

Washington State Regional Haze State Implementation Plan

Appendix B Supplement

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

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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 is included in Section B-7.

On August 26, 2011 Ecology 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 the 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

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

CHRISTINE GREGOIRE

Governor of the State of Washington

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

FILED

April 29, 2011

**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.

1 AN ACT Relating to coal-fired electric generation facilities;
2 amending RCW 80.80.040, 80.80.070, 80.50.100, 43.160.076, and
3 19.280.030; reenacting and amending RCW 80.80.010 and 80.80.060; adding
4 new sections to chapter 80.80 RCW; adding a new section to chapter
5 43.155 RCW; adding new sections to chapter 80.04 RCW; adding a new
6 section to chapter 80.70 RCW; adding a new chapter to Title 80 RCW;
7 creating a new section; providing an expiration date; and providing a
8 contingent expiration date.

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

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

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

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

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

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

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

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

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

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

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

34 (3) "Average available greenhouse gas emissions output" means the
35 level of greenhouse gas emissions as surveyed and determined by the
36 energy policy division of the department of commerce under RCW
37 80.80.050.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

16 (9) The department shall establish an output-based methodology to
17 ensure that the calculation of emissions of greenhouse gases for a
18 cogeneration facility recognizes the total usable energy output of the
19 process, and includes all greenhouse gases emitted by the facility in
20 the production of both electrical and thermal energy. In developing
21 and implementing the greenhouse gas emissions performance standard, the
22 department shall consider and act in a manner consistent with any rules
23 adopted pursuant to the public utilities regulatory policy act of 1978
24 (16 U.S.C. Sec. 824a-3), as amended.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

6 (1) No electrical company may enter into a long-term financial
7 commitment unless the baseload electric generation supplied under such
8 a long-term financial commitment complies with the greenhouse (~~gases~~
9 ~~gas~~) gas emissions performance standard established under RCW
10 80.80.040.

11 (2) In order to enforce the requirements of this chapter, the
12 commission shall review in a general rate case or as provided in
13 subsection (5) of this section any long-term financial commitment
14 entered into by an electrical company after June 30, 2008, to determine
15 whether the baseload electric generation to be supplied under that
16 long-term financial commitment complies with the greenhouse (~~gases~~
17 ~~gas~~) gas emissions performance standard established under RCW
18 80.80.040.

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

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

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

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

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

23 (7) The commission shall consult with the department to apply the
24 procedures adopted by the department to verify the emissions of
25 greenhouse gases from baseload electric generation under RCW 80.80.040.
26 The department shall report to the commission whether baseload electric
27 generation will comply with the greenhouse ~~((gases—{gas}))~~ gas
28 emissions performance standard for the duration of the period the
29 baseload electric generation is supplied to the electrical company.

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

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

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

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

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

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

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

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

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

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

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

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

3 (1) By January 1, 2012, the governor on behalf of the state shall
4 enter into a memorandum of agreement that takes effect on April 1,
5 2012, with the owners of a coal-fired baseload facility in Washington
6 that emitted more than one million tons of greenhouse gases in any
7 calendar year prior to 2008. The memorandum of agreement entered into
8 by the governor may only contain provisions authorized in this section,
9 except as provided under section 108 of this act.

10 (2) The memorandum of agreement must:

11 (a) Incorporate by reference RCW 80.80.040, 80.80.060, and
12 80.80.070 as of the effective date of this section;

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

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

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

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

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

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

35 (4) The memorandum of agreement must:

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

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

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

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

12 (7) If the memorandum of agreement is not signed by January 1,
13 2012, the governor must impose requirements consistent with the
14 provisions in subsection (2)(b) of this section.

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

17 No state agency or political subdivision of the state may adopt or
18 impose a greenhouse gas emission performance standard, or other
19 operating or financial requirement or limitation relating to greenhouse
20 gas emissions, on a coal-fired electric generation facility located in
21 Washington in operation on or before the effective date of this section
22 or upon an electric utility's long-term purchase of coal transition
23 power, that is inconsistent with or in addition to the provisions of
24 RCW 80.80.040 or the memorandum of agreement entered into under section
25 106 of this act.

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

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

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

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

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

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

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

32 ~~((2))~~ (3)(a) Within sixty days of receipt of the council's report
33 the governor shall take one of the following actions:

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

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

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

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

14 (~~(3)~~) (4) The rejection of an application for certification by
15 the governor shall be final as to that application but shall not
16 preclude submission of a subsequent application for the same site on
17 the basis of changed conditions or new information.

18 NEW SECTION. **Sec. 201.** (1) A facility subject to closure under
19 either RCW 80.80.040(3)(c) or a memorandum of agreement under section
20 106 of this act, or both, must provide the department of ecology with
21 a plan for the closure and postclosure of the facility at least twenty-
22 four months prior to facility closure or twenty-four months prior to
23 start of decommissioning work, whichever is earlier. This plan must be
24 consistent with the rules established by the energy facility site
25 evaluation council for site restoration and preservation applicable to
26 facilities subject to a site certification agreement under chapter
27 80.50 RCW and include but not be limited to:

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

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

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

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

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

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

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

9 NEW SECTION. **Sec. 202.** (1) A facility subject to closure under
10 either RCW 80.80.040(3)(c) or a memorandum of agreement under section
11 106 of this act, or both, must guarantee funds are available to perform
12 all activities specified in the decommissioning plan developed under
13 section 201 of this act. The amount must equal the cost estimates
14 specified in the decommissioning plan and must be updated annually for
15 inflation. All guarantees under this section must be assumed by any
16 successor owner, parent company, or holding company.

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

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

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

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

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

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

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

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

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

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

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

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

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

12 (3) The board shall solicit qualifying projects to plan, design,
13 and construct public facilities needed to attract new industrial and
14 commercial activities in areas impacted by the closure or potential
15 closure of large coal-fired electric generation facilities, which for
16 the purposes of this section means a facility that emitted more than
17 one million tons of greenhouse gases in any calendar year prior to
18 2008. The projects should be consistent with any applicable plans for
19 major industrial activity on lands formerly used or designated for
20 surface coal mining and supporting uses under RCW 36.70A.368. When the
21 board receives timely and eligible project applications from a
22 political subdivision of the state for financial assistance for such
23 projects, the board from available funds shall give priority
24 consideration to such projects.

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

27 The board shall solicit qualifying projects to plan, design, and
28 construct public works projects needed to attract new industrial and
29 commercial activities in areas impacted by the closure or potential
30 closure of large coal-fired electric generation facilities, which for
31 the purposes of this section means a facility that emitted more than
32 one million tons of greenhouse gases in any calendar year prior to
33 2008. The projects should be consistent with any applicable plans for
34 major industrial activity on lands formerly used or designated for
35 surface coal mining and supporting uses under RCW 36.70A.368. When the
36 board receives timely and eligible project applications from a

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

35 (10) This section expires December 31, 2025.

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

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

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

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

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

19 (c) An assessment of commercially available, utility scale
20 renewable and nonrenewable generating technologies including a
21 comparison of the benefits and risks of purchasing power or building
22 new resources;

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

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

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

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

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

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

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

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

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

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

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

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

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

21 (2) For the purposes of this section, an applicant means the owner
22 of a coal-fired electric generation facility subject to RCW
23 80.80.040(3)(c).

24 (3) This section expires December 31, 2025, or when the station-
25 generating capability of all natural gas-fired generation plants
26 approved under this section equals the station-generating capability
27 from a coal-fired electric generation facility subject to RCW
28 80.80.040(3)(c).

29 NEW SECTION. **Sec. 307.** If any provision of this act or its
30 application to any person or circumstance is held invalid, the
31 remainder of the act or the application of the provision to other
32 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



Page two
May 5, 2011
Pat Brewer

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/hq2rysmppap5du9hw>

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 NO_x 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 ppm_{dv}, 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



United States
Department of
Agriculture

Forest
Service

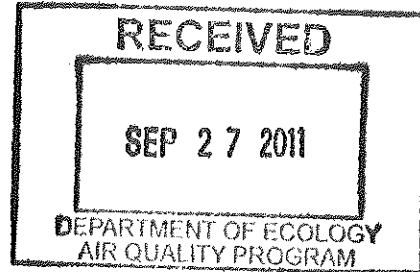
Pacific
Northwest
Region

333 SW First Avenue (97204)
PO Box 3623
Portland, OR 97208-3623
503-808-2468

File Code: 2580

Date: September 23, 2011

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 NO_x 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:

NO_x Emission Limits Associated with SNCR Technology

The BART emission limits for NO_x in the proposed revision to the Compliance Order, are described in section 1.1. Condition 1.1.1 limits NO_x to 0.24 lbs/MMBtu after December 31, 2012, and appears to be associated with the use of low NO_x 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 NO_x 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 NO_x emission limitation is 0.216 lbs/MMBtu, 30 operating day rolling average. This is equivalent to a 10% decrease in NO_x emissions after the installation of SNCR, before SNCR system optimization. This differs from our expectations of a 20-30% reduction in NO_x emission beyond that achieved with Low NO_x Burners (LNB)/Combustion modifications¹. TransAlta has expressed some concern about its ability to meet the expected NO_x 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 NO_x emissions. Institute of Clean Air Companies. February 2008.
Final 2011 Updates



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 ppm_{dv}. 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 ppm², thus 41 ppm_{dv} seems unusually high. The reference given to justify the 41 ppm_{dv} 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 ppm_v or less. Further inquiry into TCEQ's Preliminary Determination Summary for Sandy Creek Energy, revealed that ammonia slip is actually limited to 10 ppm_v on an hourly basis and 3 ppm_v on an annual basis³. 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 P. WALTER
Director, Natural Resources

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



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE

Air Resources Division

P.O. Box 25287

Denver, CO 80225



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 utilization 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 utilization 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
U.S. EPA Region 10
1200 Sixth Avenue
Seattle, WA 98101