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40 CFR Part 52

Approval, Disapproval and Promulgation of Implementation Plans; State of Wyoming; Regional Haze State Implementation Plan; Federal Implementation Plan for Regional Haze; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Part 52**

[EPA-R08-OAR-2012-0026, FRL-9820-4]

Approval, Disapproval and Promulgation of Implementation Plans; State of Wyoming; Regional Haze State Implementation Plan; Federal Implementation Plan for Regional Haze**AGENCY:** Environmental Protection Agency.**ACTION:** Proposed rule.

SUMMARY: EPA is proposing to partially approve and partially disapprove a State Implementation Plan (SIP) submitted by the State of Wyoming on January 12, 2011, that addresses regional haze. This SIP revision was submitted to address the requirements of the Clean Air Act (CAA or “the Act”) and our rules that require states to prevent any future and remedy any existing anthropogenic impairment of visibility in mandatory Class I areas caused by emissions of air pollutants from numerous sources located over a wide geographic area (also referred to as the “regional haze program”). States are required to assure reasonable progress toward the national goal of achieving natural visibility conditions in Class I areas. EPA is taking this action pursuant to section 110 of the CAA.

EPA is also proposing a Federal Implementation Plan (FIP) to address the deficiencies identified in our proposed partial disapproval of Wyoming’s regional haze SIP. In lieu of our proposed FIP, or a portion thereof, we will propose approval of a SIP revision as expeditiously as practicable if the State submits such a revision and the revision matches the terms of our proposed FIP. We will also review and take action on any regional haze SIP submitted by the state to determine whether such SIP is approvable, regardless of whether or not its terms match those of the FIP. We encourage the State to submit a SIP revision to replace the FIP, either before or after our final action.

DATES: *Comments:* Written comments must be received at the address below on or before August 9, 2013. *Public Hearing:* A public hearing for this proposal is scheduled to be held on Monday, June 24, 2013, at the Hershchler Building, Room 1699, 122 W. 25th St., Cheyenne, Wyoming 82002. The public hearing will be held from 1 p.m. until 5 p.m., and again from 6 p.m. until 8 p.m.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R08-

OAR-2012-0026, by one of the following methods:

- *http://www.regulations.gov.* Follow the on-line instructions for submitting comments.

- *Email:* r8airrulemakings@epa.gov.
- *Fax:* (303) 312-6064 (please alert the individual listed in the **FOR FURTHER INFORMATION CONTACT** if you are faxing comments).

- *Mail:* Carl Daly, Director, Air Program, Environmental Protection Agency (EPA), Region 8, Mailcode 8P-AR, 1595 Wynkoop Street, Denver, Colorado 80202-1129.

- *Hand Delivery:* Carl Daly, Director, Air Program, Environmental Protection Agency (EPA), Region 8, Mailcode 8P-AR, 1595 Wynkoop, Denver, Colorado 80202-1129. Such deliveries are only accepted Monday through Friday, 8:00 a.m. to 4:30 p.m., excluding Federal holidays. Special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA-R08-OAR-2012-0026. EPA’s policy is that all comments received will be included in the public docket without change and may be made available online at <http://www.regulations.gov>, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through <http://www.regulations.gov> or email. The <http://www.regulations.gov> Web site is an “anonymous access” system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to EPA, without going through <http://www.regulations.gov>, your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional instructions on submitting comments, go to Section I. General Information of the

SUPPLEMENTARY INFORMATION section of this document.

Docket: All documents in the docket are listed in the <http://www.regulations.gov> index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly-available docket materials are available either electronically in <http://www.regulations.gov> or in hard copy at the Air Program, Environmental Protection Agency (EPA), Region 8, Mailcode 8P-AR, 1595 Wynkoop, Denver, Colorado 80202-1129. EPA requests that if at all possible, you contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section to view the hard copy of the docket. You may view the hard copy of the docket Monday through Friday, 8:00 a.m. to 4:00 p.m., excluding Federal holidays.

FOR FURTHER INFORMATION CONTACT: Laurel Dygowski, Air Program, U.S. Environmental Protection Agency, Region 8, Mailcode 8P-AR, 1595 Wynkoop, Denver, Colorado 80202-1129, (303) 312-6144, dygowski.laurel@epa.gov.

SUPPLEMENTARY INFORMATION:**Definitions**

For the purpose of this document, we are giving meaning to certain words or initials as follows:

- The words or initials *Act* or *CAA* mean or refer to the Clean Air Act, unless the context indicates otherwise.
- The initials *AFRC* mean or refer to air-fuel ratio controls.
- The initials *BART* mean or refer to Best Available Retrofit Technology.
- The initials *CAMx* mean or refer to Comprehensive Air Quality Model.
- The initials *CMAQ* mean or refer to Community Multi-Scale Air Quality modeling system.
- The initials *CEMS* mean or refer to continuous emission monitoring systems.
- The initials *EC* mean or refer to elemental carbon.
- The initials *EGUs* mean or refer to Electric Generating Units.
- The initials *EGR* mean or refer to exhaust gas recirculation.
- The words *EPA*, *we*, *us* or *our* mean or refer to the United States Environmental Protection Agency.
- The initials *ESP* mean or refer to electrostatic precipitator.
- The initials *FGC* mean or refer to flue gas conditioning.
- The initials *FGD* mean or refer to flue gas desulfurization.
- The initials *FGR* mean or refer to external flue gas recirculation.

in Wyoming. In addition, we have since finalized action on the SIP for Arizona, and are requiring LNBs plus SCR on three units under a FIP.

As stated in the BART Guidelines pertaining to affordability: “1. Even if the control technology is cost effective, there may be cases where the installation of controls would affect the viability of continued plant operations. 2. There may be unusual circumstances that justify taking into consideration the conditions of the plant and the economic effects of requiring the use of a given control technology. These effects would include effects on product prices, the market share, and profitability of the source. Where there are such unusual circumstances that are judged to affect plant operations, you may take into consideration the conditions of the plant and the economic effects of requiring the use of a control technology. Where these effects are judged to have a severe impact on plant operations you may consider them in the selection process, but you may wish to provide an economic analysis that demonstrates, in sufficient detail for public review, the specific economic effects, parameters, and reasoning. (We recognize that this review process must preserve the confidentiality of sensitive business information). Any analysis may also consider whether other competing plants in the same industry have been required to install BART controls if this information is available.” 40 CFR part 50, Appendix Y, IV.E.3.

Based on the points made by PacifiCorp and noting the additional requirements in the proposed FIP for Wyoming, the finalized FIP for Arizona, and the possibility of additional

requirements in a future FIP or SIP for Utah, EPA is proposing that the additional time to install controls under the State’s LTS on Jim Bridger Unit 1 and Unit 2 is warranted under the affordability provisions in the BART Guidelines discussed above. Although neither the CAA nor the RHR require states or EPA to consider the affordability of controls or ratepayer impacts as part of a BART analysis, the BART guidelines allow (but do not require) consideration of “affordability” in the BART analysis.

EPA is proposing to determine that BART for all units at Jim Bridger would be SCR if the units were considered individually, based on the five factors, without regard for the controls being required at other units in the PacifiCorp system. However, when the cost of BART controls at other PacifiCorp-owned EGUs is considered as part of the cost factor for the Jim Bridger Units, EPA is proposing that Wyoming’s determination that NO_x BART for these units is new LNB plus OFA for is reasonable. Considering costs broadly, it would be unreasonable to require any further retrofits at this source within five years of our final action. We note that the CAA establishes five years at the longest period that can be allowed for compliance with BART emission limits.

EPA is proposing to approve the SIP with regard to the State’s determination that the appropriate level of NO_x control for Units 1 and 2 at Jim Bridger for purposes of reasonable progress is the SCR-based emission limit in the SIP, with compliance dates of December 31, 2021 for Unit 2 and December 31, 2022 for Unit 1. In the context of reasonable

progress in the second planning period of the regional haze program, we have determined it is appropriate to give considerable deference to the State’s conclusions about what controls are reasonable and when they should be implemented. Thus, we do not find it appropriate to disapprove the State’s preferred compliance deadlines for Jim Bridger Units 1 and 2. As discussed below, we are seeking comment on an alternative proposal to promulgate a FIP for PacifiCorp Jim Bridger Units 1 and 2.

Wyoming’s NO_x BART Determination for Jim Bridger Units 3 and 4

During the 2001–2003 baseline period, PacifiCorp Jim Bridger Units 3 and 4 were equipped with early generation LNBs with permit limits of 0.70 lb/MMBtu (3-hour fixed) and 0.41 lb/MMBtu and 0.45 lb/MMBtu (annual), respectively. The State determined that new LNBs with SOFA, new LNBs with SOFA plus SNCR, and new LNBs with SOFA plus SCR were technically feasible for controlling NO_x emissions. The State did not identify any technically infeasible options.

The State did not identify any energy or non-air quality environmental impacts that would preclude the selection of any of the controls evaluated, and there are no remaining-useful-life issues for this source. Baseline NO_x emissions are 10,643 tpy for each unit based on unit heat input rate of 6,000 MMBtu/hr and 7,884 hours of operation.

A summary of the State’s NO_x BART analysis and the visibility impacts is provided in Table 13 below.

TABLE 13—SUMMARY OF WYOMING’S JIM BRIDGER UNITS 3 AND 4 NO_x BART ANALYSIS—COSTS PER BOILER

Control technology	Emission rate (lb/MMBtu) (30-day rolling average)	Emission reduction (tpy)	Annualized costs	Average cost effectiveness (\$/ton)	Incremental cost effectiveness	Visibility improvement (delta deciview for the maximum 98th percentile impact at Mt. Zirkel Wilderness) ³⁶
New LNB with SOFA	0.26	4,493	\$1,144,969	\$255	—	0.41/0.47
New LNB with SOFA and SNCR	0.20	5,913	2,710.801	459	\$1,103	0.53/0.62
New LNB with SOFA and SCR	0.07	8,987	20,296,400	2,258	5,721	0.80/0.82

The State determined that new LNBs with SOFA were reasonable for NO_x BART for Jim Bridger Units 3 and 4. The State determined that the NO_x BART emission limits for Jim Bridger Units 3 and 4 are both 0.26 lb/MMBtu (30-day rolling average). As explained below,

the State determined SCR was not reasonable for BART.

The State is requiring PacifiCorp to install SCR controls under its LTS. The

³⁶ Unit 4 has different modeling results as the stack parameters used in the modeling are different enough from Units 1–3 to yield different modeled results.

State determined that based on the cost of compliance and visibility improvement presented by PacifiCorp in the BART applications for Jim Bridger Units 3 and 4 and taking into consideration the logistical challenge of managing multiple pollution control installations within the regulatory time

allotted for installation of BART by the RHR, SCR controls would be required under the LTS but not BART (see Chapter 8.3.3 of the SIP). With respect to Jim Bridger Units 3 and 4, the State has required PacifiCorp to install SCR, or other NO_x control systems, to achieve an emission limit of 0.07 lb/MMBtu (30-day rolling average). PacifiCorp is required to meet the 0.07 lb/MMBtu emission rate on Unit 3 prior to December 31, 2015 and on Unit 4 prior to December 31, 2016.

EPA's NO_x BART Determination for Jim Bridger Unit 3 and Unit 4

The EPA agrees with the State's analysis pertaining to energy and non-air quality environmental impacts and remaining-useful-life for this source. EPA determined that baseline NO_x emissions are 7,853 tpy for Unit 3 and 8,133 tpy for Unit 4 based on the actual annual average for the years 2001–2003 (compared to 10,643 tpy that Wyoming relied on as noted above). As explained

above, Wyoming determined that taking into consideration the logistical challenge of managing multiple pollution control installations within the regulatory time allotted for installation of BART by the RHR, SCR controls would be required under the LTS but not BART. A summary of the EPA's NO_x BART analysis and the visibility impacts is provided in Tables 14–17 below.

TABLE 14—SUMMARY OF EPA'S JIM BRIDGER UNIT 3 NO_x BART ANALYSIS

Control technology	Emission rate (lb/MMBtu) (annual average)	Emission reduction (tpy)	Annualized costs	Average cost effectiveness (\$/ton)	Incremental cost effectiveness	Visibility improvement (delta dv for the maximum 98th percentile impact at Mt. Zirkel)
New LNBS with SOFA	0.20	3,710	\$1,167,297	\$315	—	0.50
New LNBS with SOFA and SNCR	0.16	4,539	4,530,069	998	\$4,058	0.61
New LNBS with SOFA and SCR	0.05	6,799	20,135,420	2,961	6,905	0.92

Jim Bridger Unit 3 also impacts other Class I areas. The visibility improvement modeled by EPA at other

Class I areas is shown in Table 15 below.

TABLE 15—JIM BRIDGER UNIT 3: VISIBILITY IMPROVEMENT AT OTHER CLASS I AREAS

Class I area	Visibility improvement (delta dv for the maximum 98th percentile impact) – new LNBS + SOFA	Visibility improvement (delta dv for the maximum 98th percentile impact) – new LNBS + SOFA/ SNCR	Visibility improvement (delta dv for the maximum 98th percentile impact) – new LNBS + SOFA/ SCR
Bridger	0.43	0.54	0.87
Fitzpatrick	0.19	0.23	0.34
Rawah	0.41	0.51	0.75
Rocky Mountain	0.34	0.42	0.65
Grand Teton	0.14	0.17	0.25
Teton	0.14	0.17	0.24
Washakie	0.22	0.19	0.26
Yellowstone	0.24	0.16	0.25

TABLE 16—SUMMARY OF EPA'S JIM BRIDGER UNIT 4 NO_x BART ANALYSIS

Control technology	Emission rate (lb/MMBtu) (Annual Average)	Emission reduction (tpy)	Annualized costs	Average cost effectiveness (\$/ton)	Incremental cost effectiveness	Visibility improvement (delta dv for the maximum 98th percentile impact at Mt. Zirkel)
New LNBS with SOFA	0.19	4,161	\$1,167,297	\$281	—	0.63
New LNBS with SOFA and SNCR	0.15	4,956	4,445,990	897	\$4,127	0.75
New LNBS with SOFA and SCR	0.05	7,108	17,712,336	2,492	6,165	1.01

Jim Bridger Unit 4 also impacts other Class I areas. The visibility

improvement modeled by EPA at other

Class I areas is shown in Table 17 below.

TABLE 17—JIM BRIDGER UNIT 3: VISIBILITY IMPROVEMENT AT OTHER CLASS I AREAS

Class I area	Visibility improvement (delta dv for the maximum 98th percentile impact) – new LNBS + SOFA	Visibility improvement (delta dv for the maximum 98th percentile impact) – new LNBS + SOFA/ SNCR	Visibility improvement (delta dv for the maximum 98th percentile impact) – new LNBS + SOFA/ SCR
Bridger	0.56	0.68	1.00
Fitzpatrick	0.23	0.27	0.39
Rawah	0.45	0.53	0.71
Rocky Mountain	0.42	0.50	0.75
Grand Teton	0.18	0.21	0.30
Teton	0.15	0.18	0.27
Washakie	0.19	0.23	0.29
Yellowstone	0.17	0.20	0.29

As discussed in detail above, because Wyoming relied on visibility modeling methodologies that are inconsistent with the statutory and regulatory requirements, we do not consider Wyoming’s analysis of visibility improvement for the NO_x BART to be reasonable for Jim Bridger Unit 3 and 4. We propose to find that Wyoming’s analysis for this Unit is inconsistent with the statutory and regulatory requirement that “the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.”

Also, we are not relying on the State’s costs due to reasons stated in section VII.C.3.b of this notice. We propose to find that Wyoming did not properly or reasonably “take into consideration the costs of compliance.”

Our analysis follows our BART Guidelines. With the exception of the NO_x emission limits, the visibility improvement analyses, and the cost effectiveness analyses, EPA is proposing to find that the Wyoming regional haze BART analysis NO_x for Jim Bridger Units 3 and 4 fulfills all the relevant requirements of CAA Section 169A and the RHR.

As stated above for Jim Bridger Units 1 and 2, EPA is proposing to determine

that the facts indicate that BART for the all units at Jim Bridger is SCR when the units are considered individually based on the five factors without regard to the status of those factors for other units in the PacifiCorp system. However, when the five factors are considered across all the units, EPA is proposing that BART for Jim Bridger Units 3 and 4 is new LNB plus OFA.

EPA is proposing to approve the SIP with regard to the State’s determination that the appropriate level of NO_x control for Units 3 and 4 at Jim Bridger for purposes of reasonable progress is the SCR-based emission limit in the SIP of 0.07 lb/MMBtu, with compliance dates of December 31, 2015 for Unit 3 and December 31, 2016 for Unit 4. As discussed above for Jim Bridger Units 1 and 2, in the context of reasonable progress in the second planning period of the regional haze program, we have determined it is appropriate to give considerable deference to the State’s conclusions about what controls are reasonable and when they should be implemented. Thus, we do not find it appropriate to disapprove the State’s preferred compliance deadlines for Jim Bridger Units 3 and 4. In addition, the State is requiring PacifiCorp to install

the LTS controls within the timeline that BART controls would have to be installed pursuant to 40 CFR 51.308(e)(iv). Thus, we are proposing to approve the State’s compliance schedule and emission limit of 0.07 lb/MMBtu for Jim Bridger Units 3 and 4 as meeting the BART requirements.

PM BART Determination for Jim Bridger Units 1–4

Units 1, 2, 3, and 4 are currently controlled for PM with ESPs and flue gas conditioning (FGC). The current permit limit for all four units is 0.03 lb/MMBtu. The State determined that fabric filters were technically feasible for controlling PM emissions. The State did not identify any technically infeasible controls or any energy or non-air quality environmental impacts that would preclude the selection of any of the controls evaluated. There are no remaining-useful-life issues for this source. A summary of the State’s PM BART analyses for Units 1–4 is provided in Table 18 below. Baseline PM emissions are 1,064 tpy for Unit 1, 1,750 tpy for Unit 2, 1,348 tpy for Unit 3, and 710 tpy for Unit 4 based on unit heat input rate of 6,000 MMBtu/hr and 7,884 hours of operation per year.

TABLE 18—SUMMARY OF WYOMING’S PACIFICORP JIM BRIDGER UNITS 1–4 PM BART ANALYSIS

Control technology	Control efficiency (%)	Emission rate (lb/MMBtu) (30-day rolling average)	Emission reduction (tpy)	Annualized costs	Average cost effectiveness (\$/ton)
Fabric Filter—Unit 1	66.6	0.015	709	\$6,367,118	\$8,980
Fabric Filter—Unit 2	79.7	0.015	1,395	6,357,658	4,557
Fabric Filter—Unit 3	73.7	0.015	993	6,337,434	6,382
Fabric Filter—Unit 4	50	0.015	355	6,367,118	17,936

The State did not provide visibility improvement modeling for fabric filters, but EPA is proposing to conclude this is reasonable based on the high cost for

fabric filters at each of the units. In addition, we anticipate that the visibility improvement that would result from lowering the limit from 0.03

lb/MMBtu to 0.015 lb/MMBtu would be