed PSD permitting in Kentucky. At all times relevant to this CAFO, the Paradise Fossil Plant was a "major emitting facility" and "major stationary source" within the meaning of the Act, its implementing regulations, and the applicable federal PSD provisions codified at 40 C.F.R. § 52.21.

68. During a 6 month-period in 1985, Respondent performed the following project at Paradise Unit 1: replaced all 14 cyclone burners, and cut out and replaced the lower waterwall below 465 feet, including the lower headers and floor. During a four-month period from 1985 through 1986, Respondent performed the following project at Paradise Unit 2: replaced all 14 cyclone burners, and cut out and replaced the lower waterwall below 465 feet, including the lower headers and floor. During a six-month period from 1984 through 1985, Respondent performed the following project at Paradise Unit 3: replaced all 23 cyclone burners, and cut out and replaced the waterwalls between 418 feet and 501 feet.

The Shawnee Fossil Plant and Shawnee Units 1 and 4

69. At all times relevant to this CAFO, Respondent was the owner and operator of the Shawnee Fossil Plant, a fossil fuel-fired electric utility steam generating plant located in McCracken County, Paducah, Kentucky. At all times relevant to this CAFO, the Shawnee Fossil

Plant was located in an area classified as attainment for NO_2 and SO_2. At all times relevant to this CAFO, Kentucky had a SIP-approved PSD program governing PSD permitting. At all times relevant to this CAFO, the Shawnee Fossil Plant was a "major emitting facility" and "major stationary source" within the meaning of the Act, its implementing regulations, and the applicable PSD provisions of the Kentucky SIP.

70. During a two-month period from 1989 through 1990, Respondent performed the following project at Shawnee Unit 1: replaced the secondary superheater and reheater pendant elements and crossover elements, including the header stubs. During a four-month period in 1990, Respondent performed the following project at Shawnee Unit 2: replaced the secondary superheater and reheater pendant elements and crossover elements, including the header stubs.

IV. Alleged Violations

Alleged PSD Violations

71. The projects identified in Paragraphs 56, 58, 60, 62, 64, 66, 68, and 70 pertaining to Allen Unit 3, Bull Run Unit 1, Colbert Unit 5, Cumberland Units 1 and 2, John Sevier Unit 3, Kingston Units 6 and 8, Paradise Units 1, 2, and 3, and Shawnee Units 1 and 4, are physical changes in and/or changes in the method of operation of these coal-fired electric generating units. Each such project identified in Paragraphs 56, 58, 60, 62, 64, 66, 68, and 70 at the aforementioned units resulted in a significant net emissions increase, as defined by the relevant PSD regulations, in NO_x, SO_2, and/or PM. With respect to Allen Unit 3, the project identified in Paragraph 56 resulted in a significant net emissions increase in NO_x and SO_2. With respect to Bull Run Unit 1, the project identified in Paragraph 58 resulted in a significant net emissions increase in NO_x and SO_2. With respect to Colbert Unit 5, the project identified in Paragraph 60 resulted in a significant net emissions increase in NO_x and PM. With respect to Cumberland

Units 1 and 2, the projects identified in Paragraph 62 resulted in a significant net emissions increase in NO_x. With respect to John Sevier Unit 3, the project identified in Paragraph 64 resulted in a significant net emissions increase in SO_2. With respect to Kingston Units 6 and 8, the projects identified in Paragraph 66 resulted in a significant net emissions increase in NO_x and SO_2. With respect to Paradise Units 1, 2, and 3, the projects identified in Paragraph 68 resulted in a significant net emissions increase in NO_x. And with respect to Shawnee Units 1 and 4, the projects identified in Paragraph 70 resulted in a significant net emissions increase in NO_x and SO_2.

72. Accordingly, the projects identified in Paragraphs 56, 58, 60, 62, 64, 66, 68, and 70 are major modifications within the meaning of the Act and the applicable PSD provisions, including the federal PSD requirements codified at 40 C.F.R. § 52.21 and the SIP-approved PSD programs for Alabama, Kentucky, and Tennessee (including the Memphis/Shelby County local program).

73. Respondent did not comply with the applicable PSD requirements in the relevant SIPs (for the projects identified in Paragraphs 56, 58, 60, 62, 64, 66, and 70) or the federal PSD program (for the projects identified in Paragraph 68) with respect to the major modifications at Allen Unit 3, Bull Run Unit 1, Colbert Unit 5, Cumberland Units 1 and 2, John Sevier Unit 3, Kingston Units 6 and 8, Paradise Units 1, 2, and 3, and Shawnee Units 1 and 4. Among other things, Respondent failed to obtain a PSD permit as required by the Act, the federal PSD program, and the Alabama SIP, the Kentucky SIP, and the Tennessee SIP (including the Memphis/Shelby County local program), prior to commencing construction and operation of the major modifications at the aforementioned units. Respondent did not undergo a BACT determination in connection with these major modifications. Respondent failed to install and

operate BACT for control of NO_x, SO_2, and/or PM, pursuant to such determination, as required by the Act, the federal PSD program, and the PSD-approved SIPs for Alabama, Kentucky, and Tennessee (including the Memphis/Shelby County local program).

74. Accordingly, Respondent has violated Section 165 of the Act, 40 C.F.R. § 52.21, the Alabama SIP, the Kentucky SIP, the Tennessee SIP, and the Memphis/Shelby County local program.

Alleged Nonattainment NSR and NSPS Violations at Colbert Unit 5

75. The project identified in Paragraph 60 is a physical change in and/or change in the method of operation of Colbert Unit 5. The project identified in Paragraph 60 resulted in a significant net emissions increase in SO_2. The project identified in Paragraph 60 increased the hourly emission rate of NO_x, SO_2, and PM from Colbert Unit 5 above the maximum hourly emissions previously achieved.

76. The project identified in Paragraph 60 is a major modification within the meaning of the Act and the SIP-approved Nonattainment NSR program for Alabama.

77. Respondent did not comply with the applicable Nonattainment NSR requirements in the Alabama SIP. Among other things, Respondent failed to obtain a Nonattainment NSR permit as required by the Act and the Alabama SIP prior to commencing construction and operation of the major modification at Colbert Unit 5. Respondent did not undergo a LAER determination in connection with this major modification. Respondent failed to install and operate LAER for control of SO_2 pursuant to such determination, as required by the Act and the Alabama SIP.

78. Accordingly, Respondent violated the Act and the Alabama SIP.

79. The project identified in Paragraph 60 is a modification of an affected facility within the meaning of the Act and 40 C.F.R. Part 60.

80. Respondent failed to comply with the requirements of 40 C.F.R. Part 60 subparts A and Da for Colbert Unit 5 as an affected facility.

81. Accordingly, Respondent violated the Section 111(e) of the Act and 40 C.F.R. Part 60 subparts A and Da.

Alleged Title V Violations

82. As set forth above, Respondent commenced major modifications at Allen Unit 3, Bull Run Unit 1, Colbert Unit 5, Cumberland Units 1 and 2, John Sevier Unit 3, Kingston Units 6 and 8, Paradise Units 1, 2, and 3, and Shawnee Units 1 and 4. As a result, these modifications triggered the requirements to, inter alia, undergo a BACT/LAER determination, to obtain a PSD/Nonattainment NSR permit establishing emission limitations that meet BACT/LAER pursuant to such a determination, and to operate in compliance with such limitations. Respondent failed to satisfy these requirements.

83. Respondent failed to submit a complete application for a Title V operating permit for the Allen Fossil Plant, the Bull Run Fossil Plant, the Colbert Fossil Plant, the Cumberland Fossil Plant, the John Sevier Fossil Plant, the Kingston Fossil Plant, the Paradise Fossil Plant, and the Shawnee Fossil Plant and identify all applicable requirements, accurately certify compliance with such requirements, and contain a compliance plan for all applicable requirements for which Respondent's units were not in compliance with the Act (including the requirement to meet BACT/LAER pursuant to a BACT/LAER determination under PSD and Nonattainment NSR, and the applicable NSPS requirements of 40 C.F.R. Part 60 subpart A and Da for Colbert Unit 5). Respondent failed to obtain a proper or adequate Title V operating permit for the aforementioned facilities that contained emission limitations for NO_x, SO_2, and/or PM that met BACT/LAER pursuant to a BACT/LAER determination and the applicable

emission limitations in the NSPS for Colbert Unit 5. Respondent thereafter operated the modified units without meeting such limitations and without having a valid operating permit that required compliance with such limitations or that contained a compliance plan for all applicable requirements for which Respondent's units were not in compliance. Respondent's conduct violated Sections 502, 503, and 504 of the Act, 42 U.S.C. §§ 7661a, 7661b and 7661c; the regulations codified at 40 C.F.R. Part 70, including, but not limited to, 40 C.F.R. §§ 70.1(b), 70.5(a), (b) and (c), 70.6 and 70.7(b); and the federally approved Title V programs of Alabama, Kentucky, and Tennessee.

84. As provided in Section 113(d) of the Act, the violations set forth in Paragraphs 71-83 subject Respondent to civil administrative penalties of up to $25,000 per day for each violation occurring before January 31, 1997; $27,500 per day for each such violation occurring on or after January 31, 1997; $32,500 per day for each such violation occurring after March 15, 2004; and $37,500 per day for each such violation occurring after January 12, 2009.

V. Consent Agreement

85. Solely or purposes of this CAFO, and for no other purpose, as required by 40 C.F.R. § 22.18(b)(2), Respondent admits the jurisdictional allegations set forth in Paragraphs 1-14, above.

86. Solely for purposes of this CAFO, and for no other purpose, as required by 40 C.F.R. § 22.18(b)(2), Respondent neither admits nor denies the factual allegations set forth in Paragraphs 55-70, above.

87. Solely for purposes of this CAFO, and as referenced in the Federal Facilities Compliance Agreement Between the United States Environmental Protection Agency and the Tennessee Valley Authority, Docket No. CAA-04-2010-1760 ("Compliance Agreement")

(attached hereto as Exhibit A), and for no other purpose, as required by 40 C.F.R. § 22.18(b)(2), Respondent waives any right to contest the factual and legal allegations set forth above (although TVA in fact denies such legal allegations), its right to appeal the proposed final order accompanying this agreement, and its right to request a conference with the Administrator.

88. Respondent consents to the assessment of and agrees to pay the civil penalty as set forth in this CAFO. Based upon an analysis of the penalty assessment criteria in Section 113(e) of the Act, 42 U.S.C. § 7413(e), Complainant has determined that an appropriate civil penalty to settle this matter is $8,000,000.

89. Payment of the civil administrative penalty set forth in this CAFO shall resolve the alleged violations and factual issues contained herein, and EPA hereby releases Respondent from liability for the facts and violations alleged herein. This CAFO shall not otherwise affect any liability of Respondent, if any, to the United States. Other than as expressed herein, pursuant to 40 C.F.R. § 22.18(c), settlement of this matter shall not affect the right of EPA or the United States to pursue appropriate injunctive or other equitable relief or criminal sanctions for any violations of law. Neither EPA nor Complainant waives any right to bring an enforcement action against Respondent for violation of any federal or state statute, regulation, or permit, to initiate an action for imminent and substantial endangerment, or to pursue criminal enforcement for allegations of violations not contained in this CAFO. This paragraph does not affect Section V.H. (Resolution of Claims) of the Compliance Agreement.

90. Complainant and Respondent agree to settle this matter by their execution of this CAFO. The Parties agree that the settlement of this matter is in the public interest and that this CAFO, together with the Compliance Agreement, are consistent with the requirements of the Act.

VI. Final Order

91. Respondent shall pay a civil administrative penalty of EIGHT MILLION DOLLARS (**$8,000,000**) **within 30 days** of the effective date of the Compliance Agreement by wire transfer to the Federal Reserve Bank of New York with the following wire transfer content:

Federal Reserve Bank of New York
ABA: 021030004
Account Number: 68010727
SWIFT address: FRNYUS33
TIN: 52-0852695
33 Liberty St.
New York NY 10045

Field Tag 4200 of the Fedwire message should read: "D 68010727 Environmental Protection Agency"

92. At the time of payment, Respondent shall send a copy of the wire transfer authorization form and transaction record, together with a transmittal letter which shall state that the payment is for the civil administrative penalty owed pursuant to the Consent Agreement and Final Order in In re Tennessee Valley Authority, Docket No. CAA-04-2010-1528(b), to the following persons at the following addresses:

Regional Hearing Clerk
U.S. EPA – Region 4
61 Forsyth Street
Atlanta, Georgia 30303

Mr. Jason Dressler
Air, Pesticides and Toxics Management Division
Air and EPCRA Enforcement Branch
U.S. EPA - Region 4
61 Forsyth Street
Atlanta, Georgia 30303

Ms. Saundi Wilson (OEA)
U.S. EPA – Region 4
61 Forsyth Street
Atlanta, Georgia 30303

Ms. Ilana Saltzbart
U.S. EPA – Headquarters
Mail Code 2242A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

93. Pursuant to 31 U.S.C. § 3717, EPA is entitled to assess interest and penalties on debts owed to the United States and a charge to cover the cost of processing and handling a delinquent claim. Interest will therefore begin to accrue on the civil administrative penalty from the effective date of this CAFO, if the penalty is not paid by the date required. Interest will be assessed at the rate established by the Secretary of Treasury, pursuant to 31 U.S.C. § 3717. A charge will be assessed to cover the costs of debt collection, including processing and handling costs and attorney fees. In addition, a penalty charge of up to six percent per year compounded annually may be assessed on any portion of the debt that remains delinquent more than ninety (90) days after payment is due.

94. The penalty described in Paragraph 91, shall represent civil penalties assessed by Complainant within the meaning of Section 162(f) of the Internal Revenue Code, 26 U.S.C. § 162(f), and is not a tax-deductible expenditure for purposes of federal law. Respondent, as an agency and instrumentality of the United States, is not subject to federal or state taxation.

95. Complainant and Respondent shall bear their own costs and attorney fees in this matter.

96. This CAFO shall be binding upon Respondent, its successors and assigns.

97. The following individual is authorized to receive service for EPA in this proceeding:

Ms. Beverly A. Spagg, Chief
Air Enforcement and EPCRA Branch
Air, Pesticides and Toxics Management Division
U.S. EPA – Region 4
61 Forsyth Street
Atlanta, Georgia 30303

98. Each undersigned representative of the Parties to this CAFO certifies that he or she is fully authorized by the party represented to enter into this CAFO and legally bind that party to it.

99. This CAFO shall not relieve Respondent of its obligation to comply with all applicable provisions of federal, state, or local law, nor shall it be construed to be a ruling on, or determination of, any issue related to any federal, state, or local permit.

VII. Effective Date

100. The effective date of this CAFO shall be the date on which the Final Order is filed.

AGREED AND CONSENTED TO:

FOR COMPLAINANT:

Beverly H. Banister, Director
Air, Pesticides and Toxics
Management Division
U.S. Environmental Protection
Agency, Region 4

Date: 4/08/11

FOR RESPONDENT:

Anda Ray, Senior Vice President
Environment and Technology
Tennessee Valley Authority

Date: 04/14/11

APPROVED AND SO ORDERED this 15th day of June, 2011.

Susan B. Schub
Regional Judicial Officer
EPA, Region 4

Exhibit A to: In re Tennessee Valley Auth., Docket No. CAA-04-2010-1528(b) (Consent Agreement and Final Order)

Federal Facilities Compliance Agreement Between the United States Environmental Protection Agency and the Tennessee Valley Authority, Docket No. CAA-04-2010-1760

NOTE: Exhibit A to the Consent Agreement and Final Order is the Federal Facilities Compliance Agreement. In order to avoid unnecessary duplication, the Federal Facilities Compliance Agreement is not included as an attachment to this copy of the Consent Agreement and Final Order.