



## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[EPA-R10-OAR-2020-0732, FRL-10020-07-Region 10]

#### **Air Plan Approval; WA; Regional Haze Best Available Retrofit Technology Revision for TransAlta Centralia Generation Plant**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to approve a source-specific State Implementation Plan (SIP) revision submitted by the Washington State Department of Ecology (Ecology) on December 18, 2020. The SIP revision makes changes to nitrogen oxide control requirements for the TransAlta Centralia Generation Plant (TransAlta). These requirements were established in an order issued to TransAlta by the state to satisfy the Clean Air Act Best Available Retrofit Technology Requirements (BART) put in place by Congress to reduce regional haze and restore visibility in national parks and wilderness areas. The changes submitted by the state are intended to improve the operation of pollution control equipment at TransAlta while continuing to meet BART requirements.

**DATES:** Comments must be received on or before [**Insert date 30 days after date of publication in the *Federal Register***].

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R10-OAR-2020-0732 at <https://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from *Regulations.gov*. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include

discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

**FOR FURTHER INFORMATION CONTACT:** Jeff Hunt, EPA Region 10, 1200 Sixth Avenue – Suite 155, Seattle, WA 98101, at (206) 553-0256, or [hunt.jeff@epa.gov](mailto:hunt.jeff@epa.gov).

**SUPPLEMENTARY INFORMATION:** Throughout this document whenever “we,” “us,” or “our” is used, it is intended to refer to the EPA.

## **I. Background**

### *Visibility and Regional Haze*

Regional haze is air pollution that impairs visibility, including visual range and/or colorization, across a broad geographic area. The air pollution sources that contribute to regional haze include but are not limited to: industrial sources; cars, trucks and other mobile sources; and area sources. These source categories emit fine particulate matter (PM<sub>2.5</sub>), in addition to precursor gases such as sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>) that form secondary aerosols in the atmosphere. Atmospheric sulfate, nitrate, organic carbon compounds, elemental carbon, soil dust, and other compounds impair visibility by scattering and absorbing light, and reduces clarity, color, and visual range of visual scenes.

### *Clean Air Act Requirements*

In 1977, Congress added section 169A to the Clean Air Act (CAA or Act) creating a program to protect visibility in the nation’s national parks and wilderness areas (Class I areas). This section of the CAA establishes national visibility goals in Class I areas as those goals relate to manmade air pollution. See CAA section 169A(a)(1). On December 2, 1980, the EPA promulgated regulations to address visibility impairment in Class I areas that is “reasonably attributable” to a single source or small group of sources, i.e., “reasonably attributable visibility

impairment” (RAVI) (45 FR 80084). These RAVI regulations represented the first phase in addressing visibility impairment.

In 1990, Congress added section 169B to the CAA to address regional haze issues. The EPA promulgated a rule to implement this statutory requirement on July 1, 1999 (64 FR 35713) (the Regional Haze Rule or RHR). The RHR revised the existing visibility regulations to integrate regional haze provisions and to establish a comprehensive visibility protection program for Class I areas. The requirements for regional haze, found at 40 CFR 51.308 and 51.309, are included in the EPA’s visibility protection regulations at 40 CFR part 51, subpart P, which were most recently updated on January 10, 2017 (82 FR 3078).

### *Pollution Controls*

With respect to this proposed action, section 169A of the CAA directs states to evaluate the use of retrofit controls at certain larger, often uncontrolled, older stationary sources in order to address visibility impacts from these sources. Specifically, section 169A(b)(2)(A) of the CAA requires states to revise their SIPs to contain such measures as may be necessary to make reasonable progress towards the natural visibility goal, including a requirement that certain categories of existing major stationary sources built between 1962 and 1977 procure, install, and operate the “Best Available Retrofit Technology” as determined by the state. States are directed to conduct BART determinations for such sources that may be anticipated to cause or contribute to any visibility impairment in a Class I area.

To assist states in determining which sources are subject to BART requirements and what emission limits are appropriate for each subject source, the EPA published the *Guidelines for BART Determinations Under the Regional Haze Rule* at Appendix Y to 40 CFR part 51 (hereinafter referred to as “BART Guidelines”) (70 FR 39104, July 6, 2005). In making a BART applicability determination for existing sources (such as TransAlta) that fall into certain categories, e.g. fossil fuel-fired electric generating plants with total generating capacity in excess of 750 megawatts, a state must use the specified approach set forth in the BART Guidelines. A

state is encouraged, but not required, to follow the BART Guidelines in making BART determinations for other types of sources. Regardless of source size or type however, a state must meet the CAA and regulatory requirements for selection of BART, and the state's BART analysis and determination must be reasonable in light of the overarching purpose of the regional haze program. States must address all visibility impairing pollutants emitted by a source in the BART determination process. The most significant visibility-impairing pollutants are NO<sub>x</sub>, SO<sub>2</sub>, and particulate matter. The regional haze SIP must include source-specific BART emission limits and compliance schedules for each source subject to BART.

*TransAlta Centralia Generation Plant*

TransAlta is a coal-fired electric generation plant located in Centralia, Washington. The plant, which operates two identical coal-fired utility steam generating units (BW21 and BW22), has a total generating capacity in excess of 750 megawatts and is subject to CAA BART requirements to control emissions of visibility-impairing pollutants. On June 11, 2003, the EPA approved a revision to the Washington SIP for visibility which included controls for NO<sub>x</sub>, SO<sub>2</sub>, and particulate matter for TransAlta (68 FR 34821). In the action, the EPA determined that the prescribed controls satisfied BART requirements for both SO<sub>2</sub> and particulate matter. We note that the 2003 BART determinations for SO<sub>2</sub> and particulate matter are not at issue in this proposed action, which focuses only on BART for NO<sub>x</sub>.

In our 2003 action, the EPA determined that the NO<sub>x</sub> controls established for TransAlta, while better than prior controls, did not represent BART. Subsequently, Ecology issued an administrative order to TransAlta that, among other things, established a NO<sub>x</sub> emission limit of 0.24 pounds per million British thermal units (lb/MMBtu) on the coal-fired units and coal quality requirements (June 18, 2010, BART Order 6426). Ecology revised the June 18, 2010 BART Order 6426 on December 13, 2011 (First Revised BART Order 6426), to incorporate provisions of a 2011 Memorandum of Agreement (2011 MOA) between TransAlta and the Governor of the

State of Washington. The First Revised BART Order 6426 and the 2011 MOA are included in the docket for this action.

The 2011 MOA was negotiated under the statutory provisions of Revised Code of Washington (RCW) 80.80.100 and focused on greenhouse gas emission performance standards. While the greenhouse gas performance standards are outside the scope of the SIP (which is primarily focused on the control of criteria pollutants such as particulate matter, NO<sub>x</sub>, and SO<sub>2</sub>), several of the provisions negotiated the 2011 MOA were incorporated into the First Revised BART Order 6426 because they provide significant regional haze benefit. Specifically, the First Revised BART Order 6426 required selective noncatalytic reduction (SNCR) to be installed by January 1, 2013. The First Revised BART Order 6426 also provided that one coal unit must cease burning coal by December 31, 2020, and the other coal unit cease burning coal by December 31, 2025, unless Ecology determines that state or federal law requires selective catalytic reduction (SCR) to be installed on either unit.<sup>1</sup> Due to the installation of SNCR, among other controls, Ecology's First Revised BART Order 6426 established a more stringent NO<sub>x</sub> emission limit of 0.21 lb/MMBtu. Ecology submitted the First Revised BART Order 6426 as a revision to the regional haze SIP on December 29, 2011. On December 6, 2012, the EPA approved Ecology's First Revised BART Order 6426 as meeting CAA BART requirements for NO<sub>x</sub> control at TransAlta and approved this order in the Washington SIP (77 FR 72742).

## **II. Electrostatic Precipitator Fouling and Installation of Combustion Optimization System with Neural Network**

In January 2020, TransAlta requested a change to the First Revised BART Order 6426 to mitigate fouling of the electrostatic precipitators at the plant that are used to control particulate matter emissions. TransAlta stated that the fouling was being caused by ammonia slip from the SNCR used to control NO<sub>x</sub> emissions. In the submission Ecology explained, "In the summer of

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<sup>1</sup> On December 31, 2020, as scheduled, TransAlta shut down and ceased combustion of coal at BW21 (a.k.a. Unit #1). As noted by TransAlta, BW21 is retired from service. See December 31, 2020 e-mail in the docket.

2019, TransAlta experienced emission opacity readings that would have exceeded the opacity limits if TransAlta had not reduced plant capacity to compensate. During a maintenance shut-down of the facility, the electrostatic precipitators (ESPs) were examined. The ESPs had a visual fouling of all interior components, which dramatically reduced their efficiency. Samples of the material in the ESPs were analyzed and identified as ammonia sulfate. The source of ammonia in the system was from the reactions of urea in the SNCR system.”

In coordination with Southwest Clean Air Agency (the local clean air authority) and Ecology, TransAlta installed a computerized emission control system called a Combustion Optimization System with Neural Network program (Neural Net) to decrease the ammonia slip in the SNCR. At the end of calendar year 2019, TransAlta had enough data to demonstrate that use of the Neural Net system would enable TransAlta to meet a more stringent 0.18 lb/MMBtu emission standard than the 0.21 lb/MMBtu required under the First Revised BART Order 6426 for the unit that remains operational after 2020 (BW21 ceased burning coal on December 31, 2020 and is now retired from service. Therefore, this requirement applies to the only remaining unit, BW22).

### **III. Summary of Revisions to the First Revised BART Order 6426**

In response to TransAlta’s request, Ecology amended the First Revised BART Order 6426 on July 29, 2020 in three primary ways: (1) reducing the NO<sub>x</sub> emission limit for the unit equipped with the Neural Network (2) eliminating unnecessary requirements to prevent further ESP fouling, and (3) revising the language to align with a 2017 amendment to the 2011 MOA signed between the Governor of Washington and TransAlta. Because the Neural Net enables TransAlta to maintain a more stringent NO<sub>x</sub> emission standard, Ecology eliminated several requirements from the First Revised BART Order 6426 that were either no longer necessary or were causing problems with the ESP control device. Specifically, Ecology: 1) removed the requirement of a specific urea injection rate to allow TransAlta to inject urea as needed to meet the new emission standard; 2) removed the requirement to analyze and report nitrogen and sulfur

coal content, or mandate a specific source of coal, because the facility would have to meet NO<sub>x</sub>, SO<sub>2</sub>, and particulate matter emission standards regardless of the coal used, and 3) changed the requirement for ammonia emission monitoring to require monitoring only when using a urea injection rate of greater than 1.5 gallons per minute. Ecology retained the requirement for TransAlta to determine compliance with the NO<sub>x</sub> emission limitation by use of a continuous emission monitoring system meeting the requirements of 40 CFR part 75. As discussed further in this document, the EPA has reviewed these changes and we have determined they are reasonable and consistent with BART and other CAA requirements.

Ecology also updated the First Revised BART Order 6426 to reflect a July 13, 2017 amendment to the 2011 MOA signed between TransAlta and the Governor, included in the docket for this action (2017 MOA). The 2017 amendment states that TransAlta shall, “permanently cease coal-fired power generation operations of one Boiler in 2020 and the other Boiler in 2025, which dates are prior to the 2035 end of their expected useful lives, in each case pursuant to the terms and subject to the conditions of this MOA.” This text is now mirrored in the Schedule for Compliance section of the second revised BART Order 6426 (2020 BART Order 6426). The 2017 MOA makes clear that TransAlta is not precluded from the possibility of retrofitting the facility to natural gas, or other non-coal energy source, as long as it meets the statutory requirements of Chapter 80.80 RCW.

#### **IV. Evaluation of the Washington SIP Submission**

EPA proposes to approve the 2020 BART Order 6426 as meeting BART for NO<sub>x</sub> for TransAlta. The 2020 BART Order 6426 is consistent with the requirements of 40 CFR 51.308(e) and 40 CFR part 51, subpart Y. Specifically, Ecology either retained or strengthened the NO<sub>x</sub> emissions limits. Ecology also justified the removal of certain parametric monitoring and demonstrated that the 2020 BART Order 6426 remains enforceable as a practical matter. Finally, the revision to the Schedule for Compliance section does not substantively change TransAlta’s compliance obligations as compared to the First Revised BART Order 6426. As with the First

Revised BART Order 6426, the 2020 BART Order 6426 will have the practical effect of prohibiting coal burning beyond the specified schedule.

Regarding future repowering of TransAlta with fuels other than coal, in the submission, Ecology stated with respect to regional haze that, “If TransAlta decides to switch to non-coal power generation, a Notice of Construction application would need to be submitted to Southwest Clean Air Agency by the company. Ecology would require the company to do, at a minimum, emissions modeling that would be required under the BART process to quantify the visibility impacts resulting from the operation as a natural gas boiler plant (EGU). This is similar to what we would require of a new power plant to determine if it meets the requirements of WAC 173-400-117, special protection requirements for federal Class I areas.” Ecology further explained, “Since TransAlta has not requested repowering at this time, this issue will not be addressed in this BART order revision.”

The EPA agrees that any non-coal repowering, should TransAlta submit a Notice of Construction application in the future, is outside the scope of this current action focused on the improved NO<sub>x</sub> controls. Any future “new source” as defined in the SIP-approved provisions of Southwest Clean Air Agency (SWCAA) 400-030(77), would need to meet all CAA requirements for protection of the National Ambient Air Quality Standards (NAAQS) and regional haze. Specifically, SWCAA 400-030(77) states:

“New source” means one or more of the following:

- (a) The construction or modification of a “stationary source” that increases the amount of any air contaminant emitted by such “stationary source” or that results in the emission of any air contaminant not previously emitted;
- (b) Any other project that constitutes a “new source” under the Federal Clean Air Act;
- (c) Restart of a “stationary source” after permanent shutdown;
- (d) The installation or construction of a new “emission unit”;

- (e) Relocation of a “stationary source” to a new location, except in the case of portable sources operating under a valid permit as provided in SWCAA 400-110(6);
- (f) Replacement or modification of the burner(s) in a combustion source; or
- (g) Modification of a combustion source to fire a fuel that the source was not previously capable of firing.

Any “new source” as described by the requirements above would require a separate action, subject to public participation requirements, under the SIP-approved new source review permitting provisions of SWCAA 400 or Chapter 173-400 Washington Administrative Code (WAC) for Prevention of Significant Deterioration (PSD) provisions implemented directly by Ecology.

## **V. Proposed Action**

The EPA proposes to approve and incorporate by reference into the Washington SIP the 2020 BART Order 6426 for the TransAlta Centralia Generation Plant, state effective July 29, 2020.<sup>2</sup> The EPA is also proposing to remove from incorporation by reference the First Revised BART Order 6426 for the TransAlta Centralia Generation Plant, state effective December 13, 2011.<sup>3</sup> The EPA proposes to find that the changes are designed to improve the operation of pollution controls at the plant and are consistent with regional haze and other CAA requirements.

## **VI. Incorporation by Reference**

In this document, the EPA is proposing to include in a final rule, regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is proposing to incorporate by reference the 2020 BART Order 6246 to TransAlta Centralia Generation Plant, state effective July 29, 2020, as described in Section III of this preamble. Also, in this document, the EPA is proposing to remove, in a final EPA rule, regulatory text that

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<sup>2</sup> In the Matter of an Administrative Order Against, TransAlta Centralia Generation LLC, Second Revision: Order No. 6426, except the undesignated introductory text, the section titled “Findings,” and the undesignated text following condition 9, state effective July 29, 2020.

<sup>3</sup> In the Matter of an Administrative Order Against, TransAlta Centralia Generation LLC, First Revision: Order No. 6426, except the undesignated introductory text, the section titled “Findings,” and the undesignated text following condition 13, state effective December 13, 2011.

includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is proposing to remove the incorporation by reference of the first revised BART Order 6246 to TransAlta Centralia Generation Plant, state-effective December 13, 2011, as described in Section V of this preamble. The EPA has made, and will continue to make, these documents generally available through <https://www.regulations.gov> and at the EPA Region 10 Office (please contact the person identified in the “For Further Information Contact” section of this preamble for more information).

## **VII. Statutory and Executive Order Reviews**

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA’s role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this proposed action merely approves state law as meeting federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a “significant regulatory action” subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);

- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of the requirements would be inconsistent with the Clean Air Act; and
- Does not provide the EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

The SIP is not approved to apply on any Indian reservation land in Washington except as specifically noted below and is also not approved to apply in any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the proposed rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000). Washington's SIP is approved to apply on non-trust land within the exterior boundaries of the Puyallup Indian Reservation, also known as the 1873 Survey Area. Under the *Puyallup Tribe of Indians Settlement Act of 1989*, 25 U.S.C. 1773, Congress explicitly provided state and local agencies in Washington authority over activities on non-trust lands within the 1873 Survey Area. Consistent with EPA policy, the EPA provided a consultation opportunity to the Puyallup Tribe, and other tribes located in Washington, in a letter dated September 4, 2020.

#### **List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

**Authority:** 42 U.S.C. 7401 *et seq.*

Dated: February 19, 2021.

Michelle L. Pirzadeh,  
Acting Regional Administrator,  
Region 10.

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