Washington State Regional Haze State Implementation Plan

Appendix B Supplement

Federal Land Managers' Comments and Ecology's Response to Comments

Contents

Section B-6 Overview of Appendix B Supplement

Section B-7 Copies of Documents

- Copy of Senate Bill 5769 (Chapter 180, Laws of 2011)
- Example Ecology letter to Federal Land Managers on need for additional consultation period dated May 5, 2011
- Ecology e-mail to Federal Land Managers to initiate formal consultation dated August 26, 2011

Section B-8 Ecology's Summary of the U.S. Department of Agriculture Forest Service's Comments and Ecology's Response

Section B-9 U.S. Department of Agriculture Forest Service's Comments

- September 23, 2011 letter from Jeff P. Walter

Section B-10 Ecology's Summary of the U.S. Department of the Interior National Parks Service's Comments and Ecology's Response

Section B-11 U.S. Department of the Interior National Parks Service's Comments

- September 29, 2011 letter from Carol McCoy

Section B-6 Overview of Appendix B Supplement

On April 29, 2011 Governor Christine Gregoire signed into law Senate Bill 5769 (SB 5769) (Chapter 180, Laws of 2011) affecting coal-fired energy production at the TransAlta power plant in Centralia. SB 5769 solidifies into law a collaborative agreement between the plant owner and employees, environmental groups, the Governor's Office, and the local community. The law requires the state's two coal boilers to meet specific greenhouse gas emission performance standards on a schedule specified in the law and requires the installation of Selective Non-Catalytic Reduction (SNCR) technology.

Ecology revised the June 18, 2010 TransAlta Best Available Retrofit Technology (BART) compliance order and Technical Support Document (TSD) to comply with the new law. Some items included in the revised BART compliance order and TSD from the law include:

- Installation of SNCR technology by January 1, 2013
- Compliance with greenhouse gas emission performance standard for:
    - One boiler by December 31, 2020
    - The remaining boiler by December 31, 2025
- Compliance with the greenhouse gas emission performance standard will not apply to the facility if the Department of Ecology "determines as a requirement of state or federal law or regulation that selective catalytic reduction technology must be installed on any of its boilers" (excerpt from SB 5769, Section 103(3)(c)(ii))

A copy of the new law is included in Section B-7.

On May 5, 2011 a letter was sent to the Federal Land Managers (FLMs) informing them of the law changes and that the Compliance order and technical support document would be changing to reflect the new law. An example of the letter in included in Section B-7.

On August 26, 2011Ecology distributed copies of a revised draft compliance order and technical support document for the TransAlta facility for formal FLMs consultation. Ecology asked the FLMs for an expedited consultation process to provide for issuance of a revised BART compliance order to TransAlta and submission of the revised compliance order and TSD to Environmental Protection Agency (EPA) as a revision to the state's Regional Haze (RH) State Implementation Plan (SIP) by the end of November. A copy of the e-mail is included in Section B-7.

Ecology held a formal consultation with the FLMs via conference call on September 12, 2011. The purpose of the meeting was to discuss to revised draft compliance order and technical support document for the TransAlta facility. The FLMs recognized the need for the expedited consultation and provided written comments quickly.

Section B-8 contains a summary of the comments received from the U.S. Department of Agriculture Forest Service (USDA-FS) and Ecology's response as required by the Regional Haze Rule (RHR)[1].

Copies of the formal written comments by the USDA-FS are included in Section B-9.

Section 10 contains a summary of the comments received from the U.S. Department of the Interior National Parks Service (USDI-NPS) and Ecology's response as required by the RHR [2].

Copies of the formal written comments by the USDI-NPS are included in Section B-11.

[1] 40 CFR 51.308(i)(3)
[2] 40 CFR 51.308(i)(3)

Section B-7 Copies of Documents

CERTIFICATION OF ENROLLMENT

ENGROSSED SECOND SUBSTITUTE SENATE BILL 5769

Chapter 180, Laws of 2011

62nd Legislature
2011 Regular Session

COAL-FIRED ELECTRIC GENERATION FACILITIES

EFFECTIVE DATE: 07/22/11

Passed by the Senate April 21, 2011
YEAS 33 NAYS 14

BRAD OWEN

President of the Senate

Passed by the House April 11, 2011
YEAS 87 NAYS 9

FRANK CHOPP

Speaker of the House of Representatives

CERTIFICATE

I, Thomas Hoemann, Secretary of the Senate of the State of Washington, do hereby certify that the attached is **ENGROSSED SECOND SUBSTITUTE SENATE BILL 5769** as passed by the Senate and the House of Representatives on the dates hereon set forth.

THOMAS HOEMANN

Secretary

Approved April 29, 2011, 10:59 a.m.

FILED

April 29, 2011

CHRISTINE GREGOIRE

Governor of the State of Washington

Secretary of State
State of Washington

ENGROSSED SECOND SUBSTITUTE SENATE BILL 5769

AS AMENDED BY THE HOUSE

Passed Legislature - 2011 Regular Session

State of Washington 62nd Legislature 2011 Regular Session

By Senate Ways & Means (originally sponsored by Senators Rockefeller, Pridemore, Kohl-Welles, White, Chase, Murray, Ranker, Regala, Fraser, Shin, and Kline)

READ FIRST TIME 02/25/11.

AN ACT Relating to coal-fired electric generation facilities; amending RCW 80.80.040, 80.80.070, 80.50.100, 43.160.076, and 19.280.030; reenacting and amending RCW 80.80.010 and 80.80.060; adding new sections to chapter 80.80 RCW; adding a new section to chapter 43.155 RCW; adding new sections to chapter 80.04 RCW; adding a new section to chapter 80.70 RCW; adding a new chapter to Title 80 RCW; creating a new section; providing an expiration date; and providing a contingent expiration date.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

NEW SECTION. **Sec. 101.** (1) The legislature finds that generating electricity from the combustion of coal produces pollutants that are harmful to human health and safety and the environment. While the emission of many of these pollutants continues to be addressed through application of federal and state air quality laws, the emission of greenhouse gases resulting from the combustion of coal has not been addressed.

(2) The legislature finds that coal-fired electricity generation is one of the largest sources of greenhouse gas emissions in the state,

and is the largest source of such emissions from the generation of electricity in the state.

(3) The legislature finds coal-fired electric generation may provide baseload power that is necessary in the near-term for the stability and reliability of the electrical transmission grid and that contributes to the availability of affordable power in the state. The legislature further finds that efforts to transition power to other fuels requires a reasonable period of time to ensure grid stability and to maintain affordable electricity resources.

(4) The legislature finds that coal-fired baseload electric generation facilities are a significant contributor to family-wage jobs and economic health in parts of the state and that transition of these facilities must address the economic future and the preservation of jobs in affected communities.

(5) Therefore, it is the purpose of this act to provide for the reduction of greenhouse gas emissions from large coal-fired baseload electric power generation facilities, to effect an orderly transition to cleaner fuels in a manner that ensures reliability of the state's electrical grid, to ensure appropriate cleanup and site restoration upon decommissioning of any of these facilities in the state, and to provide assistance to host communities planning for new economic development and mitigating the economic impacts of the closure of these facilities.

Sec. 102. RCW 80.80.010 and 2009 c 565 s 54 and 2009 c 448 s 1 are each reenacted and amended to read as follows:

The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

(1) "Attorney general" means the Washington state office of the attorney general.

(2) "Auditor" means: (a) The Washington state auditor's office or its designee for consumer-owned utilities under its jurisdiction; or (b) an independent auditor selected by a consumer-owned utility that is not under the jurisdiction of the state auditor.

(3) "Average available greenhouse gas emissions output" means the level of greenhouse gas emissions as surveyed and determined by the energy policy division of the department of commerce under RCW 80.80.050.

(4) "Baseload electric generation" means electric generation from a power plant that is designed and intended to provide electricity at an annualized plant capacity factor of at least sixty percent.

(5) "Cogeneration facility" means a power plant in which the heat or steam is also used for industrial or commercial heating or cooling purposes and that meets federal energy regulatory commission standards for qualifying facilities under the public utility regulatory policies act of 1978 (16 U.S.C. Sec. 824a-3), as amended.

(6) "Combined-cycle natural gas thermal electric generation facility" means a power plant that employs a combination of one or more gas turbines and steam turbines in which electricity is produced in the steam turbine from otherwise lost waste heat exiting from one or more of the gas turbines.

(7) "Commission" means the Washington utilities and transportation commission.

(8) "Consumer-owned utility" means a municipal utility formed under Title 35 RCW, a public utility district formed under Title 54 RCW, an irrigation district formed under chapter 87.03 RCW, a cooperative formed under chapter 23.86 RCW, a mutual corporation or association formed under chapter 24.06 RCW, or port district within which an industrial district has been established as authorized by Title 53 RCW, that is engaged in the business of distributing electricity to more than one retail electric customer in the state.

(9) "Department" means the department of ecology.

(10) "Distributed generation" means electric generation connected to the distribution level of the transmission and distribution grid, which is usually located at or near the intended place of use.

(11) "Electric utility" means an electrical company or a consumer-owned utility.

(12) "Electrical company" means a company owned by investors that meets the definition of RCW 80.04.010.

(13) "Governing board" means the board of directors or legislative authority of a consumer-owned utility.

(14) "Greenhouse ((~~gases~~)) gas" includes carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

(15) "Long-term financial commitment" means:

(a) Either a new ownership interest in baseload electric generation or an upgrade to a baseload electric generation facility; or

(b) A new or renewed contract for baseload electric generation with a term of five or more years for the provision of retail power or wholesale power to end-use customers in this state.

(16) "Plant capacity factor" means the ratio of the electricity produced during a given time period, measured in kilowatt-hours, to the electricity the unit could have produced if it had been operated at its rated capacity during that period, expressed in kilowatt-hours.

(17) "Power plant" means a facility for the generation of electricity that is permitted as a single plant by a jurisdiction inside or outside the state.

(18) "Upgrade" means any modification made for the primary purpose of increasing the electric generation capacity of a baseload electric generation facility. "Upgrade" does not include routine or necessary maintenance, installation of emission control equipment, installation, replacement, or modification of equipment that improves the heat rate of the facility, or installation, replacement, or modification of equipment for the primary purpose of maintaining reliable generation output capability that does not increase the heat input or fuel usage as specified in existing generation air quality permits as of July 22, 2007, but may result in incidental increases in generation capacity.

(19) "Coal transition power" means the output of a coal-fired electric generation facility that is subject to an obligation to meet the standards contained in RCW 80.80.040(3)(c).

(20) "Memorandum of agreement" or "memorandum" means a binding and enforceable contract entered into pursuant to section 106 of this act between the governor on behalf of the state and an owner of a baseload electric generation facility in the state that produces coal transition power.

Sec. 103. RCW 80.80.040 and 2009 c 448 s 2 are each amended to read as follows:

(1) Beginning July 1, 2008, the greenhouse gas emissions performance standard for all baseload electric generation for which electric utilities enter into long-term financial commitments on or after such date is the lower of:

(a) One thousand one hundred pounds of greenhouse gases per megawatt-hour; or

(b) The average available greenhouse gas emissions output as determined under RCW 80.80.050.

(2) This chapter does not apply to long-term financial commitments with the Bonneville power administration.

(3)(a) Except as provided in (c) of this subsection, all baseload electric generation facilities in operation as of June 30, 2008, are deemed to be in compliance with the greenhouse gas emissions performance standard established under this section until the facilities are the subject of long-term financial commitments.

(b) All baseload electric generation that commences operation after June 30, 2008, and is located in Washington, must comply with the greenhouse gas emissions performance standard established in subsection (1) of this section.

(c)(i) A coal-fired baseload electric generation facility in Washington that emitted more than one million tons of greenhouse gases in any calendar year prior to 2008 must comply with the lower of the following greenhouse gas emissions performance standard such that one generating boiler is in compliance by December 31, 2020, and any other generating boiler is in compliance by December 31, 2025:

(A) One thousand one hundred pounds of greenhouse gases per megawatt-hour; or

(B) The average available greenhouse gas emissions output as determined under RCW 80.80.050.

(ii) This subsection (3)(c) does not apply to a coal-fired baseload electric generating facility in the event the department determines as a requirement of state or federal law or regulation that selective catalytic reduction technology must be installed on any of its boilers.

(4) All electric generation facilities or power plants powered exclusively by renewable resources, as defined in RCW 19.280.020, are deemed to be in compliance with the greenhouse gas emissions performance standard established under this section.

(5) All cogeneration facilities in the state that are fueled by natural gas or waste gas or a combination of the two fuels, and that are in operation as of June 30, 2008, are deemed to be in compliance with the greenhouse gas emissions performance standard established

under this section until the facilities are the subject of a new ownership interest or are upgraded.

(6) In determining the rate of emissions of greenhouse gases for baseload electric generation, the total emissions associated with producing electricity shall be included.

(7) In no case shall a long-term financial commitment be determined to be in compliance with the greenhouse gas emissions performance standard if the commitment includes more than twelve percent of electricity from unspecified sources.

(8) For a long-term financial commitment with multiple power plants, each specified power plant must be treated individually for the purpose of determining the annualized plant capacity factor and net emissions, and each power plant must comply with subsection (1) of this section, except as provided in subsections (3) through (5) of this section.

(9) The department shall establish an output-based methodology to ensure that the calculation of emissions of greenhouse gases for a cogeneration facility recognizes the total usable energy output of the process, and includes all greenhouse gases emitted by the facility in the production of both electrical and thermal energy. In developing and implementing the greenhouse gas emissions performance standard, the department shall consider and act in a manner consistent with any rules adopted pursuant to the public utilities regulatory policy act of 1978 (16 U.S.C. Sec. 824a-3), as amended.

(10) The following greenhouse gas emissions produced by baseload electric generation owned or contracted through a long-term financial commitment shall not be counted as emissions of the power plant in determining compliance with the greenhouse gas emissions performance standard:

(a) Those emissions that are injected permanently in geological formations;

(b) Those emissions that are permanently sequestered by other means approved by the department; and

(c) Those emissions sequestered or mitigated as approved under subsection (16) of this section.

(11) In adopting and implementing the greenhouse gas emissions performance standard, the department of ((~~community, trade, and economic development~~)) commerce energy policy division, in consultation

with the commission, the department, the Bonneville power administration, the western electricity ((~~coordination [coordinating]~~)) coordinating council, the energy facility site evaluation council, electric utilities, public interest representatives, and consumer representatives, shall consider the effects of the greenhouse gas emissions performance standard on system reliability and overall costs to electricity customers.

(12) In developing and implementing the greenhouse gas emissions performance standard, the department shall, with assistance of the commission, the department of ((~~community, trade, and economic development~~)) commerce energy policy division, and electric utilities, and to the extent practicable, address long-term purchases of electricity from unspecified sources in a manner consistent with this chapter.

(13) The directors of the energy facility site evaluation council and the department shall each adopt rules under chapter 34.05 RCW in coordination with each other to implement and enforce the greenhouse gas emissions performance standard. The rules necessary to implement this section shall be adopted by June 30, 2008.

(14) In adopting the rules for implementing this section, the energy facility site evaluation council and the department shall include criteria to be applied in evaluating the carbon sequestration plan, for baseload electric generation that will rely on subsection (10) of this section to demonstrate compliance, but that will commence sequestration after the date that electricity is first produced. The rules shall include but not be limited to:

(a) Provisions for financial assurances, as a condition of plant operation, sufficient to ensure successful implementation of the carbon sequestration plan, including construction and operation of necessary equipment, and any other significant costs;

(b) Provisions for geological or other approved sequestration commencing within five years of plant operation, including full and sufficient technical documentation to support the planned sequestration;

(c) Provisions for monitoring the effectiveness of the implementation of the sequestration plan;

(d) Penalties for failure to achieve implementation of the plan on schedule;

(e) Provisions for an owner to purchase emissions reductions in the event of the failure of a sequestration plan under subsection (16) of this section; and

(f) Provisions for public notice and comment on the carbon sequestration plan.

(15)(a) Except as provided in (b) of this subsection, as part of its role enforcing the greenhouse gas emissions performance standard, the department shall determine whether sequestration or a plan for sequestration will provide safe, reliable, and permanent protection against the greenhouse gases entering the atmosphere from the power plant and all ancillary facilities.

(b) For facilities under its jurisdiction, the energy facility site evaluation council shall contract for review of sequestration or the carbon sequestration plan with the department consistent with the conditions under (a) of this subsection, consider the adequacy of sequestration or the plan in its adjudicative proceedings conducted under RCW 80.50.090(3), and incorporate specific findings regarding adequacy in its recommendation to the governor under RCW 80.50.100.

(16) A project under consideration by the energy facility site evaluation council by July 22, 2007, is required to include all of the requirements of subsection (14) of this section in its carbon sequestration plan submitted as part of the energy facility site evaluation council process. A project under consideration by the energy facility site evaluation council by July 22, 2007, that receives final site certification agreement approval under chapter 80.50 RCW shall make a good faith effort to implement the sequestration plan. If the project owner determines that implementation is not feasible, the project owner shall submit documentation of that determination to the energy facility site evaluation council. The documentation shall demonstrate the steps taken to implement the sequestration plan and evidence of the technological and economic barriers to successful implementation. The project owner shall then provide to the energy facility site evaluation council notification that they shall implement the plan that requires the project owner to meet the greenhouse gas emissions performance standard by purchasing verifiable greenhouse gas emissions reductions from an electric ((~~generating~~)) generation facility located within the western interconnection, where the reduction would not have occurred otherwise or absent this contractual

agreement, such that the sum of the emissions reductions purchased and the facility's emissions meets the standard for the life of the facility.

Sec. 104. RCW 80.80.060 and 2009 c 448 s 3 and 2009 c 147 s 1 are each reenacted and amended to read as follows:

(1) No electrical company may enter into a long-term financial commitment unless the baseload electric generation supplied under such a long-term financial commitment complies with the greenhouse ((~~gases [gas]~~)) gas emissions performance standard established under RCW 80.80.040.

(2) In order to enforce the requirements of this chapter, the commission shall review in a general rate case or as provided in subsection (5) of this section any long-term financial commitment entered into by an electrical company after June 30, 2008, to determine whether the baseload electric generation to be supplied under that long-term financial commitment complies with the greenhouse ((~~gases [gas]~~)) gas emissions performance standard established under RCW 80.80.040.

(3) In determining whether a long-term financial commitment is for baseload electric generation, the commission shall consider the design of the power plant and its intended use, based upon the electricity purchase contract, if any, permits necessary for the operation of the power plant, and any other matter the commission determines is relevant under the circumstances.

(4) Upon application by an electric utility, the commission may provide a case-by-case exemption from the greenhouse ((~~gases [gas]~~)) gas emissions performance standard to address: (a) Unanticipated electric system reliability needs; (b) extraordinary cost impacts on utility ratepayers; or (c) catastrophic events or threat of significant financial harm that may arise from unforeseen circumstances.

(5) Upon application by an electrical company, the commission shall determine whether the company's proposed decision to acquire electric generation or enter into a power purchase agreement for electricity complies with the greenhouse ((~~gases [gas]~~)) gas emissions performance standard established under RCW 80.80.040. The commission shall not decide in a proceeding under this subsection (5) issues involving the actual costs to construct and operate the selected resource, cost

recovery, or other issues reserved by the commission for decision in a general rate case or other proceeding for recovery of the resource or contract costs.

(6) An electrical company may account for and defer for later consideration by the commission costs incurred in connection with a long-term financial commitment, including operating and maintenance costs, depreciation, taxes, and cost of invested capital. The deferral begins with the date on which the power plant begins commercial operation or the effective date of the power purchase agreement and continues for a period not to exceed twenty-four months; provided that if during such period the company files a general rate case or other proceeding for the recovery of such costs, deferral ends on the effective date of the final decision by the commission in such proceeding. Creation of such a deferral account does not by itself determine the actual costs of the long-term financial commitment, whether recovery of any or all of these costs is appropriate, or other issues to be decided by the commission in a general rate case or other proceeding for recovery of these costs. For the purpose of this subsection (6) only, the term "long-term financial commitment" also includes an electric company's ownership or power purchase agreement with a term of five or more years associated with an eligible renewable resource as defined in RCW 19.285.030.

(7) The commission shall consult with the department to apply the procedures adopted by the department to verify the emissions of greenhouse gases from baseload electric generation under RCW 80.80.040. The department shall report to the commission whether baseload electric generation will comply with the greenhouse ((~~gases [gas]~~)) gas emissions performance standard for the duration of the period the baseload electric generation is supplied to the electrical company.

(8) The commission shall adopt rules for the enforcement of this section with respect to electrical companies and adopt procedural rules for approving costs incurred by an electrical company under subsection (4) of this section.

(9) This section does not apply to a long-term financial commitment for the purchase of coal transition power with termination dates consistent with the applicable dates in RCW 80.80.040(3)(c).

(10) The commission shall adopt rules necessary to implement this section by December 31, 2008.

Sec. 105. RCW 80.80.070 and 2007 c 307 s 9 are each amended to read as follows:

(1) No consumer-owned utility may enter into a long-term financial commitment unless the baseload electric generation supplied under such a long-term financial commitment complies with the greenhouse ((~~gases~~)) gas emissions performance standard established under RCW 80.80.040.

(2) The governing board shall review and make a determination on any long-term financial commitment by the utility, pursuant to this chapter and after consultation with the department, to determine whether the baseload electric generation to be supplied under that long-term financial commitment complies with the greenhouse ((~~gases~~)) gas emissions performance standard established under RCW 80.80.040. No consumer-owned utility may enter into a long-term financial commitment unless the baseload electric generation to be supplied under that long-term financial commitment complies with the greenhouse ((~~gases~~)) gas emissions performance standard established under RCW 80.80.040.

(3) In confirming that a long-term financial commitment is for baseload electric generation, the governing board shall consider the design of the power plant and the intended use of the power plant based upon the electricity purchase contract, if any, permits necessary for the operation of the power plant, and any other matter the governing board determines is relevant under the circumstances.

(4) The governing board may provide a case-by-case exemption from the greenhouse ((~~gases~~)) gas emissions performance standard to address: (a) Unanticipated electric system reliability needs; or (b) catastrophic events or threat of significant financial harm that may arise from unforeseen circumstances.

(5) The governing board shall apply the procedures adopted by the department to verify the emissions of greenhouse gases from baseload electric generation under RCW 80.80.040, and may request assistance from the department in doing so.

(6) For consumer-owned utilities, the auditor is responsible for auditing compliance with this chapter and rules adopted under this chapter that apply to those utilities and the attorney general is responsible for enforcing that compliance.

(7) This section does not apply to long-term financial commitments for the purchase of coal transition power with termination dates consistent with the applicable dates in RCW 80.80.040(3)(c).

NEW SECTION. **Sec. 106.** A new section is added to chapter 80.80 RCW to read as follows:

(1) By January 1, 2012, the governor on behalf of the state shall enter into a memorandum of agreement that takes effect on April 1, 2012, with the owners of a coal-fired baseload facility in Washington that emitted more than one million tons of greenhouse gases in any calendar year prior to 2008. The memorandum of agreement entered into by the governor may only contain provisions authorized in this section, except as provided under section 108 of this act.

(2) The memorandum of agreement must:

(a) Incorporate by reference RCW 80.80.040, 80.80.060, and 80.80.070 as of the effective date of this section;

(b) Incorporate binding commitments to install selective noncatalytic reduction pollution control technology in any coal-fired generating boilers by January 1, 2013, after discussing the proper use of ammonia in this technology.

(3)(a) The memorandum of agreement must include provisions by which the facility owner will provide financial assistance:

(i) To the affected community for economic development and energy efficiency and weatherization; and

(ii) For energy technologies with the potential to create considerable energy, economic development, and air quality, haze, or other environmental benefits.

(b) Except as described in (c) of this subsection, the financial assistance in (a)(i) of this subsection must be in the amount of thirty million dollars and the financial assistance in (a)(ii) of this subsection must be in the amount of twenty-five million dollars, with investments beginning January 1, 2012, and consisting of equal annual investments through December 31, 2023, or until the full amount has been provided. Only funds for energy efficiency and weatherization may be spent prior to December 31, 2015.

(c) If the tax exemptions provided under RCW 82.08.811 or 82.12.811 are repealed, any remaining financial assistance required by this section is no longer required.

(4) The memorandum of agreement must:

(a) Specify that the investments in subsection (3) of this section be held in independent accounts at an appropriate financial institution; and

(b) Identify individuals to approve expenditures from the accounts. Individuals must have relevant expertise and must include members representing the Lewis county economic development council, local elected officials, employees at the facility, and the facility owner.

(5) The memorandum of agreement must include a provision that allows for the termination of the memorandum of agreement in the event the department determines as a requirement of state or federal law or regulation that selective catalytic reduction technology must be installed on any of its boilers.

(6) The memorandum of agreement must include enforcement provisions to ensure implementation of the agreement by the parties.

(7) If the memorandum of agreement is not signed by January 1, 2012, the governor must impose requirements consistent with the provisions in subsection (2)(b) of this section.

NEW SECTION. **Sec. 107.** A new section is added to chapter 80.80 RCW to read as follows:

No state agency or political subdivision of the state may adopt or impose a greenhouse gas emission performance standard, or other operating or financial requirement or limitation relating to greenhouse gas emissions, on a coal-fired electric generation facility located in Washington in operation on or before the effective date of this section or upon an electric utility's long-term purchase of coal transition power, that is inconsistent with or in addition to the provisions of RCW 80.80.040 or the memorandum of agreement entered into under section 106 of this act.

NEW SECTION. **Sec. 108.** A new section is added to chapter 80.80 RCW to read as follows:

(1) A memorandum of agreement entered into pursuant to section 106 of this act may include provisions to assist in the financing of emissions reductions that exceed those required by RCW 80.80.040(3)(c) by providing for the recognition of such reductions in applicable state policies and programs relating to greenhouse gas emissions, and by encouraging and advocating for the recognition of the reductions in all established and emerging emission reduction frameworks at the regional, national, or international level.

(2) The governor may recommend actions to the legislature to strengthen implementation of an agreement or a proposed agreement relating to recognition of investments in emissions reductions described in subsection (1) of this section.

Sec. 109. RCW 80.50.100 and 1989 c 175 s 174 are each amended to read as follows:

(1)(a) The council shall report to the governor its recommendations as to the approval or rejection of an application for certification within twelve months of receipt by the council of such an application, or such later time as is mutually agreed by the council and the applicant.

(b) In the case of an application filed prior to December 31, 2025, for certification of an energy facility proposed for construction, modification, or expansion for the purpose of providing generating facilities that meet the requirements of RCW 80.80.040 and are located in a county with a coal-fired electric generating facility subject to RCW 80.80.040(3)(c), the council shall expedite the processing of the application pursuant to RCW 80.50.075 and shall report its recommendations to the governor within one hundred eighty days of receipt by the council of such an application, or a later time as is mutually agreed by the council and the applicant.

(2) If the council recommends approval of an application for certification, it shall also submit a draft certification agreement with the report. The council shall include conditions in the draft certification agreement to implement the provisions of this chapter, including, but not limited to, conditions to protect state or local governmental or community interests affected by the construction or operation of the energy facility, and conditions designed to recognize the purpose of laws or ordinances, or rules or regulations promulgated thereunder, that are preempted or superseded pursuant to RCW 80.50.110 as now or hereafter amended.

((~~(2)~~)) (3)(a) Within sixty days of receipt of the council's report the governor shall take one of the following actions:

((~~(a)~~)) (i) Approve the application and execute the draft certification agreement; or

((~~(b)~~)) (ii) Reject the application; or

((~~(c)~~)) (iii) Direct the council to reconsider certain aspects of the draft certification agreement.

(b) The council shall reconsider such aspects of the draft certification agreement by reviewing the existing record of the application or, as necessary, by reopening the adjudicative proceeding for the purposes of receiving additional evidence. Such reconsideration shall be conducted expeditiously. The council shall resubmit the draft certification to the governor incorporating any amendments deemed necessary upon reconsideration. Within sixty days of receipt of such draft certification agreement, the governor shall either approve the application and execute the certification agreement or reject the application. The certification agreement shall be binding upon execution by the governor and the applicant.

((~~(3)~~)) (4) The rejection of an application for certification by the governor shall be final as to that application but shall not preclude submission of a subsequent application for the same site on the basis of changed conditions or new information.

NEW SECTION. **Sec. 201.** (1) A facility subject to closure under either RCW 80.80.040(3)(c) or a memorandum of agreement under section 106 of this act, or both, must provide the department of ecology with a plan for the closure and postclosure of the facility at least twenty-four months prior to facility closure or twenty-four months prior to start of decommissioning work, whichever is earlier. This plan must be consistent with the rules established by the energy facility site evaluation council for site restoration and preservation applicable to facilities subject to a site certification agreement under chapter 80.50 RCW and include but not be limited to:

(a) A detailed estimate of the cost to implement the plan based on the cost of hiring a third party to conduct all activities;

(b) Demonstrating financial assurance to fund the closure and postclosure of the facility and providing methods by which this assurance may be demonstrated;

(c) Methods for estimating closure costs, including full site reclamation under all applicable federal and state clean-up standards; and

(d) A decommissioning and site restoration plan that addresses restoring physical topography, cleanup of all hazardous substances on

the site, potential future uses of the site following restoration, and coordination with local and community plans for economic development in the vicinity of the site.

(2) All cost estimates in the plan must be in current dollars and may not include a net present value adjustment or offsets for salvage value of wastes or other property.

(3) Adoption of the plan and significant revisions to the plan must be approved by the department of ecology.

NEW SECTION. **Sec. 202.** (1) A facility subject to closure under either RCW 80.80.040(3)(c) or a memorandum of agreement under section 106 of this act, or both, must guarantee funds are available to perform all activities specified in the decommissioning plan developed under section 201 of this act. The amount must equal the cost estimates specified in the decommissioning plan and must be updated annually for inflation. All guarantees under this section must be assumed by any successor owner, parent company, or holding company.

(2) The guarantee required under subsection (1) of this section may be accomplished by letter of credit, surety bond, or other means acceptable to the department of ecology.

(3) The issuing institution of the letter of credit must be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated by a federal or state agency. The surety company issuing a surety bond must, at a minimum, be an entity listed as an acceptable surety on federal bonds in circular 570, published by the United States department of the treasury.

(4) A qualifying facility that uses a letter of credit or a surety bond to satisfy the requirements of this act must also establish a standby trust fund as a means to hold any funds issued from the letter of credit or a surety bond. Under the terms of the letter of credit or a surety bond, all amounts paid pursuant to a draft from the department of ecology must be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the department of ecology. This standby trust fund must be approved by the department of ecology.

(5) The letter of credit or a surety bond must be irrevocable and issued for a period of at least one year. The letter of credit or a surety bond must provide that the expiration date will be automatically

extended for a period of at least one year unless, at least one hundred twenty days before the current expiration date, the issuing institution notifies both the qualifying facility and the department of ecology of a decision not to extend the expiration date. Under the terms of the letter of credit, the one hundred twenty days will begin on the date when both the qualifying plant and the department of ecology have received the notice, as evidenced by certified mail return receipts or by overnight courier delivery receipts.

(6) If the qualifying facility does not establish an alternative method of guaranteeing decommissioning funds are available within ninety days after receipt by both the qualifying facility plant and the department of ecology of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the department of ecology must draw on the letter of credit or a surety bond. The department of ecology must approve any replacement or substitute guarantee method before the expiration of the ninety-day period.

(7) If a qualifying facility elects to use a letter of credit as the sole method for guaranteeing decommissioning funds are available, the face value of the letter of credit must meet or exceed the current inflation-adjusted cost estimate. If a qualifying facility elects to use a surety bond as the sole method for guaranteeing decommissioning funds are available, the penal sum of the surety bond must meet or exceed the current inflation-adjusted cost estimate.

(8) A qualifying facility must adjust the decommissioning costs and financial guarantees annually for inflation and may use an amendment to increase the face value of a letter of credit or a surety bond each year to account for this inflation. A qualifying facility is not required to obtain a new letter of credit or a surety bond to cover annual inflation adjustments.

NEW SECTION. **Sec. 203.** Sections 201 and 202 of this act constitute a new chapter in Title 80 RCW.

Sec. 301. RCW 43.160.076 and 2008 c 327 s 8 are each amended to read as follows:

(1) Except as authorized to the contrary under subsection (2) of this section, from all funds available to the board for financial

assistance in a biennium under this chapter, the board shall approve at least seventy-five percent of the first twenty million dollars of funds available and at least fifty percent of any additional funds for financial assistance for projects in rural counties.

(2) If at any time during the last six months of a biennium the board finds that the actual and anticipated applications for qualified projects in rural counties are clearly insufficient to use up the allocations under subsection (1) of this section, then the board shall estimate the amount of the insufficiency and during the remainder of the biennium may use that amount of the allocation for financial assistance to projects not located in rural counties.

(3) The board shall solicit qualifying projects to plan, design, and construct public facilities needed to attract new industrial and commercial activities in areas impacted by the closure or potential closure of large coal-fired electric generation facilities, which for the purposes of this section means a facility that emitted more than one million tons of greenhouse gases in any calendar year prior to 2008. The projects should be consistent with any applicable plans for major industrial activity on lands formerly used or designated for surface coal mining and supporting uses under RCW 36.70A.368. When the board receives timely and eligible project applications from a political subdivision of the state for financial assistance for such projects, the board from available funds shall give priority consideration to such projects.

NEW SECTION. **Sec. 302.** A new section is added to chapter 43.155 RCW to read as follows:

The board shall solicit qualifying projects to plan, design, and construct public works projects needed to attract new industrial and commercial activities in areas impacted by the closure or potential closure of large coal-fired electric generation facilities, which for the purposes of this section means a facility that emitted more than one million tons of greenhouse gases in any calendar year prior to 2008. The projects should be consistent with any applicable plans for major industrial activity on lands formerly used or designated for surface coal mining and supporting uses under RCW 36.70A.368. When the board receives timely and eligible project applications from a

political subdivision of the state for financial assistance for such projects, the board from available funds shall give priority consideration to such projects.

NEW SECTION. **Sec. 303.** A new section is added to chapter 80.04 RCW to read as follows:

The legislature finds that an electrical company's acquisition of coal transition power helps to achieve the state's greenhouse gas emission reduction goals by effecting an orderly transition to cleaner fuels and supports the state's public policy.

NEW SECTION. **Sec. 304.** A new section is added to chapter 80.04 RCW to read as follows:

(1) On the petition of an electrical company, the commission shall approve or disapprove a power purchase agreement for acquisition of coal transition power, as defined in RCW 80.80.010, and the recovery of related acquisition costs. No agreement for an electrical company's acquisition of coal transition power takes effect until it is approved by the commission.

(2) Any power purchase agreement for the acquisition of coal transition power pursuant to this section must provide for modification of the power purchase agreement to the satisfaction of the parties thereto in the event that a new or revised emission or performance standard or other new or revised operational or financial requirement or limitation directly or indirectly addressing greenhouse gas emissions is imposed by state or federal law, rules, or regulatory requirements. Such a modification to a power purchase agreement agreed to by the parties must be reviewed and considered for approval by the commission, considering the circumstances existing at the time of such a review, under procedures and standards set forth in this section. In the event the parties cannot agree to modification of the power purchase agreement, either party to the agreement has the right to terminate the agreement if it is adversely affected by this new standard, requirement, or limitation.

(3) When a petition is filed, the commission shall provide notice to the public and potentially affected parties and set the petition for hearing as an adjudicative proceeding under chapter 34.05 RCW. Any party may request that the commission expedite the hearing of that

petition. The hearing of such a petition is not considered a general rate case. The electrical company must file supporting testimony and exhibits together with the power purchase agreement for coal transition power. Information provided by the facility owner to the purchasing electrical company for evaluating the costs and benefits associated with acquisition of coal transition power must be made available to other parties to the petition under a protective order entered by the commission. An administrative law judge of the commission may enter an initial order including findings of fact and conclusions of law, as provided in RCW 80.01.060(3). The commission shall issue a final order that approves or disapproves the power purchase agreement for acquisition of coal transition power within one hundred eighty days after an electrical company files the petition.

(4) The commission must approve a power purchase agreement for acquisition of coal transition power pursuant to this section only if the commission determines that, considering the circumstances existing at the time of such a review: The terms of such an agreement provide adequate protection to ratepayers and the electrical company during the term of such an agreement or in the event of early termination; the resource is needed by the electrical company to serve its ratepayers and the resource meets the need in a cost-effective manner as determined under the lowest reasonable cost resource standards under chapter 19.280 RCW, including the cost of the power purchase agreement plus the equity component as determined in this section. As part of these determinations, the commission shall consider, among other factors, the long-term economic risks and benefits to the electrical company and its ratepayers of such a long-term purchase.

(5) If the commission has not issued a final order within one hundred eighty days from the date the petition is filed, or if the commission disapproves the petition, the power purchase agreement for acquisition of coal transition power is null and void. In the event the commission approves the agreement upon conditions other than those set forth in the petition, the electrical company has the right to reject the agreement.

(6)(a) Upon commission approval of an electrical company's power purchase agreement for acquisition of coal transition power in accordance with this section, the electrical company is allowed to earn the equity component of its authorized rate of return in the same

manner as if it had purchased or built an equivalent plant and to recover the cost of the coal transition power under the power purchase agreement. Any power purchase agreement for acquisition of coal transition power that earns a return on equity may not be included in an imputed debt calculation for setting customer rates.

(b) For purposes of determining the equity value, the cost of an equivalent plant is the least cost purchased or self-built electric generation plant with equivalent capacity. In determining the least cost plant, the commission may rely on the electrical company's most recent filed integrated resource plan. The cost of an equivalent plant, in dollars per kilowatt, must be determined in the original process of commission approval for each power purchase agreement for coal transition power.

(c) The equivalent plant cost determined in the approval process must be amortized over the life of the power purchase agreement for acquisition of coal transition power to determine the recovery of the equity value.

(d) The recovery of the equity component must be determined and approved in the review process set forth in this section. The approved equity value must be in addition to the approved cost of the power purchase agreement.

(7) Authorizing recovery of costs under a power purchase agreement for acquisition of coal transition power does not prohibit the commission from authorizing recovery of an electrical company's acquisition of capacity resources for the purpose of integrating intermittent power or following load.

(8) Neither this act nor the commission's approval of a power purchase agreement for acquisition of coal transition power that includes the ability to earn the equity component of an electrical company's authorized rate of return establishes any precedent for an electrical company to receive an equity return on any other power purchase agreement or other power contract.

(9) For purposes of this section, "power purchase agreement" means a long-term financial commitment as defined in RCW 80.80.010(15)(b).

(10) This section expires December 31, 2025.

Sec. 305. RCW 19.280.030 and 2006 c 195 s 3 are each amended to read as follows:

Each electric utility must develop a plan consistent with this section.

(1) Utilities with more than twenty-five thousand customers that are not full requirements customers shall develop or update an integrated resource plan by September 1, 2008. At a minimum, progress reports reflecting changing conditions and the progress of the integrated resource plan must be produced every two years thereafter. An updated integrated resource plan must be developed at least every four years subsequent to the 2008 integrated resource plan. The integrated resource plan, at a minimum, must include:

(a) A range of forecasts, for at least the next ten years, of projected customer demand which takes into account econometric data and customer usage;

(b) An assessment of commercially available conservation and efficiency resources. Such assessment may include, as appropriate, high efficiency cogeneration, demand response and load management programs, and currently employed and new policies and programs needed to obtain the conservation and efficiency resources;

(c) An assessment of commercially available, utility scale renewable and nonrenewable generating technologies <u>including a comparison of the benefits and risks of purchasing power or building new resources</u>;

(d) A comparative evaluation of renewable and nonrenewable generating resources, including transmission and distribution delivery costs, and conservation and efficiency resources using "lowest reasonable cost" as a criterion;

(e) The integration of the demand forecasts and resource evaluations into a long-range assessment describing the mix of supply side generating resources and conservation and efficiency resources that will meet current and projected needs at the lowest reasonable cost and risk to the utility and its ratepayers; and

(f) A short-term plan identifying the specific actions to be taken by the utility consistent with the long-range integrated resource plan.

(2) All other utilities may elect to develop a full integrated resource plan as set forth in subsection (1) of this section or, at a minimum, shall develop a resource plan that:

(a) Estimates loads for the next five and ten years;

(b) Enumerates the resources that will be maintained and/or acquired to serve those loads; and

(c) Explains why the resources in (b) of this subsection were chosen and, if the resources chosen are not renewable resources or conservation and efficiency resources, why such a decision was made.

(3) An electric utility that is required to develop a resource plan under this section must complete its initial plan by September 1, 2008.

(4) Resource plans developed under this section must be updated on a regular basis, at a minimum on intervals of two years.

(5) Plans shall not be a basis to bring legal action against electric utilities.

(6) Each electric utility shall publish its final plan either as part of an annual report or as a separate document available to the public. The report may be in an electronic form.

NEW SECTION. **Sec. 306.** A new section is added to chapter 80.70 RCW to read as follows:

(1) An applicant for a natural gas-fired generation plant to be constructed in a county with a coal-fired electric generation facility subject to RCW 80.80.040(3)(c) is exempt from this chapter if the application is filed before December 31, 2025.

(2) For the purposes of this section, an applicant means the owner of a coal-fired electric generation facility subject to RCW 80.80.040(3)(c).

(3) This section expires December 31, 2025, or when the station-generating capability of all natural gas-fired generation plants approved under this section equals the station-generating capability from a coal-fired electric generation facility subject to RCW 80.80.040(3)(c).

NEW SECTION. **Sec. 307.** If any provision of this act or its application to any person or circumstance is held invalid, the remainder of the act or the application of the provision to other persons or circumstances is not affected.

Passed by the Senate April 21, 2011.
Passed by the House April 11, 2011.
Approved by the Governor April 29, 2011.
Filed in Office of Secretary of State April 29, 2011.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

May 5, 2011

Pat Brewer
National Parks Service
PO BOX 25287
DENVER CO 80225-0287

Dear Pat Brewer:

You are receiving this as a member of the Federal Land Manager (FLM) team or neighboring state that has consulted with Ecology on Washington's Regional Haze State Implementation Plan (RH SIP).

On April 29, 2011 Governor Christine Gregoire signed into law Senate Bill 5769 (Chapter 180, Laws of 2011) affecting coal-fired energy production at the TransAlta power plant in Centralia. Senate Bill 5769 (SB 5769) solidifies into law a collaborative agreement between the plant owner and employees, environmental groups, the Governor's Office, and the local community. The law requires the state's two coal boilers to meet specific greenhouse gas emission performance standards on a schedule specified in the law and requires the installation of selective non-catalytic reduction (SNCR) technology.

Ecology will be revising the current TransAlta BART compliance order and technical support document (TSD) to comply with the new law. Some items that will be included in the revised BART compliance order and TSD from the law include:

- Installation of selective non-catalytic reduction (SNCR) technology by January 1, 2013
- Compliance with greenhouse gas emission performance standard for:
    - One boiler by December 31, 2020
    - The remaining boiler by December 31, 2025
- Compliance with the greenhouse gas emission performance standard will not apply to the facility if the Department of Ecology "determines as a requirement of state or

> federal law or regulation that selective catalytic reduction technology must be installed on any of its boilers" (excerpt from SB 5769, Section 103(3)(c)(ii))

A copy of the new law is enclosed.

When Ecology completes a draft revision of the compliance order and technical support document, we will send you a copy. We would like to complete our consultation as quickly as possible. After consultation we will hold a public comment period and hearing. We would like to submit the final revised documents to EPA by the end of September for consideration as part of our RH SIP.

If you have questions please feel free to contact Al Newman, Doug Schneider or myself.

- Al Newman (360) 407-6810 alan.newman@ecy.wa.gov
- Doug Schneider (360) 407-6874 doug.schneider@ecy.wa.gov
- Julie Oliver (360)407-6839 julie.oliver@ecy.wa.gov

Sincerely,

Julie Oliver
Environmental Planner
Air Quality Program

Enclosure

cc: Stu Clark, Ecology
Doug Schneider, Ecology
Al Newman, Ecology
Jeff Johnston, Ecology
Julie Oliver, Ecology
Steve Body, EPA Region 10

From:	Blain, Lindsay (ECY) on behalf of Oliver, Julie (ECY)
To:	"tim_allen@fws.gov"; "rgraw@fs.fed.us"; "jlpeterson@fs.fed.us"; "copeland@cira.colostate.edu"; "Pat_brewer@nps.gov"; "john_bunyak@nps.gov"; "Don_Shepherd@nps.gov"
Cc:	Clark, Stuart (ECY); Schneider, Doug (ECY); Newman, Alan (ECY); Johnston, Jeff (ECY); Oliver, Julie (ECY); "body.steve@epa.gov"
Subject:	Consultation on Washington's Regional Haze State Implementation Plan Revision involving the TransAlta BART Compliance Order and Technical Support Document
Date:	Friday, August 26, 2011 11:42:00 AM
Attachments:	BARTComplianceOrderTransAlta-Revised-008232011.pdf BART Analysis August 2011.pdf BARTComplianceOrderTransAlta-Clean-008232011.pdf

Dear FLM Recipients:

As I explained in my May 5, 2011 letter, Ecology would be revising the existing TransAlta BART Compliance Order and Technical Support Document (TSD) to comply with a law enacted by the 2011 state legislative session. This new law requires the implementation of selective non-catalytic reduction (SNCR) technology at TransAlta by January 1, 2013 and compliance with specific greenhouse gas emission performance standards by the two units at this facility on a schedule specified by the law.

Now that the draft revisions of the Compliance Order and Technical Support Document are ready for review, Ecology is initiating consultation with neighboring states and formal consultation with the FLMs on these revisions. We would like to complete our consultation within 30 days for two related reasons: issuance of a revised BART compliance order to TransAlta and submission of the revised compliance order and TSD to EPA as a revision to the state's Regional Haze State Implementation Plan by the end of November.

To keep the process moving forward in a timely manner, we propose a two-hour consultation by phone and submission of any follow-up written comments by September 30th. Please let us know by the end of next week the blocks of time that work for you. Below is a link to a "doodle" poll to cast your votes on your availability.

http://doodle.com/hq2rysmpap5du9hw

If you have questions please feel free to contact Al Newman, Doug Schneider or myself,

- Al Newman (360) 407-6810 alan.newman@ecy.wa.gov
- Doug Schneider (360) 407-6874 doug.schneider@ecy.wa.gov
- Julie Oliver (360)407-6839 julie.oliver@ecy.wa.gov

Sincerely,

Julie Oliver
Acting Program Development Section Manager
Air Quality Program

Enclosures

Section B-8 Ecology's Summary of the U.S. Department of Agriculture Forest Service's Comments and Ecology's Response

The following is a summary of the comments offered by the USDA-FS on the revised draft documents. The USDA-FS comments focus on four areas:

- An initial Nitrogen Oxides (NO_x) reduction of 10%, rather than 20-30%
- Optimization period
- Ammonia slip during optimization
- Optimization test results

Comments regarding an initial NOx reduction of 10%, rather than 20-30%:
The revised draft compliance order establishes the equivalent of 10% NO_x reduction after the installation of SNCR. The USDA-FS expects a 20-30% reduction after installation of SNCR. Ecology's approach to setting a preliminary limit and then a final limit after optimization appears reasonable. The USDA-FS is still concerned that during the initial years, the higher initial NO_x limitation may allow more haze than the installed technology can actually provide.

Response:
Ecology also anticipates that the NO_x reduction finally achieved at the end of the optimization period will be in the 20 – 30% reduction range. Since the installation and actual control capabilities of an SNCR system are very boiler specific, Ecology is establishing an initial NO_x limit that represents a modest emission reduction that the system should be capable of achieving.

Ecology has provided additional information and rationale for our proposal in the draft revisions to the order for a lower than anticipated initial NO_x reduction (initial higher emission limitation). Ecology and the company both anticipate that if the SNCR vendor's computational fluid dynamics modeling were available, that a lower number would be in this draft revision. However, this modeling data is not available on a timeline to meet the requirements in state law to issue a revised compliance order by December 31, 2011.

The system designer's estimate will be based on a computational fluid dynamics model of each boiler. The model requires actual temperature and flow data for calibration prior to modeling the effects of the SNCR system. This temperature and flow information was not acquired by the designer until after the plant resumed operation, which occurred about the middle of August. According to the company, this initial information is not anticipated to be available until the end of October 2011.

Comments on the optimization period:
The USDA-FS would like TransAlta to submit the SNCR optimization plan earlier so the optimization study can begin right after installation is complete. The USDA-FS would also like the optimization period to be shortened considerably from 32 months.

Response:

Ecology agrees. We intended the optimization period, including the drafting of the final report to last approximately 18 months. We have revised the schedule so that the final report is to be submitted by the end of December 2014.

Comments on ammonia slip during optimization:
The USDA- FS is concerned about the level of ammonia slip that is allowed during the optimization period. The USDA-FS requests that Ecology revisit the limit set in the revised draft compliance order and decrease it to a more restrictive level.

Response:
Based on a similar comment from TransAlta, we have reduced the ammonia slip during optimization period to 20 ppmdv, and further restricted the ability to emit at this level to only the time period when the company is determining how low the NO_x emissions can go. Ecology does not intend to require the plant to achieve the lowest NO_x emissions possible, but to achieve the lowest NO_x emissions possible with a low ammonia slip.

Comments on the optimization test results:
The USDA-FS expects that the results of the optimization study to be able to show an additional 20-30% NO_x reduction The USDA-FS would like the opportunity to review and comment upon the optimization study results.

Response:
We also expect that the optimization study will indicate a higher NO_x reduction level (lower NO_x emission rate) can and will be achieved routinely in practice. The results of the optimization study will be incorporated into a second revision to the BART compliance order. Ecology estimates the second revision will occur in 2015.

The optimization study report is a public document that is available for review. We are not providing for an external review period as part of the optimization study requirements in the BART compliance order. However, anyone will be able to review the report and comments. Observations about the report and its findings will be welcomed.

The company is required to report its NO_x emissions to EPA as part of its quarterly Acid Rain Program reporting. This information will indicate the progress of the company in its optimization study.

Section B-9 U.S. Department of Agriculture Forest Service's Comments

USDA United States Department of Agriculture | Forest Service | Pacific Northwest Region | 333 SW First Avenue (97204) PO Box 3623 Portland, OR 97208-3623 503-808-2468

File Code: 2580
Date: September 23, 2011

RECEIVED
SEP 27 2011
DEPARTMENT OF ECOLOGY
AIR QUALITY PROGRAM

Mr. Jeff Johnson
Air Quality Program
Washington Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

Dear Mr. Johnson:

Thank you for the opportunity to review the draft revisions to the Best Available Retrofit Technology (BART) Compliance Order for the TransAlta Centralia Generation power plant. As the Federal Land Manager for five Class I areas in Washington, the Forest Service has a vested interest in seeing the goals of the Regional Haze Rule accomplished. The BART program is a key component of this rule. The TransAlta coal-fired power plant in Centralia Washington is one of the largest stationary sources of haze-causing pollutants in the Pacific Northwest, subject to BART. The air quality modeling for the BART analysis showed that this facility causes or contributes to haze in 12 Class I areas in Washington and Oregon. As such, reducing emissions from this facility is of high importance to the Forest Service.

While overall, we are pleased with the revisions to the BART Compliance Order, there are a few remaining items of concern including:

1. A reduction in NOx of only 10%, rather than the expected 20-30%.
2. An excessively long (nearly 3-year) optimization period.
3. Excessively high ammonia slip allowed during optimization.
4. An opportunity to review and comment on optimization test results.

Details of our concerns are provided below:

NOx Emission Limits Associated with SNCR Technology

The BART emission limits for NOx in the proposed revision to the Compliance Order, are described in section 1.1. Condition 1.1.1 limits NOx to 0.24 lbs/MMBtu after December 31, 2012, and appears to be associated with the use of low NOx burners with separated and closed coupled overfire air system and the use of sub-bituminous Power River Basin coal (together referred to as "Flex Fuels"). Implementation of this condition represents a 20% decrease in NOx emissions from the previously permitted level of 0.30 lbs/MMBtu.

Condition 1.1.2 states that beginning the 31st operating day after December 31, 2012, the NOx emission limitation is 0.216 lbs/MMBtu, 30 operating day rolling average. This is equivalent to a 10% decrease in NOx emissions after the installation of SNCR, before SNCR system optimization. This differs from our expectations of a 20-30% reduction in NOx emission beyond that achieved with Low NOx Burners (LNB)/Combustion modifications"[1]. TransAlta has expressed some concern about its ability to meet the expected NOx emission reductions beyond Flex Fuels with the use of SNCR technology due to its boiler design. We understand that Ecology set this as a preliminary limit with a final limit to be set after optimization testing. While this appears to be a reasonable approach for setting a preliminary limit, we are cautious about the validity of the claims at the risk of additional amount of haze should the claims prove false.

[1] White Paper: Selective Non-Catalytic Reduction (SNCR) for Controlling NOx emissions. Institute of Clean Air Companies. February 2008.

Optimization Period

The Forest Service is concerned about the nearly three year period allowed in the BART compliance order between the time of SNCR installation and when results from the SNCR optimization study are due, which allows Ecology to set a new NOx emission limit.

One can infer from Paragraph 1.1 and 1.2 that the SNCR system must be installed and operating by January 1, 2013. Condition 5.2.1 requires that within 3 months (April 30, 2013), TransAlta must develop and submit an SNCR optimization plan. Is there a reason why TransAlta must wait until after the SNCR installation to develop and submit an optimization plan? In an effort to expedite the period when the final NOx limit is established, we would like to see TransAlta submit the SNCR optimization plan earlier such that the optimization study can commence immediately after installation is completed.

We also note that Condition 5.2.2.1 identifies that optimization testing is to be completed and reported to Ecology by December 31, 2015. Thus, TransAlta has 32 months after submitting the optimization plan to conduct and report on the results, all this while NOx emission levels could potentially be restricted to lower levels. Thirty two months seems to be an excessively long period for optimization testing to occur. We would like to see this period shortened considerably.

Ammonia Slip During Optimization Testing

Condition 5.2.3 identifies the range of ammonia slip allowed during the optimization testing. Condition 5.2.3.1 requires TransAlta to determine the maximum NOx reduction possible with an ammonia rate not greater than 41 ppmdv. Ammonia emissions are of concern because ammonia participates in the chemical reactions forming haze and fine particulate matter. Typically, ammonia slip is limited to between 2 and 10 ppm[2], thus 41 ppmdv seems unusually high. The reference given to justify the 41 ppmv daily average in the EPA RACT/BACT/LEAR Clearinghouse database appears to be obtained from the 41 lb/h limit associated with the SCR installation for the Sandy Creek Energy PSD permit. All other RBLC references limit ammonia to 10 ppmv or less. Further inquiry into TCEQ's Preliminary Determination Summary for Sandy Creek Energy, revealed that ammonia slip is actually limited to 10 ppmv on an hourly basis and 3 ppmv on an annual basis[3]. We understand the need for flexibility during the optimization period, but remain concerned about allowing such high ammonia slip to occur during the optimization testing period. We request that Ecology revisit this limit and decrease it to a more restrictive level.

Evaluation of Test Results

Given the importance of the test results in determining the final BART NOx limit, we would like the opportunity to review and provide comment on the test results. We expect the results to be able to demonstrate an additional 20-30% reduction in NOx emissions beyond the limit associated with Flex Fuels alone. As TransAlta has been expressing concern about their ability to meet this limit due to boiler configuration, we trust Ecology Staff will assess the merits of these claims during the optimization testing.

Your consideration of our comments is greatly appreciated. Should you have any questions, please contact Rick Graw, Air Quality Program Manager at 503 808-2918.

Sincerely,

Jeff Walter

JEFF P. WALTER
Director, Natural Resources

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[2] Air Pollution Control Technology Fact Sheet: Selective Non-Catalytic Reduction. EPA-452/F-03-031.
[3] Texas Commission on Environmental Quality, Preliminary Determination for Sandy Creek Energy Associates, LLC. https://webmail.tceq.state.tx.us/gw/webpub.

Section B-10 Ecology's Summary of the U.S. Department of the Interior National Parks Service's Comments and Ecology's Response

The following is a summary of the comments offered by the USDI-NPS on the revised draft documents.

Comments on adequacy of basis for proposed initial emission limit:
The USDI-NPS states that Ecology has not provided a strong technical justification for changing the emissions limits that were the basis of the supporting analysis for the BART determination. The USDI-NPS recommends that Ecology use a 0.18 lb/MMBtu emissions limit until TransAlta demonstrates through the optimization study that the limit is not practical.

Response:
Ecology has provided additional information and rationale for our proposal in the draft revisions to the order for a lower than anticipated initial NO_x reduction (initial higher emission limitation). Ecology and the company both anticipate that if the SNCR vendor's computational fluid dynamics modeling were available, that a lower number would be in this draft revision. However, this modeling data is not available on a timeline to meet the requirements in state law to issue a revised compliance order by December 31, 2011.

Comment on a proposal for an alternative emission limitation:
The USDI-NPS proposed an alternative of establishing enforceable emissions reductions equivalent to USDI-NPS's expectation of a 25% NO_x reduction.

This proposal would establish a cap on total NO_x emissions from both units that would be calculated from applying a limit of 0.18 lb NO_x/ MMBtu on the average operating rate from the initiation of SNCR limits on January 1, 2013 through the shutdown dates established by state law. The cap would be in total tons for the remaining lifetime of the plant. The company would then shut down the plant when the NO_x cap is reached. The USDI-NPS anticipates that this approach would result in the plant shutting down earlier than the dates in the state law.

Response:
This is an intriguing concept that could have been considered when the new law was being drafted. However, in Ecology's view, this proposal goes beyond both the law and the negotiations that led to the legislation that will result in the decommissioning of the units. The primary objective of the legislation was to reduce greenhouse gas emissions. The legislation does include a NO_x reduction technology, but no specific emission limits. Decommissioning will result in zero emissions of all pollutants.

Section B-11 U.S. Department of the Interior National Parks Service's Comments

United States Department of the Interior

NATIONAL PARK SERVICE
Air Resources Division
P.O. Box 25287
Denver, CO 80225

IN REPLY REFER TO:

N3615 (2350)

September 29, 2011

Stuart Clark
Manager, Air Quality Program
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Dear Mr. Clark:

On August 26, 2011, we received notice of availability for review of Washington Department of Ecology's Compliance Order and Technical Support Document for Best Available Retrofit Technology (BART) for TransAlta's Centralia Power Plant to comply with the law enacted by the Washington Legislature earlier this year. In compliance with that law, TransAlta will shut down Unit 1 by 2020 and Unit 2 by 2025 to reduce greenhouse gas emissions. To fulfill the BART requirements, TransAlta will operate selective non-catalytic reduction (SNCR) technology on both units beginning January 2013.

The Compliance Order specifically references the BART Determination Support Document and the BART Analyses for the Centralia Power Plant for further information. The BART analyses assumed that SNCR would achieve a 25% reduction in nitrogen oxide emissions (NO_x) and an emissions limit of 0.18 lb/mmBtu for a 30-day rolling average.

The revised Compliance Order now proposes a control efficiency of 10% reduction in NO_x emissions and an emissions limit of 0.216 lb/mmBtu for a 30-day rolling average. An optimization study is planned to determine what control efficiency is actually feasible for SNCR at Centralia.

Ecology has not provided a strong technical justification for changing the emissions limits that were the basis of the supporting analyses for the BART determination. The change appears to be based solely on a request by TransAlta in response to vendors who declined to guarantee emissions limits before testing. If Ecology grants TransAlta's proposal for a higher emissions limit, there is no incentive for TransAlta to improve that limit through the proposed optimization project. Instead we recommend that Ecology

retain the 0.18 lb/mmBtu emissions limit until TransAlta demonstrates through the optimization project that the limit is not practical.

Alternatively, Ecology could establish enforceable emissions reductions equivalent to the original expectation of a 25% NO_x reduction. One way to accomplish this is to set a NO_x budget for the remaining life of the facility. Based on data from the Clean Air Markets Division, Centralia's annual average heat input for 2008-2010 was 99 million mmBtu/yr. Assuming future utilitization equivalent to 2008-2010, or 50 million mmBtu/yr for each unit, and 0.18 lb NO_x per mmBtu limit beginning in January 2013, NO_x emissions over the remaining life of the facility (eight years for one unit and 13 years for the other unit) would be 94,500 tons. A lifetime cap of 94,500 tons of NO_x could be achieved either by improving efficiency of the SNCR, reducing facility utilitization compared to 2008-2010, or closing one or both units earlier than the mandated closure dates. This approach would provide greater operational flexibility for TransAlta while still accomplishing the expected NO_x reductions. An annual emissions budget would provide a similar alternative. To meet BART requirements, these emissions budgets would need to be enforceable.

We appreciate the opportunity to work with the State to improve visibility in our Class I national parks and wilderness areas. If you have questions, please contact Pat Brewer of my staff, at (303) 969-2153.

Sincerely,

Carol McCoy
Chief, Air Resources Division

cc:
Rick Albright
Director, Office of Air, Water, and Toxics
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