Nos. 14-9529, 14-9530, 14-9534

UNITED STATES COURT OF APPEALS
FOR THE TENTH CIRCUIT

STATE OF WYOMING, POWDER RIVER BASIN RESOURCE COUNCIL, BASIN ELECTRIC POWER COOPERATIVE, and PACIFICORP,
Petitioners,

v.

U.S. ENVIRONMENTAL PROTECTION AGENCY,
Respondent.

Petitions for Review of Final Action of the U.S. Environmental Protection Agency

---

BRIEF FOR U.S. ENVIRONMENTAL PROTECTION AGENCY

(Deferred Appendix Appeal)

TODD KIM
Assistant Attorney General

SONYA J. SHEA
Environment and Natural Resources Division
U.S. Department of Justice
999 18th Street
South Terrace, Suite 370
Denver, CO 80202
(303) 844-7231
sonya.shea@usdoj.gov

AMANDA V. LINEBERRY
Environment and Natural Resources Division
U.S. Department of Justice
Post Office Box 7611
Washington, D.C. 20044
(202) 616-5376
amanda.lineberry@usdoj.gov

Oral argument is requested.

TABLE OF CONTENTS

TABLE OF AUTHORITIES vii

PRIOR OR RELATED APPEALS xvii

GLOSSARY xviii

INTRODUCTION 1

STATEMENT OF JURISDICTION 3

STATEMENT OF THE ISSUES 3

STATEMENT OF THE CASE 4

A. Statutory and Regulatory Background 4

1. The Clean Air Act visibility provisions 4

a. BART requirement 6

b. States submit SIPs with EPA oversight 7

2. The Regional Haze Rule 8

a. The Haze Rule's BART provisions 9

b. Reasonable Progress requirements 15

B. Factual Background 17

1. Wyoming's Regional Haze SIP 17

a. Control Options 18

b. Wyoming's Evaluation of SCR 20

2. EPA's 2012 Proposed Rule 22

3. EPA's 2013 Proposed Rule 24

4. EPA's Final Rule 29

5. Comparison of Wyoming's and EPA's BART Determinations 33

SUMMARY OF ARGUMENT 36

STANDARD OF REVIEW 40

I. The CAA and APA Standard of Review 40

II. Deference Due to EPA's Interpretations of the CAA, Interpretations of its Regulations, and its Technical Expertise 44

ARGUMENT 46

I. EPA Acted within Its Statutory Authority in Reviewing Wyoming's BART Determinations and in Promulgating a FIP Where Wyoming's Determinations Were Lacking. 46

A. The CAA and the Haze Rule Give EPA Substantive Oversight Authority in Reviewing SIPs. 46

B. EPA's Framework for Reviewing a State's BART Determinations Ensures They Are Reasonably Moored to the CAA and Haze Rule. 54

II. EPA Reasonably Disapproved Wyoming's BART Determination for Wyodak. 56

A. EPA Appropriately Considered the BART Guidelines and Control Cost Manual in Disapproving Wyoming's BART Determination for Wyodak. 57

1. EPA reasonably looked to the BART Guidelines in evaluating Wyoming's SIP. 57

a. EPA's consideration of the Guidelines as helpful guidance is consistent with the CAA, Haze Rule, and the Guidelines. 58

b. EPA's consideration of the BART Guidelines with regard to Wyodak was reasonable. 60

c. Petitioners' arguments may be time-barred, and EPA's reasonable interpretation is entitled to deference. 63

2. EPA reasonably looked to the Control Cost Manual in evaluating Wyoming's SIP. 65

B. EPA Reasonably Found Wyoming's BART Determination for Wyodak Unreliable Due to Deficiencies in Visibility Improvement Modeling. 68

1. Wyoming failed to model two types of visibility improvements required by the CAA and the Haze Rule. 69

a. Wyoming failed to model visibility improvement from the installation of NO_X controls alone. 69

b. Wyoming failed to model visibility improvement achievable through SNCR. 71

2. EPA reasonably disapproved Wyoming's baseline and post-control emission rates. 74

a. Wyoming's baseline emissions were unrealistic and prevented apples-to-apples comparisons. 75

b. Wyoming's post-control emission rate underestimated the effectiveness of SCR. 76

3. EPA's use of the CALPUFF Model is reasonable. 80

C. EPA Reasonably Found Wyoming's BART Determination for Wyodak Unreliable Due to Errors in Calculating Costs of Compliance. 85

1. Wyoming's cost calculations underestimated the effectiveness of SCR and relied on unreasonable baseline emissions. 86

2. Wyoming's cost calculations were inflated and unreliable due to the inclusion of unexplained and atypical costs, as well as overestimated capital costs. 87

a. Wyoming irrationally included allowances for funds used during construction and owner's costs in its cost calculations. 88

b. Wyoming overestimated capital costs. 89

D. Under These Circumstances, Wyoming Could Not Reasonably Weigh the BART Factors, and EPA's Consideration of the Factors Was Reasonable. 91

E. EPA Was Not Required to Approve Wyoming's Determination for Wyodak Simply Because It Met the 2005 Presumptive Emission Limits. 94

1. The CAA and the Haze Rule require a five-factor BART analysis regardless of the presumptive limits. 95

2. The regulation is clear that the presumptive limits are a floor for BART determinations. 96

a. The plain language of the CAA and the regulation shows that the presumptive limits do not substitute for a five-factor BART analysis. 96

b. The purpose, structure, and regulatory history of the BART Guidelines support EPA's reading of the regulation. 98

c. Case law supports EPA's reading of the regulation. 104

3. If the meaning of the regulatory presumptions is ambiguous, the *Kisor* factors support deference to EPA's interpretation. 106

III. EPA's FIP Addressing Wyoming's Deficiencies for Wyodak Is Reasonable. 109

A. EPA Considered and Consistently Weighed the Five Statutory Factors in Determining BART for Wyodak. 110

1. EPA considered energy and non-air quality environmental impacts of SCR. 111

2. EPA considered existing control technology. 114

3. EPA reasonably gave significant weight to the costs of compliance and visibility improvement. 119

B. EPA's BART Determination was Consistent with EPA's Own Findings. 122

IV. EPA Reasonably Approved Wyoming's BART Determinations for Naughton Units 1 and 2. 125

A. EPA appropriately considered all five factors in concluding that an emission limit consistent with Combustion Controls is BART for Naughton Units 1 and 2. 126

1. EPA considered the visibility factor. 131

2. EPA appropriately considered incremental costs. 133

B. EPA did not apply a retrofit factor to the cost estimates for SCR. 141

CONCLUSION 145

STATEMENT REGARDING ORAL ARGUMENT 146

CERTIFICATE OF COMPLIANCE.....147

CERTIFICATE OF DIGITAL SUBMISSION 148

CERTIFICATE OF SERVICE 149

FEDERAL RULE OF APPELLATE PROCEDURE 28(f)
ADDENDUM .....Add. i

TABLE OF AUTHORITIES

Cases

Alaska Dep't of Env't Conservation v. EPA,
540 U.S. 461 (2004) 40, 41, 43, 53, 54, 61

Am. Corn Growers Ass'n v. EPA,
291 F.3d 1 (D.C. Cir. 2002) 139

Appalachian Power Co. v. EPA,
249 F.3d 1032 (D.C. Cir. 2001) 84

Arizona ex rel Darwin v. EPA,
815 F.3d 519 (9th Cir. 2016) 43, 47, 50, 55, 58, 65,
..... 69, 87, 88, 104, 120, 127, 134

Arkansas v. Oklahoma,
503 U.S. 91 (1992) 45

Arlington v. FCC,
569 U.S. 290 (2013) 106

ATK Launch Sys. Inc., v. EPA,
651 F.3d 1194 (10th Cir. 2011) 63

Bowen Transp., Inc. v. Ark.-Best Freight Sys., Inc.,
419 U.S. 281 (1974) 41

Chem. Mfrs. Ass'n v. EPA,
28 F.3d 1259 (D.C. Cir. 1994) 85

Chevron U.S.A., Inc. v. EPA,
658 F.2d 271 (5th Cir. 1981) 4

Chevron, U.S.A., Inc. v. NRDC, Inc.,
467 U.S. 837 (1984) 44

Columbia Falls Aluminum Co. v. EPA,
139 F.3d 914 (D.C. Cir. 1998) 76

Env't Def. v. Duke Energy Corp.,
549 U.S. 561 (2007) 64

Entergy Corp. v. Riverkeeper, Inc.,
556 U.S. 208 (2009) 127

Gen. Chem. Corp. v. United States,
817 F.2d 844 (D.C. Cir. 1987) 84

Int'l Fabricare Inst. v. EPA,
972 F.2d 384 (D.C. Cir. 1992) 85

Kisor v. Wilkie,
139 S. Ct. 2400 (2019) 45, 64, 106

Luminant Generation Co. LLC v. EPA,
714 F.3d 841 (5th Cir. 2013) 42

Morgan v. Sec'y of Housing & Urban Dev.,
985 F.2d 1451 (10th Cir. 1993) 45

Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.,
463 U.S. 29 (1983) 41

Mountain States Legal Found. v. Costle,
630 F.2d 754 (10th Cir. 1980) 7

Nat'l Parks Conservation Ass'n v. EPA,
803 F.3d 151 (3d Cir. 2015) 139, 140

Nat'l Parks Conservation Ass'n v. EPA,
788 F.3d 1134 (9th Cir. 2015) 82

Nebraska v. EPA,
812 F.3d 662 (8th Cir. 2016) 48

North Dakota v. EPA,
730 F.3d 750 (8th Cir. 2013) 7, 42, 47, 48, 53, 55, 117, 118

Oklahoma v. EPA,
723 F.3d 1201 (10th Cir. 2013) ..... 7, 8, 10, 37, 40, 41, 43, 45,46, ... 47, 48, 49, 50, 52, 55, 88, 89, 90, 109, 144

San Juan Citizens All. v. Stiles,
654 F.3d 1038 (10th Cir. 2011) 45

San Luis & Delta-Mendota Water Auth. v. Jewell,
747 F.3d 581 (9th Cir. 2014) 84

Sierra Club v. EPA,
939 F.3d 649 (5th Cir. 2019) 48, 83

Sinclair Wyo. Refin. Co. v. EPA,
887 F.3d 986 (10th Cir. 2017) 44

Skidmore v. Swift & Co.,
323 U.S. 134 (1944).....44

Small Refiner Lead Phase-Down Task Force v. EPA,
705 F.2d 506 (D.C. Cir. 1983).....40

Suncor Energy (U.S.A.), Inc. v. EPA,
50 F.4th 1339 (10th Cir. 2022) 45, 106

Texas v. EPA,
690 F.3d 670 (5th Cir. 2012) 48

U.S. Magnesium, LLC v. EPA,
690 F.3d 1157 (10th Cir. 2012) 7

United States v. Salazar,
987 F.3d 1248 (10th Cir. 2021) 51

WildEarth Guardians v. EPA,
759 F.3d 1196 (10th Cir. 2014) 41

WildEarth Guardians v. EPA,
770 F.3d 919 (10th Cir. 2014) 40, 45, 63, 84, 105, 108, 122

Statutes

5 U.S.C. § 551 xviii

5 U.S.C. § 706(2)(A) 40

42 U.S.C. §§ 7410-7671q xviii

42 U.S.C. § 7410(a)(2) 7

42 U.S.C. § 7410(a)(2)(A) 5

42 U.S.C. § 7410(a)(2)(J) 46, 49

42 U.S.C. § 7410(c) 8, 52, 109

42 U.S.C. § 7410(k)(3) 8, 55, 64, 65

42 U.S.C. § 7410(*l*) 8, 46, 49

42 U.S.C. § 7413(a)(5) 43

42 U.S.C. § 7472 4

42 U.S.C. § 7477 43

42 U.S.C. § 7491 49

42 U.S.C. § 7491(a)(1) 5, 15

42 U.S.C. § 7491(a)(3) 59

42 U.S.C. § 7491(a)(4) 5

42 U.S.C. § 7491(b) 46, 97

42 U.S.C. § 7491(b)(1) 10, 51, 59

42 U.S.C. § 7491(b)(2) 5, 7, 10, 15, 49, 59, 61, 126

42 U.S.C. § 7491(b)(2)(A) 6, 47, 54

42 U.S.C. § 7491(b)(2)(B) 15

42 U.S.C. § 7491(g)(1) 15

42 U.S.C. § 7491(g)(2) 54

42 U.S.C. § 7491(g)(6) 5

42 U.S.C. § 7491(g)(7) 6

42 U.S.C. § 7492 42

42 U.S.C. § 7492(e)(2) 5, 7

42 U.S.C. § 7607(b) 63, 80

42 U.S.C. § 7607(b)(1) 3, 63

42 U.S.C. § 7607(d)(1)(B) 40

42 U.S.C. § 7607(d)(9)(A) 40

Code of Federal Regulations

40 C.F.R. §§ 51.300-51.309 xviii

40 C.F.R. § 51.300(a) 9

40 C.F.R. § 51.300(b) 8

40 C.F.R. § 51.301 ..... 6, 7, 9, 70

40 C.F.R. § 51.308(d)(1)(i)(A) 15

40 C.F.R. § 51.308(d)(1)(i)(B) 16

40 C.F.R. § 51.308(d)(1)(ii) 15, 16

40 C.F.R. § 51.308(e).....6, 9

40 C.F.R. § 51.308(e)(1)..... 9, 59, 107, 108

40 C.F.R. § 51.308(e)(1)(ii).....70

40 C.F.R. § 51.308(e)(1)(ii)(A) 7, 54, 62, 68, 71, 72, 73, 95, 99, 110, 111, 127

40 C.F.R. § 51.308(e)(1)(ii)(B)..... 10, 97

40 C.F.R. § 51.308(e)(2)..... 9, 107, 108

40 C.F.R. § 51.308(e)(4).....107

40 C.F.R. § 51.308(f).....16

40 C.F.R. § 51.308(g) 16

40 C.F.R. § 51.309(a).....108

40 C.F.R. § 51.309(d)(4)(i).....108

40 C.F.R. § 51.309(d)(4)(vii).....70

40 C.F.R. pt. 51 App. Y 8, 10, 100, 103

40 C.F.R. pt. 51 App. Y, I.E.2 96

40 C.F.R. pt. 51 App. Y, I.F.1.....59

40 C.F.R. pt. 51 App. Y, I.H..... 60, 62, 97

40 C.F.R. pt. 51 App. Y, IV.C. 97

40 C.F.R. pt. 51 App. Y, IV.D..... 11, 73, 98

40 C.F.R. pt. 51 App. Y, IV.D.1.6.....115

40 C.F.R. pt. 51 App. Y, IV.D.1.9.....97

40 C.F.R. pt. 51 App. Y, IV.D.3 79

40 C.F.R. pt. 51 App. Y, IV.D.4 ..... 11, 67

40 C.F.R. pt. 51 App. Y, IV.D.4.a 11

40 C.F.R. pt. 51 App. Y, IV.D.4.a.1 11

40 C.F.R. pt. 51 App. Y, IV.D.4.a.2 ..... 62, 94

40 C.F.R. pt. 51 App. Y, IV.D.4.a.4-5 ..... 103, 104

40 C.F.R. pt. 51 App. Y, IV.D.4.a.5 ..... 12, 62, 66, 143

40 C.F.R. pt. 51 App. Y, IV.D.4.b-c 12

40 C.F.R. pt. 51 App. Y, IV.D.4.b 12

40 C.F.R. pt. 51 App. Y, IV.D.4.c 12

40 C.F.R. pt. 51 App. Y, IV.D.4.d 86

40 C.F.R. pt. 51 App. Y, IV.D.4.d.1 ..... 76, 116

40 C.F.R. pt. 51 App. Y, IV.D.4.e.1 ..... 13, 111, 137, 138

40 C.F.R. pt. 51 App. Y, IV.D.4.e.5 ..... 13, 130

40 C.F.R. pt. 51 App. Y, IV.D.4.f 62

40 C.F.R. pt. 51 App. Y, IV.D.4.g 12, 13, 93

40 C.F.R. pt. 51 App. Y, IV.D.4.h.3 112

40 C.F.R. pt. 51 App. Y, IV.D.5 ..... 13, 77, 80, 81

40 C.F.R. pt. 51 App. Y, IV.E 98, 100

40 C.F.R. pt. 51 App. Y, IV.E.2 ..... 14, 111

40 C.F.R. pt. 51 App. Y, IV.E.3 113

40 C.F.R. pt. 51 App. Y, IV.E.4-5 14

40 C.F.R. pt. 51 App. Y, IV.E.5 ..... 96, 98

40 C.F.R. pt. 51 App. Y, V 78

40 C.F.R. § 52.2636 119

State Regulations

WAQSR Ch. 6 § 9(c)(ii) 60

WAQSR Ch. 6 § 9(e)(i)(E) 60

Federal Registers

64 Fed. Reg. 35714 (July 1, 1999)..... 8, 14, 127

69 Fed. Reg. 25184 (May 5, 2004) 72, 95, 101, 102, 103

70 Fed. Reg. 39104 (July 6, 2005)..... 8, 10, 13, 14, 15, 47, 59, 66, 67, ... 73, 78, 80, 84,95, 96, 97, 100, 101, 103, 104, 105, 106, 119, 139, 140

71 Fed. Reg. 60612 (Oct. 13, 2006).....108

75 Fed. Reg. 68989 (Nov. 10, 2010) 42

76 Fed. Reg. 38997 (July 5, 2011)..... 92, 93

77 Fed. Reg. 14604 (Mar. 12, 2012).....107

77 Fed. Reg. 17334 (Mar. 26, 2012).....56

77 Fed. Reg. 20894 (Apr. 6, 2012) 107

77 Fed. Reg. 24845 (Apr. 26, 2012) 56

77 Fed. Reg. 33022 (June 4, 2012) 5, 10, 13, 16, 19, 22, 23, 24, 73, 95, 123

77 Fed. Reg. 51915 (Aug. 28, 2012) 56

77 Fed. Reg. 57864 (Sept. 18, 2012) 111

77 Fed. Reg. 72512 (Dec. 5, 2012) 104, 117

77 Fed. Reg. 73926 (Dec. 12, 2012) 108

77 Fed. Reg. 74355 (Dec. 14, 2012) 106

78 Fed. Reg. 4341 (Jan. 22, 2013) 106

78 Fed. Reg. 34738 (June 10, 2013) ..... 24, 25, 26, 27, 28, 30, 57, 69, 70, 71, ... 72, 73, 74, 75, 76, 78, 81, 86, 88, 89, 91, ... 95, 106, 110, 111, 113, 123, 128, 129, 131

78 Fed. Reg. 53250 (Aug. 29, 2013) 56

79 Fed. Reg. 5032 (Jan. 30, 2014) ..... 3, 17,21, 29, 30, 31, 32, 34, 35, ... 52, 55, 58, 61, 66, 69, 70, 71, 72, 74, 75, 76, 77, ... 78, 79, 81, 82, 84, 86, 89, 90, 92, 93, 95, 96, 99, ...102, 110, 111, 113, 115, 117, 118, 119, 120, 121, ...122, 123, 124, 125, 126, 128, 129, 131, 132, 133, ... 134, 135, 138, 141, 142, 143, 144

79 Fed. Reg. 33438 (June 11, 2014) 113

82 Fed. Reg. 3078 (Jan. 10, 2017) 8, 16

Legislative Materials

123 Cong. Rec. 27,070 (Statement of Rep. Paul Rogers).....52

123 Cong. Rec. 26,854 (1977) 52

H.R. Conf. Rep. No. 95-564, at 155 (1977).....52

Other Authorities

EPA, *EPA Air Pollution Control Cost Manual* (6th Ed. January 2002) https://www.epa.gov/sites/default/files/2020-07/documents/c_allchs.pdf 12

EPA, *EPA Air Pollution Control Cost Manual,* Cost Reports and Guidance for Air Pollution Regulations (last updated Sept. 8, 2022), https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution 12

EPA, *Clean Air Markets: Data and Tools* (last updated Jan. 6, 2023), https://www.epa.gov/airmarkets/data-and-tools 77

PacifiCorp, *2021 Integrated Resource Plan Update* 12 (Mar. 31. 2021), https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/integrated-resource-plan/2021_IRP_Update.pdf 18

Wyoming Regional Haze Second Planning Period SIP Completeness Letter (Aug. 23, 2022), https://www.regulations.gov/document/EPA-HQ-OAR-2022-0320-0011 16

PRIOR OR RELATED APPEALS

The following three petitions for review challenge the same EPA final action and were therefore consolidated for briefing and argument:

- *Wyoming v. EPA*, No. 14-9529;
- *Powder River Basin Resource Council, et al. v. EPA*, No. 14-9530; and
- *PacifiCorp v. EPA*, No. 14-9534.

Additionally, *Basin Electric Cooperative v. EPA*, No. 14-9533, previously consolidated with this case, has been settled. Part of the final action at issue—EPA's approval of Wyoming's participation in a regional backstop trading program to address emissions of sulfur dioxide ("SO_2")—was upheld by this Court in *WildEarth Guardians v. EPA*, 770 F.3d 919 (10th Cir. 2014).

GLOSSARY

AFUDC	Allowance for Funds Used During Construction
APA	Administrative Procedure Act, 5 U.S.C. §§ 551 *et seq.*
BACT	Best Available Control Technology
BART	Best Available Retrofit Technology
BART Guidelines	40 C.F.R. pt. 51, App. Y. Also referred to as "Appendix Y" or "Guidelines"
CAA	Clean Air Act, 42 U.S.C. §§ 7410-7671q. Also referred to as the "Act."
EPA	U.S. Environmental Protection Agency
FIP	Federal Implementation Plan
Haze Rule	Regional Haze Rule, 40 C.F.R. §§ 51.300-51.309
IPM	Integrated Planning Model
lb/MMBtu	Pounds per million British thermal units
Manual	Control Cost Manual
NO_X	Nitrogen Oxide
SCR	Selective Catalytic Reduction
SIP	State Implementation Plan
SNCR	Selective Non-Catalytic Reduction
SO_2	Sulfur Dioxide
Unit	Electric Generating Unit

INTRODUCTION

At issue in this case is EPA's 2014 action to address haze pollution in Western national parks and scenic areas, including Yellowstone and Grand Teton National Parks. In 1977, Congress amended the Clean Air Act ("CAA" or the "Act") with the goal of remedying visibility-impairing pollution and restoring visibility to natural conditions in our treasured national parks and scenic areas. In these important federal areas, the visual range has been substantially reduced by air pollution. Haze pollution comes from a variety of sources, including the two coal-fired power plants at issue in this case, and occurs over a wide geographic area.

Congress directed EPA to issue implementing regulations for the CAA's visibility provisions. Through a cooperative-federalism approach, states are required to submit to EPA periodic state implementation plans ("SIPs") addressing regional haze. A state's first regional haze SIP must identify large sources of haze-forming pollutants that are eligible for emission controls, evaluate control technology options, select the best available retrofit technology ("BART") for those sources, and include other measures to make reasonable progress toward Congress's visibility goal. EPA is required to review each SIP and will approve a SIP where it is consistent with the CAA and EPA's implementing regulations. If EPA concludes that it cannot approve a SIP, EPA must disapprove it. EPA must

also issue a federal implementation plan ("FIP") in place of any SIP or part of a SIP that EPA disapproves, unless the state submits and EPA approves a new SIP.

Relevant to the petitions here, Wyoming concluded in its SIP that the least-stringent control option for reducing nitrogen oxide ("NO_X") emissions would be BART for an electric generating unit ("Unit") at PacifiCorp's Wyodak facility, as well as Units 1 and 2 at PacifiCorp's Naughton facility. These facilities are both decades old, and, in the case of Wyodak, PacifiCorp plans to operate the facility for many years to come.

In reviewing Wyoming's SIP, EPA found several flaws in Wyoming's analysis of two factors required by the CAA—visibility impacts and cost. This led EPA to conduct its own analysis of those factors and correct deficiencies in Wyoming's analysis. EPA ultimately disapproved Wyoming's SIP for Wyodak and issued a FIP that required installation of the most stringent control option for that Unit, while EPA approved the SIP for Naughton Units 1 and 2.

In taking these actions, EPA acted reasonably within its CAA and regulatory authority. EPA reasonably concluded that it could not approve part of Wyoming's SIP because Wyoming had failed to reasonably analyze two of the five statutory factors, rendering Wyoming's BART determination for Wyodak inconsistent with the CAA and implementing regulations. EPA then issued a FIP, which EPA reasonably determined complied with the CAA and its regulations. EPA also acted

reasonably and pursuant to its CAA authority when, after correcting deficiencies in Wyoming's analysis, EPA approved Wyoming's BART determinations for Naughton Units 1 and 2.

STATEMENT OF JURISDICTION

The petitions for review challenge an EPA action entitled, "Approval, Disapproval and Promulgation of Implementation Plans; State of Wyoming; Regional Haze State Implementation Plan; Federal Implementation Plan for Regional Haze," 79 Fed. Reg. 5032 (Jan. 30, 2014) ("Final Rule"). This Court has jurisdiction to review the Final Rule under 42 U.S.C. § 7607(b)(1). EPA agrees that all the petitions were timely filed.

STATEMENT OF THE ISSUES

1. Whether EPA acted within its statutory authority when it reviewed Wyoming's BART determinations for compliance with the CAA and EPA's regulations.
2. Whether EPA's disapproval of Wyoming's NO_X" BART determination for Wyodak was reasonable when EPA found that Wyoming's determination did not comply with the CAA and regulations.
3. Whether EPA's promulgation of a FIP and its BART determination for Wyodak was reasonable when EPA concluded that it was consistent with the CAA and regulations, and supported by the administrative record.

4. Whether EPA's approval of Wyoming's NO_X BART determinations for Naughton Units 1 and 2 was reasonable when, after correcting deficiencies in Wyoming's analysis, EPA concluded that Wyoming's ultimate determinations were reasonable under the CAA and regulations.

STATEMENT OF THE CASE

The petitions for review challenge a final EPA action to approve and disapprove portions of Wyoming's regional haze SIP and promulgate a FIP to address deficiencies in Wyoming's SIP under the part of the CAA designed to remedy visibility impairment in national parks and wilderness areas.

A. Statutory and Regulatory Background

1. The Clean Air Act visibility provisions

Congress enacted 42 U.S.C. § 7491, entitled "Visibility protection for Federal class I areas," in 1977 in response to "a growing awareness that visibility was rapidly deteriorating in many places, such as wilderness areas and national parks, set aside for special protection in their natural states." *Chevron, U.S.A., Inc. v. EPA*, 658 F.2d 271, 272 (5th Cir. 1981). *See* 42 U.S.C. § 7491. "Federal class I areas" include national parks, national wilderness areas, and national memorial parks. 42 U.S.C. § 7472. Congress declared as a national goal "the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade air

pollution." *Id.* § 7491(a)(1). "Impairment of visibility" means "reduction in visual range and atmospheric discoloration." *Id.* § 7491(g)(6). Regional haze is visibility impairment produced by a number of sources and activities in a broad geographic area through emissions of fine particles (e.g., nitrates, sulfates) and their precursors (e.g., NO_X, SO_2). Fine particles impair visibility by scattering and absorbing light. *See* 77 Fed. Reg. 33022, 33024/3 (June 4, 2012) ("2012 Proposed Rule").

Congress required EPA to promulgate regulations to assure "reasonable progress" toward meeting the national goal and compliance with § 7491. 42 U.S.C. § 7491(a)(4). The regulations require states to submit regional haze SIPs if they have Class I areas within their borders or if their emissions "may reasonably be anticipated to cause or contribute to any impairment of visibility" in a Class I area outside their borders. *Id.* § 7491(b)(2); *see id.* § 7492(e)(2). All SIPs must include "enforceable emission limitations and other control measures, means, or techniques . . . as well as schedules and timetables for compliance, as may be necessary or appropriate" to meet the applicable requirements of the Act. 42 U.S.C § 7410(a)(2)(A). Regional haze SIPs must include emission limits, compliance schedules, and other measures "as may be necessary to make reasonable progress toward meeting the national goal." *Id.* § 7491(b)(2).

a. BART requirement

The Act specifically requires certain larger, older major stationary sources that emit "any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility" to "procure, install, and operate, as expeditiously as practicable (and maintain thereafter) the best available retrofit technology," or "BART." *Id.* § 7491(b)(2)(A); 40 C.F.R. § 51.308(e). The Act defines "major stationary sources" as certain types of stationary sources with the potential to emit 250 tons or more of any pollutant. 42 U.S.C. § 7491(g)(7). For the purposes of the BART requirement, eligible sources are limited to major stationary sources built between 1962 and 1977. *See id.* § 7491(b)(2)(A). BART is "an emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each pollutant which is emitted by an existing stationary facility." 40 C.F.R. § 51.301. The BART emission limit is established on a case-by-case basis, after evaluating emission limits associated with available control technologies through consideration of five statutory factors: (1) the costs of compliance; (2) the energy and non-air quality environmental impacts of compliance; (3) any existing pollution controls in use at the source; (4) the remaining useful life of the source; and (5) the degree of visibility improvement which may be reasonably anticipated to result from the use

of such technologies. 42 U.S.C. § 7491(g)(2); 40 C.F.R. §§ 51.301, 51.308(e)(1)(ii)(A).

b. States submit SIPs with EPA oversight

"The Clean Air Act 'uses a cooperative-federalism approach to regulate air quality.'" *Oklahoma v. EPA*, 723 F.3d 1201, 1204 (10th Cir. 2013) (quoting *U.S. Magnesium, LLC v. EPA*, 690 F.3d 1157, 1159 (10th Cir. 2012)). States have the initial responsibility to develop regional haze SIPs to comply with the CAA's visibility provisions. *See* 42 U.S.C. § 7491(b)(2) (specifying requirements for implementation plans); *id.* § 7491(b)(2)(A) (stating that BART-eligible sources must install BART "as determined by the State" or EPA in the case of a FIP); *see also North Dakota v. EPA*, 730 F.3d 750, 760-61 (8th Cir. 2013) (stating that "the CAA grants states the primary role of determining the appropriate pollution controls within their borders"). "States, however, exercise this authority with federal oversight." *Oklahoma*, 723 F.3d at 1204; *see also Mountain States Legal Found. v. Costle*, 630 F.2d 754, 757 (10th Cir. 1980) ("Congress clearly intended the final decision to be that of the EPA").

Each SIP must be submitted to EPA for approval. 42 U.S.C. § 7410(a)(2). EPA must review a state's regional haze SIP under 42 U.S.C. § 7410 for compliance with the requirements of the Act, including § 7491 and § 7492, and the implementing regulations, *see* 42 U.S.C. § 7492(e)(2). If EPA determines that a

state's SIP meets the requirements of the Act, EPA must approve the SIP. 42 U.S.C. § 7410(k)(3). Conversely, EPA may not approve a SIP if it would "interfere with any applicable requirement" of the Act. *Id.* § 7410(*l*). Within two years of such a disapproval, EPA must promulgate a FIP to implement and enforce the applicable regional haze requirements in the state unless the state corrects the deficiency and EPA approves the revised SIP before promulgating a FIP. *Id.* § 7410(c); *see Oklahoma*, 723 F.3d at 1204.

2. The Regional Haze Rule

Pursuant to Congress's direction in the CAA's visibility provisions, EPA promulgated the "Regional Haze Regulations" in 1999 ("Haze Rule"), 64 Fed. Reg. 35714 (July 1, 1999), and subsequently revised the Rule several times, including in 2005. *See, e.g.*, 70 Fed. Reg. 39104, 39156-72 (July 6, 2005).[1] The 2005 Rule revisions added the BART Guidelines. *See id.*; *see also* 40 C.F.R. pt. 51, App. Y (codifying the BART Guidelines). The Haze Rule is applicable to Wyoming, 40 C.F.R. § 51.300(b), and requires states to "develop programs to assure reasonable progress toward meeting the national goal of preventing any future, and remedying any existing, impairment of visibility in mandatory Class I

[1] After promulgating the Final Rule under review, EPA revised the Haze Rule in 2017, in ways not relevant to this case. *See* 82 Fed. Reg. 3078 (Jan. 10, 2017).

Federal areas which impairment results from manmade air pollution." *Id.* § 51.300(a).

a. The Haze Rule's BART provisions

The Haze Rule requires states to determine which "BART-eligible" sources are "subject to BART" and how those sources will be controlled in accordance with statutory and regulatory requirements, including consideration of the five statutory BART factors. *See supra* Part A.1.a. Generally, states analyze individual sources and submit a SIP "containing emission limitations representing BART and schedules for compliance with BART for each BART-eligible source that may reasonably be anticipated to cause or contribute to any impairment of visibility in any mandatory Class I Federal area." 40 C.F.R. § 51.308(e).[2] A BART determination involves three steps: (a) determining which sources meet the definition of "BART-eligible source," as set forth in 40 C.F.R. § 51.301; (b) determining which BART-eligible sources emit "any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility" in a Class I area, making those sources "subject to BART"; and (c) for each source subject to BART, identifying the appropriate type and level of control for reducing emissions. *See* 40 C.F.R. § 51.308(e)(1). Only Step (c) is at issue in this case.

[2] Alternatively, states may develop an alternative program demonstrated to be better than BART. 40 C.F.R. § 51.308(e)(2).

The BART Guidelines: The CAA directs that EPA regulations provide "guidelines" to states "on appropriate techniques and methods for implementing" the Act's visibility provisions. 42 U.S.C. § 7491(b)(1). Accordingly, the 2005 revisions to the Haze Rule include the "BART Guidelines" (also known as "Appendix Y"). *See* 70 Fed. Reg. at 39105, 39108, 39156-72 (codified at 40 C.F.R. pt. 51, App. Y). The BART Guidelines assist states in determining which sources are subject to BART and in making BART determinations in light of the statutory factors. *Id.* The CAA and EPA regulations make the BART Guidelines mandatory for BART-eligible power plants with a total generating capacity exceeding 750 megawatts. 42 U.S.C. § 7491(b)(1), (2) (last sentence); 40 C.F.R. § 51.308(e)(1)(ii)(B); *see also Oklahoma*, 723 F.3d at 1207-10. Although EPA chose not to mandate use of the BART Guidelines for smaller power plants (such as those at issue in this case),[3] EPA's rule establishing the Guidelines encouraged states to follow the Guidelines for all sources, and to view them as helpful guidance. 70 Fed. Reg. at 39108. In other words, the Guidelines describe a process for conducting a BART analysis that EPA considers reasonable and compliant with statutory and regulatory requirements.

[3] Wyodak's one Unit has a total net generating capacity of 335 megawatts. *See* 77 Fed. Reg. at 33038. Across its three Units, Naughton has a total net generating capacity of 700 megawatts. *Id*. at 33036.

The Five-Step BART Analysis: The BART Guidelines establish a step-by-step process for identifying the appropriate type and level of control under Step (c) of the source-specific BART determination. They are: (Step 1) identify all available retrofit control technologies; (Step 2) eliminate technically infeasible options; (Step 3) evaluate control effectiveness of remaining control technologies; (Step 4) evaluate impacts and document the results; and (Step 5) evaluate the visibility impacts. 40 C.F.R. pt. 51, App. Y, IV.D. The Guidelines provide detailed instructions on how each of these steps should be performed, documented, and explained. *See id.* Steps 4 and 5 are of particular importance here.

Step 4: Costs and Other Impacts: In Step 4, states are instructed to perform impact analyses of the "costs of compliance," "energy impacts," "non-air quality environmental impacts," and the "remaining useful life" of the source. *Id.* at IV.D.4. The "costs of compliance" factor is a relative determination—a control will be cost effective if the cost is similar to costs borne by other similar sources. *See* 40 C.F.R. pt. 51, App. Y, IV.D.4.a.1 (emphasizing the need for accurate documentation to compare "costs of the same controls applied to similar sources"). To determine the "costs of compliance," the BART Guidelines instruct states to: "(1) Identify the emissions units being controlled, (2) Identify design parameters for emission controls, and (3) Develop cost estimates based upon those design parameters." *Id.* at IV.D.4.a. To "maintain and improve consistency," states are

instructed to develop capital and annual cost estimates based on the EPA Control Cost Manual, "where possible" and to "include documentation for any additional information . . . used for the cost calculations." *Id.* at IV.D.4.a.5 & n.15. EPA's Control Cost Manual is a publicly available guidance document intended to aid users in developing accurate and consistent costs for air pollution control devices.[4] Regarding capital costs, the BART Guidelines warn states that "large capital costs for a control option alone would not preclude selection of a control measure if large emissions reductions are projected." 40 C.F.R. pt. 51, App. Y, IV.D.4.g.

For annual costs, states are instructed to determine the "cost effectiveness" of the control options. *Id.* at IV.D.4.b-c. Effectiveness "is measured in terms of tons of pollutant emissions removed, and 'cost' is measured in terms of annualized control costs." *Id.* at IV.D.4.b. The BART Guidelines recommend that states assess both average cost effectiveness and incremental cost effectiveness. *Id.* Average cost effectiveness is "the total annualized costs of control divided by annual emissions reductions." *Id.* at IV.D.4.c. Incremental cost effectiveness "compares

[4] EPA is currently in the process of updating the Control Cost Manual. *See* EPA, *EPA Air Pollution Control Cost Manual*, Cost Reports and Guidance for Air Pollution Regulations (last updated Sept. 8, 2022), https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution. Where we reference the Manual, we refer to the Sixth Edition, which is the version that was in effect at the time of the Final Rule. EPA, *EPA Air Pollution Control Cost Manual* (6th Ed. Jan. 2002), https://www.epa.gov/sites/default/files/2020-07/documents/c_allchs.pdf (hereinafter "Control Cost Manual").

the costs and performance level of a control option to those of the next most stringent option." *Id.* at IV.D.4.e.1. Incremental cost is calculated as "the difference in total annual costs between [a] control option and the next most stringent option, divided by the difference in emissions, after controls have been applied, between those two control options." 2012 Proposed Rule, 77 Fed. Reg. at 33032 n.17. Even if the average cost for each of two control options is reasonable, where a control option achieves slightly higher emission reductions than another but with large incremental cost, it may be inappropriate to choose the more stringent control. 40 C.F.R. pt. 51, App. Y, IV.D.4.e.5. Where capital costs are high, but large emission reductions are projected, the BART Guidelines state that "low or reasonable cost effectiveness numbers" may validate a control. *Id.* at IV.D.4.g.

Step 5: Visibility: In Step 5, states are instructed to "conduct a visibility improvement determination" using "CALPUFF, or other appropriate dispersion model" to determine the visibility improvement anticipated by the installation of the control options under consideration. 40 C.F.R. pt. 51, App. Y, IV.D.5. CALPUFF is an EPA-approved air dispersion model that simulates the effects of time- and space-varying meteorological conditions on pollution transport, transformation, and removal. *See* 70 Fed. Reg. at 39122/3. The CALPUFF assessment is specific to each source, taking into account the individual source's

emission characteristics, location, and the particular meteorological, topographical, and climatological conditions of the area in which the source is located. *See id.*

Visibility improvement, measured in deciviews, "must be weighed among the five factors" and states are "free to determine the weight and significance to be assigned to each factor." *Id.* at 39130. The deciview is "an atmospheric haze index that expresses changes in visibility," and because each unit change "represents a common change in perception, the deciview scale is like the decibel scale for sound." 64 Fed. Reg. at 35725/2.

At the end of the five steps, the BART Guidelines instruct states to select the "best" control option, and "provide a justification for adopting the technology [selected] as the 'best' level of control, including an explanation of the CAA factors that led [the state] to choose that option over other control levels." *See* 40 C.F.R. pt. 51, App. Y, IV.E.2.

Presumptive Limits: In the final pages of the BART Guidelines, EPA provided specific guidance on the levels of control likely to be achievable at certain categories of large oil- and coal-fired power plants. *Id.* at IV.E.4-5. These levels, known as the "presumptive limits," identify specific emission limits, percent reduction levels, and associated technologies that EPA calculated to be cost-effective means of reducing visibility impacts at the time the BART Guidelines were promulgated in 2005. *See* 70 Fed. Reg. at 39131. Under the

Guidelines, a state must, at a minimum, "require owners and operators of greater than 750 [megawatt] power plants to meet these BART emission limits," unless the state "can demonstrate that an alternative determination is justified based on a consideration of the five statutory factors." *Id.*

b. Reasonable Progress requirements

In addition to the BART requirement, the CAA's visibility provisions also require that states' regional haze SIPs contain a "long-term (ten to fifteen years) strategy for making reasonable progress toward meeting the national goal." 42 U.S.C. § 7491(b)(2)(B). The CAA does not mandate a deadline for achieving the national goal. *See id.* § 7491(a)(1). Nor does the CAA mandate any specific rate of progress as "reasonable progress." *See id.* § 7491(b)(2). However, in the Haze Rule, EPA established a requirement for measuring reasonable progress towards attainment of the national goal by the year 2064. *See* 40 C.F.R. § 51.308(d)(1)(ii).

Specifically, in setting reasonable progress goals, states must take into account four statutory factors: "the costs of compliance, the time necessary for compliance, and the energy and nonair quality environmental impacts of compliance, and the remaining useful life of any existing source subject to such requirement." 42 U.S.C. § 7491(g)(1); *see also* 40 C.F.R. § 51.308(d)(1)(i)(A). States are also required to analyze and "determine the rate of progress needed to attain natural visibility conditions by the year 2064," 40 C.F.R

§ 51.308(d)(1)(i)(B), which is known as the "uniform rate of progress." If a state "establishes a reasonable progress goal that provides for a slower rate of improvement in visibility" than the uniform rate of progress, the Haze Rule requires that the state demonstrate, based on the four factors, that the uniform rate of progress "is not reasonable; and that the progress goal adopted by the State is reasonable." *Id.* § 51.308(d)(1)(ii).

Unlike BART determinations, which are one-time determinations, states are required to submit an update to their reasonable progress goals and long-term strategies in the form of SIP revisions on the last day in July in 2021, 2028, and at ten-year intervals thereafter. *Id.* § 51.308(f). In addition, each state must submit periodic reports to EPA, beginning five years after the submission of the initial regional haze SIP, evaluating the state's progress towards meeting the reasonable progress goals. *Id.* § 51.308(g). The time period at issue in this case is the first planning period, which ended on July 31, 2018. *See* 2012 Proposed Rule, 77 Fed. Reg. at 33049/3.[5]

---

[5] BART is a one-time determination in first planning period requirements. *See* 82 Fed. Reg. at 3083. EPA received Wyoming's Regional Haze SIP for the second planning period on August 10, 2022. *See* Wyoming Regional Haze Second Planning Period SIP Completeness Letter, https://www.regulations.gov/document/EPA-HQ-OAR-2022-0320-0011. EPA is currently reviewing Wyoming's second planning period SIP for compliance with the CAA and implementing regulations, but notes that it does not contain any new control requirements for Wyodak or Naughton.

B. Factual Background

1. Wyoming's Regional Haze SIP

Wyoming has seven Class I areas within the State, including Grand Teton and Yellowstone National Parks. *See* JA Vol. II, JA000302-29 (Wyoming Regional Haze SIP).[6] Wyoming submitted its initial regional haze SIP to EPA on January 12, 2011. *See* Final Rule, 79 Fed. Reg. at 5032/2. In relevant part, the SIP identified facilities with BART-eligible Units, *see* JA Vol. II, JA000393; identified such Units that cause or contribute to visibility impairment and are therefore "subject to BART," *id.* JA000394-95; and made BART determinations for those Units to control NO_X emissions.

Wyoming identified thirteen Units at five power plants as subject to BART—Jim Bridger (four Units), Dave Johnston (two Units), Laramie River (three Units), Wyodak (one Unit), and Naughton (three Units). *See* JA Vol. II, JA000400-13. Because the BART determinations for Wyodak and Naughton Units 1 and 2 are at issue here, we focus primarily on those two facilities in discussing Wyoming's SIP, EPA's Proposed Rules, and EPA's Final Rule. Wyodak began operating in 1978, while Naughton Units 1 and 2 began operating in 1963 and 1968, respectively. According to PacifiCorp's public disclosure, PacifiCorp plans

[6] The parties' Joint Appendix is cited as "JA" followed by the volume number and the bates-stamped page number.

to operate Wyodak until 2039, while it plans to retire Naughton Units 1 and 2 by 2025.[7]

a. Control Options

As part of its BART analyses, Wyoming considered various control technologies, including two types of combustion controls—low-NO_X burners and overfire air—and two types of post-combustion controls—selective non-catalytic reduction and selective catalytic reduction. *See, e.g.*, JA Vol. V, JA001185-86, Wyo. Analysis for Wyodak. Combustion controls minimize the production of NO_X by controlling how air and fuel (coal) are mixed in the boiler. *Id.* JA001185. Post-combustion controls chemically convert NO_X into inert nitrogen and water vapor. *See id.* JA001186. Selective non-catalytic reduction takes place in the boiler, where a reagent such as ammonia or urea is injected into post-combustion gas. *See* Control Cost Manual, Section 4, Chapter 1 at 1-4. The selective catalytic reduction process also uses a reagent but takes place in a catalyst reaction chamber located along the ductwork exiting the boiler. *Id.* Section 4, Chapter 2 at 2-4. Both combustion controls can be installed together, and combustion controls are often installed with one (but typically not both) of the post-combustion controls.

[7] PacifiCorp, *2021 Integrated Resource Plan Update* 12 (Mar. 31. 2021), https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/integrated-resource-plan/2021_IRP_Update.pdf.

Combining these controls, Wyoming generally identified three control options: (1) a combination of low-NO_X burners and overfire air ("Combustion Controls"); (2) Combustion Controls plus selective non-catalytic reduction ("SNCR"); and (3) Combustion Controls plus selective catalytic reduction ("SCR").[8] For both Wyodak and Naughton, Wyoming concluded that all three of these options were cost effective and technologically feasible. JA Vol. V, JA001186, JA001190, Wyo. Analysis for Wyodak; JA Vol. V, JA001026, JA001032, Wyo. Analysis for Naughton.

Wyoming did not identify any energy or non-air quality environmental impacts or remaining-useful-life issues that would preclude a particular control at either facility. 2012 Proposed Rule, 77 Fed. Reg. at 33055/2-3 (Wyodak), 33036/3 (Naughton); *see* JA Vol. V, JA001188-89 (Wyodak); *Id.* JA001028-29 (Naughton). In making its BART determinations for Wyodak and Naughton Units 1 and 2, Wyoming rejected SNCR and SCR, and set emission limits consistent with Combustion Controls. *See* JA Vol. II, JA000395, JA000407-12.[9] For Naughton

[8] We generally refer to Combustion Controls plus SCR as "SCR" and Combustion Controls plus SNCR as "SNCR," since the post-combustion controls were considered together with Combustion Controls. Where we refer only to SCR or SNCR individually, we specify "SNCR alone" or "SCR alone."

[9] This unit of measurement reflects the number of pounds of emissions per million British thermal units of energy generated.

Unit 3, Wyoming determined that BART should be an emission limit consistent with the installation of SCR. *Id.* JA000408.

b. Wyoming's Evaluation of SCR

Cost effectiveness: For the thirteen Units subject to BART, Wyoming determined that the average cost effectiveness of SCR—which ranged from $2,210 to $4,275/ton of emissions removed[10]—was reasonable for all Units, including Wyodak (which Wyoming considered to be $4,252/ton).[11] With the exception of Dave Johnston Units 3 and 4, Wyoming also considered the incremental cost effectiveness of SCR reasonable for all Units, including Wyodak (which Wyoming considered to be $8,147/ton).

Visibility: In considering the visibility improvement from SCR, Wyoming focused on the additional visibility improvement that would be achieved by SCR alone—not including the improvement achieved by Combustion Controls—summed across all impacted Class I areas. *See, e.g.*, JA Vol. V, JA001215 (describing analysis for Wyodak); *see also id.* JA001211 Tbl.19 (listing impacts for various control scenarios). For the PacifiCorp facilities, including Wyodak and

[10] Although cost-effectiveness values are measured in dollars/ton of emissions removed, for brevity we often omit the full description.

[11] JA Vol. IV, JA000868 (Dave Johnston); *id.* JA000915 (Jim Bridger); JA Vol. III, JA000699 (Laramie River); JA Vol. V, JA001032 (Naughton); *id.* JA001190 (Wyodak).

Naughton, Wyoming modeled visibility improvements from NO_X collectively with visibility improvements from SO_2 and particulate matter. *See, e.g.*, *id.* JA001215. Wyoming did not expressly state what level of improvement it deemed sufficient to support the installation of SCR, but it apparently viewed a cumulative visibility improvement[12] from SCR alone in the range of 0.63 to 1.02 deciviews as sufficient, based on Wyoming's selection of SCR as BART at Naughton Unit 3 and as part of Wyoming's long-term strategy for the Jim Bridger Units.[13] Notably, although the State's calculation for Wyodak of 0.67 deciviews fell within this range, Wyoming did not require SCR for Wyodak. *See* JA Vol. V, JA001215, Wyo. Analysis for Wyodak.

BART Determinations: After calculating costs and visibility improvement, Wyoming required SCR as BART at Naughton Unit 3, but rejected SCR as BART

---

[12] "Cumulative visibility improvement" refers to the total visibility improvement, measured in deciviews, anticipated across Class I areas impacted by a source.

[13] JA Vol. V, JA001065, Wyo. Analysis for Naughton; JA Vol. IV, JA000918, Wyo. Analysis for Jim Bridger.

At Jim Bridger, Wyoming did not choose SCR as BART, but instead required SCR as part of the State's long-term strategy. *See* Final Rule, 79 Fed. Reg. at 5048/1; JA Vol. II, JA000403, JA000469-70, Wyoming Regional Haze SIP. Part of Wyoming's reasoning was that it would be too burdensome for one company, PacifiCorp, to install SCR at multiple Units during the five-year compliance period for BART. *See* JA Vol. II, JA000403. Importantly, Wyoming found that the cost of compliance to install SCR was reasonable and Wyoming estimated visibility benefits ranging from 0.63 to 0.64 deciviews for each of the four Units. JA Vol. IV, JA000915, JA000918, Wyo. Analysis for Jim Bridger.

at all other Units. In selecting SCR at Naughton Unit 3, Wyoming explained that the average and incremental cost effectiveness of SCR were both reasonable and that the cumulative visibility improvement from SCR was "approximately twice" what could be achieved by SCR at Naughton Unit 1 or 2. *See* JA Vol. V, JA001065. For the other Units, Wyoming rejected SCR as BART in part based on high additional capital and annual costs, making no mention of average or incremental cost effectiveness and without explaining the significance of visibility improvement. *See* JA Vol. V, JA001214-15 (Wyodak) (finding that "the cost of compliance for installing SCR on the unit is significantly higher than" installing Combustion Controls with capital costs for SCR at $171,900,000 and operation and maintenance costs at $2,557,934 annually); JA Vol. V, JA001064-65 (Naughton Units 1-2); JA Vol. IV, JA000883 (Dave Johnston); JA Vol. III, JA000730 (Laramie River).

2. EPA's 2012 Proposed Rule

In 2012, EPA proposed to partially approve and partially disapprove Wyoming's regional haze SIP. *See* 2012 Proposed Rule, 77 Fed. Reg. at 33022/1. EPA proposed to find that although Wyoming had conducted all five steps of the BART analysis, Wyoming's consideration of visibility improvement was inadequate. *Id.* at 33031. Specifically, for the PacifiCorp Units, Wyoming's visibility modeling combined the visibility improvement from NO_X, particulate

matter, and SO_2 control options. As a result, EPA was unable to ascertain what the visibility improvement would be from an individual NO_X control. *Id.* Additionally, Wyoming failed to provide control efficiencies[14] for the PacifiCorp sources. *Id.*

At that time, EPA did not take issue with the State's cost estimates or its evaluation of the other three statutory BART factors. *See id.*; *id.* at 33036 (Naughton); *id.* at 33055 (Wyodak). After conducting additional visibility improvement modeling, EPA proposed to approve Wyoming's determinations for all three Naughton Units and disapprove Wyoming's determination for Wyodak. 77 Fed. Reg. at 33038, 33055.

Wyodak: EPA proposed to disapprove Wyoming's BART determination for Wyodak. *Id.* at 33055. EPA proposed to conclude that the State had unreasonably rejected SNCR because the average cost effectiveness of SNCR was $958/ton (only $77/ton higher than Combustion Controls), with an incremental cost of just $1,080/ton. *Id.* EPA considered that, based on its updated visibility modeling, SNCR would result in an additional 0.15 deciviews of visibility improvement at the most impacted Class I area, Wind Cave National Park. *Id.* Consequently, EPA proposed to promulgate a FIP for Wyodak that would set a BART emission limit consistent with the installation of SNCR. *Id.* EPA proposed to eliminate SCR from

[14] Control efficiency means "the ratio of the emissions collected or destroyed by an add-on air pollution control device to the total emissions that are introduced to the control device, expressed as a percentage." 40 C.F.R. § 63.702.

consideration as BART because EPA found the cost-effectiveness value to be significantly higher than Combustion Controls with comparatively small incremental visibility improvement. *Id.*

Naughton: EPA proposed to approve Wyoming's BART determinations for Naughton Units 1 and 2. *Id.* at 33037. Specifically, EPA proposed to find that it was "reasonable for the State to eliminate higher performing control options" (i.e., SNCR and SCR). *Id.* at 33037. EPA reasoned that the cost effectiveness of SCR was "approximately $8,000 for each unit" beyond just Combustion Controls. *Id.* While the incremental cost effectiveness of SNCR was approximately $2,700 for each Unit, the incremental visibility improvement from SNCR at the most impacted Class I area, the Bridger Wilderness Area, was a mere 0.01 deciviews and 0.04 deciviews for Units 1 and 2, respectively. *Id.* Consequently, based on its "examination of the State's cost estimates, emission reductions, and the predicted visibility improvement," EPA proposed to approve the State's BART conclusions consistent with Combustion Controls for Units 1 and 2, and SCR for Unit 3. *Id.* at 33038/1.

3. EPA's 2013 Proposed Rule

Because EPA received significant additional information during the public comment period on the 2012 Proposed Rule, EPA re-proposed action on Wyoming's regional haze SIP. *See* 78 Fed. Reg. 34738 (June 10, 2013) ("2013

Proposed Rule"). This time, EPA proposed to find that Wyoming had committed multiple fundamental errors in its cost analyses and visibility modeling that rendered its consideration of the statutory cost and visibility factors unreasonable. *Id.* at 34748/1. EPA explained that Wyoming's cost information, which EPA had relied on in the 2012 Proposed Rule, contained "deficiencies in various cost assumptions and methods." *Id.* at 34748. Accordingly, EPA conducted its own analysis concerning the costs of compliance. *Id.* at 34748-49. EPA also revised its visibility modeling to align with its cost analysis and better model emission rates. *Id.* at 34749-50.[15]

As a result of EPA's updated analysis, EPA again proposed to disapprove Wyoming's BART determinations for Wyodak, but also proposed to disapprove Wyoming's BART determinations for Naughton Units 1 and 2. *Id.* at 34750. EPA specifically requested comment addressing each of its proposed determinations and whether EPA should consider another BART control option for each Unit. *See id.* at 34773 (general request); 34783 (request for Naughton Units 1 and 2); and 34785 (request for Wyodak).

---

[15] As to the other three statutory factors, EPA generally agreed with the State's analysis. EPA revised its description of existing controls for Naughton Units 1 and 2, 78 Fed. Reg. at 34781, and described existing controls for Wyodak, *id.* at 34783. For Wyodak and all three Naughton Units, EPA agreed with "the State's analysis pertaining to energy or non-air quality environmental impacts and remaining-useful-life," *Id.* at 34784 (Wyodak); *id.* at 34781 (Naughton Units 1 and 2); *id.* at 34759 (Naughton Unit 3).

Wyodak: For Wyodak, EPA again proposed to disapprove Wyoming's BART determination based on flaws with Wyoming's visibility modeling and cost calculations. 78 Fed. Reg. at 34784-85. With regard to visibility, EPA reiterated that because Wyoming modeled emission reductions for multiple pollutants together, the visibility improvement from each of the various NO_X control options could not be ascertained. *Id.* at 34749. Also, EPA found that Wyoming's failure to consider the degree of visibility improvement for SNCR, despite having found that control to be feasible, conflicted with CAA and regulatory requirements. *Id.* Wyoming's visibility analysis also used an estimate of baseline emissions was not representative of actual emissions and the post-control emission rate it selected underestimated SCR's effectiveness. *Id*. at 34748-50.

Similarly, EPA determined that the State relied on unreasonable inputs in its cost analysis by underestimating the ability of SCR to reduce emissions, overestimating the cost of SCR, and relying on flawed baseline values. *Id*. at 34748. The State inflated costs by overestimating capital costs and including allowance for funds used during construction and owner costs. *Id.* at 34748-49. After conducting its own cost calculations and revising its visibility modeling, EPA proposed to disapprove Wyoming's consideration of new Combustion Controls as BART and proposed to find that "Wyoming did not properly or reasonably conduct certain requirements of the BART analysis." *Id.* at 34784.

Consequently, EPA proposed to promulgate a FIP for Wyodak with an emission limit consistent with SNCR as BART. *Id.* at 34785. After calculating costs and revising its visibility modeling, EPA found that SNCR would yield a visibility improvement of 0.38 deciviews at the Wind Cave National Park at an average cost effectiveness of $1,979/ton and an incremental cost effectiveness of $3,725/ton. *Id.*; *id.* at 34784 Tbl.58. EPA found that the costs were within the range that states and EPA had considered reasonable in other SIP and FIP actions. *Id.* at 34785. Based on EPA's consideration of "the cost estimates, emission reductions, and the predicted visibility improvement," EPA proposed to find that SNCR was reasonable and consistent with the CAA and BART Guidelines. *Id.*

EPA did not propose to require SCR because it considered the cumulative visibility improvement (1.16 deciviews) low compared to the cumulative visibility improvements from SCR at several other Units in Wyoming (ranging from 1.97 to 4.18 deciviews). *Id.* However, EPA specifically requested additional information on the BART factors and EPA's proposed determination for Wyodak, and EPA stated that such information may lead EPA to conclude that a different control option is BART. *Id.*

Naughton: EPA proposed to disapprove Wyoming's BART determination of Combustion Controls for Naughton Units 1 and 2. Identifying the same flaws as for Wyodak in Wyoming's analysis of visibility improvement and cost of

compliance, EPA proposed to find that Wyoming did not properly or reasonably conduct certain requirements of the BART analyses. *Id.* at 34783.

In determining BART for the proposed FIP for Naughton Units 1 and 2, EPA considered its cost calculations and revised visibility modeling. EPA found the average and incremental cost effectiveness of SCR was only $2,318/ton and $6,947/ton, respectively. *Id.* at 34782, Tbl.53. EPA projected that SCR at Naughton Unit 1 would yield an improvement of 1.23 deciviews at the Bridger Wilderness Area and improvements of 0.20 to 0.56 deciviews at other Class I areas. *Id.* at Tbls.53 & 54. EPA calculated similar results for Naughton Unit 2. *See id.* at 34782-83, Tbls.55 & 56. EPA found that the costs and visibility improvements of SCR "are within the range that Wyoming in its SIP and EPA in other SIP and FIP actions have considered reasonable in the BART context." *Id.* at 34783.

In sum, EPA proposed to disapprove Wyoming's NO_X BART determination for Naughton Units 1 and 2 and set BART consistent with the installation of SCR. *See id.* at 34781-83. EPA proposed to approve the State's BART determination for Naughton Unit 3. *Id.* at 34759-60. However, EPA specifically requested additional information on the BART factors and EPA's proposed determinations for Naughton Units 1 and 2, and stated that such information may lead EPA to conclude that a different control option is BART. *Id.* at 34783.

4. EPA's Final Rule

After extending the comment period, holding multiple public hearings in Wyoming, and considering comments received on both Proposed Rules, EPA promulgated the Final Rule on January 30, 2014. Final Rule, 79 Fed. Reg. 5032; *id.* at 5038/2. In the Final Rule, EPA updated its cost analyses and visibility modeling to address comments received on the 2013 Proposed Rule, including new information. *See id.* at 5038-39. For example, EPA incorporated costs provided by commenters where EPA found them to be well-supported, and EPA improved its visibility modeling by developing a new protocol. *See id.* at 5039; *see also* EPA Region 8 Air Quality Modeling Protocol (Jan. 2014).

Based on the updated cost analyses and visibility modeling, EPA finalized its disapproval of Wyoming's BART determination for Wyodak, and promulgated a FIP requiring an emission limit consistent with the installation of SCR. *See id.* at 5046. For Naughton, EPA approved Wyoming's BART determinations for all three Units. *Id.* at 5045.

Wyodak: EPA disapproved Wyoming's BART determination based on the deficiencies with the State's visibility modeling and cost estimates that EPA had identified in the 2012 and 2013 Proposed Rules. *See* 79 Fed. Reg. at 5050; *supra* Parts B.2 & B.3. For the FIP, based on EPA's revised estimates of cost and visibility impacts, as well as comments received during the public comment period,

EPA concluded that SCR represented BART for Wyodak. 79 Fed. Reg. at 5050-51. EPA projected that SCR would result in a visibility improvement of 0.61 deciviews at Wind Cave National Park, *id.* at 5044 Tbl.15, and a cumulative visibility improvement of 1.16 deciviews, *id.* at 5178/1; *see also* 78 Fed. Reg. 34777 Tbl.45. EPA determined that it was inappropriate to reject SCR "based on the rationale that Wyodak's emissions affect fewer Class I areas than other BART-eligible sources." *Id.* at 5194/1. EPA clarified that where a control is warranted based on costs and visibility benefits to the most impacted area, "cumulative visibility benefits can only strengthen the case for that control, not suggest that it is unwarranted." *Id.* at 5050; *see also id.* at 5194.

EPA's updated cost analysis for SCR resulted in an average cost effectiveness of $4,036/ton and an incremental cost effectiveness of $6,233/ton. 79 Fed. Reg. at 5044 Tbl.15. EPA stated that the costs were in line with what it had found to be reasonable in other FIPs, and considered the costs reasonable, "especially in light of the significant visibility improvement." *Id.* EPA noted that a more modest visibility improvement of 0.38 deciviews at Badlands National Park and a nearly-double increase in visibility improvement at Wind Cave National Park of SCR over SNCR also supported selection of SCR as BART. *Id.*

Naughton: EPA approved Wyoming's BART determinations that Combustion Controls represented BART for Naughton Units 1 and 2, and SCR

represented BART for Unit 3. *See id.* at 5045, 5049-50 (Units 1 and 2); *id.* at 5045-46 (Unit 3). As with Wyodak, EPA's assessment of the costs and visibility improvement changed from the 2013 Proposed Rule based on EPA's updated analysis of those factors. *See* 79 Fed. Reg. at 5047, 5049-50. EPA had consistently proposed acceptance of Wyoming's analysis of the other three statutory factors, and EPA did not change its assessment of those factors in the Final Rule. *See id.* at 5049. For Naughton Units 1 and 2, EPA no longer considered SCR to represent BART. *Id. at* 5049-50. After reevaluating the five factors, EPA found that Wyoming's determination that Combustion Controls represented BART for Units 1 and 2 was reasonable, even after correcting for errors in the State's cost and visibility analyses. *See id.* at 5045, 5049-50.

Using the results of the updated cost analysis, EPA found that for Naughton Unit 1, the average cost effectiveness and incremental cost effectiveness for SCR are actually $3,109/ton and $10,384/ton, respectively. *Id.* at 5043 Tbl.12. EPA's updated visibility modeling projected a visibility improvement from SCR on Unit 1 of 0.39 deciviews[16] at the Bridger Wilderness Area. For Naughton Unit 2, EPA found that the average and incremental cost effectiveness of SCR are $2,566/ton

[16] EPA's visibility improvement calculations for the Naughton Units include two values, which differ depending on how background ammonia is calculated. *See* 79 Fed. Reg. at 5043, 5111-14. EPA found that "either set of results supports the same BART determination," *id.* at 5113/3, and declined to determine that one approach was superior, *id.*at 5113-14. For simplicity, we reference only the higher values.

and $8,440/ton respectively; with a visibility improvement of 0.46 deciviews at the Bridger Wilderness Area. *Id.* Tbl.13. EPA also predicted visibility improvement at other Class I areas from SCR ranging from 0.14 to 0.30 deciviews for Naughton Unit 1 and ranging from 0.17 to 0.38 deciviews for Naughton Unit 2. *See id.* at 5043-44.[17]

In reaching its conclusion, for Naughton Units 1 and 2, EPA explained that the "visibility improvement associated with [SCR] at the most impacted Class I area remains significant on a source-wide basis (1.24-1.45 deciviews) but more modest on a unit-specific basis (0.33-0.46 deciviews)." *Id.* at 5050. On cost, EPA explained that while the average cost-effectiveness values were acceptable, the revised incremental cost-effectiveness values "were beyond the upper end of the range" of what EPA had found to be acceptable in other FIPs. *Id.* In approving Wyoming's BART determination, EPA also noted that it "cannot say the State acted unreasonably in rejecting [SNCR] at Units 1 and 2 because the incremental visibility improvement of SNCR over [Combustion Controls], while possibly appreciable, is very low at just 0.10 deciviews across both units." *Id.* Thus, after reanalysis of costs and visibility impacts based on two rounds of public comment,

[17] EPA also revised its calculations for Naughton Unit 3, finding that average and incremental cost effectiveness of SCR are $3,469/ton and $4,335/ton, respectively; with a visibility improvement at the Bridger Wilderness Area of 0.60 deciviews, 79 Fed. Reg. at 5043 Tbl.14, and predicted visibility improvement at other Class I areas ranging from 0.24 to 0.44. JA Vol. IX, JA002267-69, Tbl.H.6.

EPA found it was not unreasonable for Wyoming to reject SCR and SNCR and to determine emission limits reflective of Combustion Controls as BART for Naughton Units 1 and 2. *Id.*

5. Comparison of Wyoming's and EPA's BART Determinations

As noted above, *supra* Part B.1, in addition to the Wyodak and Naughton, four Units at Jim Bridger, two Units at Dave Johnston, and three Units at Laramie River are subject to BART. EPA approved most of Wyoming's BART determinations, but disapproved and issued FIPs consistent with the installation of SCR for Wyodak, Dave Johnston Unit 3, and the three Laramie River Units. EPA's approach was straightforward and internally consistent across all facilities. EPA corrected deficiencies in Wyoming's cost and visibility analyses and updated its own analyses based on information and comments received so that the Agency had accurate numbers before it. Then, based on those numbers, if EPA determined that Wyoming had reached a reasonable result despite errors in its analysis, EPA approved the State's BART determination (e.g., Naughton). If, on the other hand, EPA determined that Wyoming had reached an unreasonable result due to such errors, then EPA disapproved the State's BART determination and promulgated a FIP (e.g., Wyodak).

Table 1 below compiles information in the Final Rule and lists EPA's corrected cost and visibility-improvement values (at each of the most impacted

Class 1 areas) for SCR at each subject-to-BART Unit. The Table is followed by a discussion of EPA's determinations as to what average and incremental cost-effectiveness values were "reasonable," and what degree of visibility improvement was sufficient to justify the selection of SCR.

TABLE 1: EPA's Evaluation of SCR

Source	Unit	Average Cost Effectiveness ($/ton)	Incremental Cost Effectiveness ($/ton)	Visibility Improvement (dv)	SCR Required	Change from Wyoming's BART selection
Dave Johnston[18]	3	2,635	7,583	0.51	Yes	Yes
	3[19]	3,742	11,781	0.51	No	Yes
	4	3,235	13,312	0.57	No	No
Jim Bridger[20]	1	2,635	7,447	0.37	Yes	No
	2	3,403	8,968	0.36	Yes	No
	3	3,320	8,015	0.35	Yes	No
	4	2,743	7,027	0.42	Yes	No
Laramie River[21]	1	4,461	5,449	0.57	Yes	Yes
	2	4,424	5,871	0.53	Yes	Yes
	3	4,375	5,667	0.52	Yes	Yes
Naughton[22]	1	3,109	10,384	0.39	No	No
	2	2,556	8,440	0.46	No	No
	3	3,469	4,335	0.60	Yes	No
Wyodak[23]	1	4,036	6,233	0.61	Yes	Yes

[18] 79 Fed. Reg. at 5042 Tbls.9-11.

[19] This alternative scenario assumes that Dave Johnston Unit 3 will shut down in 2027, which would decrease the Unit's remaining useful life and increase annualized costs. Based on public comment, EPA gave Wyoming the option of choosing this scenario in the Final Rule. *See* 79 Fed. Reg. at 5049.

[20] 79 Fed. Reg. at 5040-41 Tbls.5-8. As explained below, Note 48, EPA deferred to Wyoming's decision not to select SCR as BART for the Jim Bridger Units, since SCR was required for the Units as part of the State's long term strategy.

[21] 79 Fed. Reg. at 5039-40 Tbls.2-4.

[22] 79 Fed. Reg. at 5043 Tbls.12-14.

[23] 79 Fed. Reg. at 5044 Tbl.15.

Cost effectiveness: Like Wyoming, EPA determined that all of the average cost-effectiveness values were reasonable. Also like Wyoming, EPA determined that incremental cost-effectiveness values above $10,000/ton for SCR were generally excessive, values above $8,000/ton were beyond the upper end of the range that EPA had found to be reasonable in other actions, and a value of $7,447/ton was on the high end of that range. *See, e.g.*, Final Rule, 79 Fed Reg. at 5049/1 (Dave Johnston Unit 4); *id.* at 5050/1 (Naughton Units 1 and 2); *id.* at 5048/3 (Jim Bridger Unit 1).

Visibility: EPA focused its visibility analyses on the visibility improvement projected at the most impacted Class I area over baseline emissions.[24] This differs from Wyoming's analysis, which focused on the visibility benefit of SCR alone over Combustion Controls, summed for all affected Class I areas. Like Wyoming, EPA did not establish a bright-line threshold as to what level of improvement the Agency deemed sufficient to support the installation of SCR. EPA's selection of SCR at Dave Johnston Unit 3, the Laramie River Units, and Wyodak demonstrates,

---

[24] Although not reflected in Table 1, in addition to visibility improvement at the most impacted Class I area, EPA also considered in its analyses: the visibility improvement at the other impacted areas (i.e., cumulative visibility improvement); the incremental visibility improvements from one control to the next most stringent control (e.g., from SNCR to SCR); and the source-wide visibility improvement. *See, e.g.*, 79 Fed. Reg. at 5050/1 (discussing all of these metrics for Naughton); *see also id.* at 5050/3 (discussing the importance of visibility improvement at the most-impacted Class I area and use of cumulative visibility improvement).

however, that EPA generally considered visibility improvement (at the most impacted Class I area) greater than 0.51 deciviews to justify the selection of SCR.

BART Determinations: After considering the corrected numbers, EPA approved Wyoming's decision not to select SCR as BART at Naughton Units 1 and 2 and Dave Johnston Unit 4 in part because EPA found the incremental cost-effectiveness values for SCR were too high. *Id.* at 5049-50. However, EPA disapproved Wyoming's decision to select Combustion Controls as BART at Wyodak, Dave Johnston Unit 3, and the Laramie River Units, because in each case EPA found the average and incremental cost effectiveness of SCR reasonable and the visibility improvement at the most impacted Class I area significant. *Id.* at 5047, 5049-51.

SUMMARY OF ARGUMENT

The dispute in this case concerns EPA's authority and rationale for its determinations concerning whether SCR represents BART for NO_X at two power plants in Wyoming. Wyoming and PacifiCorp argue that EPA's selection of SCR for Wyodak was impermissible, while Conservation Organizations argue that EPA acted unreasonably in not selecting SCR for two Units at Naughton. Both arguments lack merit, and all the petitions should be denied.

1. EPA acted within its statutory and regulatory authority in reviewing Wyoming's BART determinations for compliance with the CAA and the Haze

Rule. As the Court held in *Oklahoma v. EPA*, the CAA and the Haze Rule give EPA substantive oversight authority to review SIPs for compliance with applicable requirements. 723 F.3d at 1204. In reviewing Wyoming's SIP, EPA appropriately looked to the BART Guidelines, which articulate EPA's well-established and reasonable approach to considering the five statutory factors. EPA acted reasonably and within its authority in approving Wyoming's BART selections for Naughton where the State reached a reasonable conclusion and in disapproving its BART selection and promulgating a FIP for Wyodak where Wyoming's determination was lacking.

In particular, EPA reasonably concluded that Wyoming's BART determination for Wyodak was unreliable given Wyoming's flawed analysis of two of the five statutory factors: the anticipated improvement in visibility and the costs of compliance. For visibility, Wyoming (i) failed to clearly model emission reductions from different pollutants separately; (ii) failed to model visibility improvement achievable through the installation of SNCR; and (iii) relied on unrealistic baseline emissions and a post-emission control rate that underestimated the effectiveness of SCR. And PacifiCorp's arguments that anticipated visibility improvements from SCR fall within the margin of error for the CALPUFF model are without merit. For costs of compliance, (i) Wyoming's cost-effectiveness calculations again used unrealistic baseline emissions and underestimated SCR's

cost effectiveness; and (ii) Wyoming inflated costs by improperly including allowances for funds used during construction and owner's costs in its cost calculations, and by overestimating capital costs. Under these circumstances, Wyoming could not reasonably weigh the five statutory BART factors.

Due to these errors, EPA recalculated the anticipated improvement in visibility and the costs of compliance using appropriate inputs and found that Wyoming unreasonably concluded that an emission limit consistent with Combustion Controls represented BART for Wyodak. Accordingly, EPA disapproved Wyoming's SIP for Wyodak. That Wyoming's 2011 SIP for Wyodak met the 2005 presumptive limits in the BART Guidelines does not displace the State's obligation to reasonably weigh the five statutory BART factors nor does it excuse the State's failure to do so.

2. EPA reasonably promulgated a FIP for Wyodak. EPA considered all five statutory factors—including energy and non-air quality environmental impacts of SCR—and weighed them appropriately in making a BART determination for Wyodak. EPA also reasonably considered Wyodak's later-installed Combustion Controls in a practical but limited way since they were installed after the baseline period and after Wyoming submitted its SIP. At bottom, EPA reasonably gave significant weight to its evaluation of the anticipated visibility improvement—the

highest associated with any Wyoming facility—and reasonable costs of compliance in selecting SCR as BART for Wyodak.

3. For Naughton, EPA identified similar flaws in Wyoming's assessment of the anticipated improvement in visibility and the costs of compliance factors and conducted its own analysis of those factors. However, EPA ultimately concluded that Wyoming's selection of Combustion Controls as BART for Units 1 and 2 was not unreasonable, even when correcting for the State's errors. Accordingly, EPA approved the SIP for those Units.

Contrary to Conservation Organizations' arguments, EPA based its conclusion on its assessment of all five statutory factors. EPA considered that the visibility improvement from SCR would be less than it had anticipated in the 2013 Proposed Rule, while the incremental cost would be higher. Indeed, EPA found the incremental cost was at the upper end of the range of what EPA considered reasonable in other actions. EPA therefore found Wyoming's decision not to select SCR (or SNCR) reasonable. Additionally, contrary to Conservation Organizations' argument, EPA's calculation of costs in the Final Rule incorporated vendor quotes and did not rely on costs from the Integrated Planning Model and application of a retrofit factor.

STANDARD OF REVIEW

I. The CAA and APA Standard of Review

This Court should apply the straightforward and well-established arbitrary-and-capricious standard of review. The CAA provides the standard of review applicable to EPA's promulgation of FIPs, while approvals and disapprovals of SIPs are governed by the Administrative Procedure Act ("APA") standard of review. 42 U.S.C. § 7607(d)(1)(B), (9)(A); 5 U.S.C. § 706(2)(A); *Alaska Dep't of Env't Conservation v. EPA*, 540 U.S. 461, 496-97 (2004) ("*Alaska DEC*"); *accord WildEarth Guardians v. EPA*, 770 F.3d 919, 927 (10th Cir. 2014). Ultimately, the two standards are the same. *See Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 519-20 (D.C. Cir. 1983). The Supreme Court and this Court have applied the arbitrary-and-capricious standard to agency actions for decades. *See, e.g.*, *Alaska DEC*, 540 U.S. at 496-97 (applying the same standard of review to evaluate EPA's finding that Alaska's "Best Available Control Technology" determination under the Act's Prevention of Significant Deterioration program was unreasonable). Most notably, this Court applied the arbitrary-and-capricious standard in *Oklahoma v. EPA*, which like this case involved EPA's disapproval of a state's BART determinations and issuance of a FIP. *Oklahoma*, 723 F.3d at 1211; *see also WildEarth Guardians*, 770 F.3d at 919 (applying the same standard of review to EPA's approval of SIPs providing for a BART-alternative program);

WildEarth Guardians v. EPA, 759 F.3d 1196, 1203 (10th Cir. 2014) (applying the same standard of review to a regional haze FIP). Petitioners concede this. *See* PacifiCorp Br. at 14; WY Br. at 26; Conservation Orgs. Br. at 19.

The familiar arbitrary-and-capricious standard is a narrow and deferential one that prohibits the court from substituting its judgment for that of the agency. *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). The court must consider whether the agency's decision "was based on a 'consideration of the relevant factors and whether there has been a clear error of judgment.'" *Bowen Transp., Inc. v. Ark.-Best Freight Sys., Inc.*, 419 U.S. 281, 285 (1974) (citation omitted). "'Even when an agency explains its decision with less-than-ideal clarity, a reviewing court will not upset the decision on that account if the agency's path may reasonably be discerned.'" *Oklahoma*, 723 F.3d at 1211 (quoting *Alaska DEC*, 540 U.S. at 497).[25]

---

[25] Although this Court stated in *Oklahoma* that EPA has less discretion when disapproving a SIP than when promulgating a FIP, *see Oklahoma*, 723 F.3d at 1213 n.7, that statement merely reflects that EPA has no discretion and *must* disapprove a SIP if it is inconsistent with the CAA and regulations, while EPA has more flexibility in developing a FIP. It is not an indication that the standard of judicial review is something other than the familiar arbitrary-and-capricious standard. *See id.* at 1215 (stating that the Court reviews the challenges to EPA's FIP "while recognizing this requires a slightly different perspective: evaluating the EPA's own choices under the guidelines, as opposed to evaluating its choice to reject the Oklahoma SIP under the guidelines."); *id.* at 1211-14 (examining *EPA's* record and finding reasonable *EPA's* rejection of the cost estimates used to support Oklahoma's BART determination); *see also Alaska DEC*, 540 U.S. 496-99 (examining *EPA's* record and finding reasonable *EPA's* rejection of Alaska's

Under this standard of review, the Court reviews EPA's action on Wyoming's SIP for reasonableness. The Court does not, as Wyoming suggests, review the reasonableness of Wyoming's SIP. WY Br. at 27. Wyoming takes language from two cases out of context: *Alaska DEC* and *Luminant Generation Co. LLC v. EPA*, 714 F.3d 841, 858 (5th Cir. 2013). In *Luminant*, the Fifth Circuit deferred to EPA's interpretation of the CAA where EPA reasoned that it did not need to find that a violation of the national ambient air quality standards would occur before disapproving a SIP. *Luminant*, 714 F.3d at 858. The court agreed with EPA's position that the CAA requirement that EPA disapprove a SIP if it "would interfere with any applicable requirement concerning attainment" is "quite distinct from an obligation to prove that a violation will occur." *Id.* (quoting 75 Fed. Reg. at 68994 and 42 U.S.C. § 7410). Consistent with the arbitrary-and-capricious standard of review, EPA simply needs to provide its rationale for why the disapproved provision would interfere with an applicable CAA requirement. *See id.*

As for *Alaska DEC*, Wyoming confuses the general standard of review with the particular action at issue in that case. The CAA provisions at issue in *Alaska DEC* authorized discretionary enforcement action by EPA, including, among other

---

BACT determination); *North Dakota*, 730 F.3d at 759-60 (examining *EPA's* record and finding reasonable *EPA's* rejection of flawed data used to support North Dakota's BART determination).

things, issuance of a stop-construction order or commencement of a civil action in federal court. *See* 42 U.S.C. §§ 7413(a)(5), 7477. In the passage of *Alaska DEC* cited by the State, *see* WY Br. at 27, the Supreme Court was addressing the concern that EPA might gain a "proof-related tactical advantage" by opting for a stop-construction order rather than a civil enforcement action. *Alaska DEC*, 540 U.S. at 493. The Supreme Court did no more than clarify that, to eliminate this possibility, "in either an EPA-initiated civil action or a challenge to an EPA stop-construction order filed in state or federal court, the production and persuasion burdens remain with EPA." *Id.* at 494.

But in this case, EPA did not act in an enforcement capacity. Rather, EPA was exercising its authority to review and act on a SIP under 42 U.S.C. § 7410, an action that is routinely reviewed under the arbitrary-and-capricious standard, with the burden resting on petitioners. *See, e.g.*, *Oklahoma*, 723 F.3d at 1211-22 (addressing each of the petitioners' arguments rather than undertaking a review of EPA's entire action to determine if EPA met its burden in demonstrating that Oklahoma's SIP was inadequate and EPA's FIP was reasonable). As explained below, Petitioners have failed to meet that burden. The Ninth Circuit rejected a similar attempt to shift the burden to EPA in *Darwin*, 815 F.3d at 531-32. That court distinguished *Alaska DEC* and explained that such "prospective administrative agency rulemaking is ordinarily reviewed under the APA's arbitrary

and capricious standard; there is no basis for applying a different standard here." *Id.* at 532. This Court should similarly reject Wyoming's attempts to shift the review from EPA's actions to the State's actions.

II. Deference Due to EPA's Interpretations of the CAA, Interpretations of its Regulations, and its Technical Expertise

The Court reviews an agency's interpretations of a statute it administers under the familiar analytical framework established in *Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842-43 (1984). If "Congress has directly spoken to the precise question at issue," the Court must apply the plain terms of the statute. *Id.* If, however, the statute is silent or ambiguous on the specific issue, the Court considers whether the agency's interpretation of the statute is permissible. *Id.* at 843; *see also Zarate-Alvarez v. Garland*, 994 F.3d 1158, 1161-62, 1164 (10th Cir. 2021). Where *Chevron* does not apply, such as where an agency's interpretation is reached in an informal adjudication and without the benefit of notice-and-comment, the Court affords the agency's interpretation a measure of deference proportional to the thoroughness evident in its consideration, the validity of its reasoning, its consistency with earlier and later pronouncements, and all those factors which give it power to persuade. *Skidmore v. Swift & Co.*, 323 U.S. 134 (1944); *see generally, e.g.*, *Sinclair Wyo. Ref. Co. v. EPA*, 887 F.3d 986, 991-92 (10th Cir. 2017).

EPA's interpretations of its own regulations also receive deferential review. *Kisor v. Wilkie*, 139 S. Ct. 2400 (2019); *see also Suncor Energy (U.S.A.), Inc. v. EPA*, 50 F.4th 1339, 1353 (10th Cir. 2022). Absent a genuine ambiguity, the plain terms of a regulation govern. *Kisor*, 139 S Ct. at 2415. Where there is ambiguity, the agency's interpretation will be affirmed if it is reasonable and if the "character and context of the agency interpretation entitles it to controlling weight." *Id.* at 2416-18; *see also Suncor*, 50 F.4th at 1353-54.

EPA's factual findings are likewise entitled to substantial deference. *See Arkansas v. Oklahoma*, 503 U.S. 91, 110-13 (1992). "When an agency acts under an unwieldy and science-driven statutory scheme[] like the Clean Air Act, [the Court] affords the agency particular deference." *WildEarth Guardians*, 770 F.3d at 927 (internal quotations omitted). EPA's factual determinations should be upheld as long as they are supported by the administrative record, even if the record could also support alternative findings. *Id.*; *see also Morgan v. Sec'y of Housing & Urban Dev.*, 985 F.2d 1451, 1457 (10th Cir. 1993). Indeed, where the action at issue involves "technical or scientific matters within the agency's area of expertise" deference to the agency is "especially strong." *Oklahoma*, 723 F.3d at 1216-17 (quoting *San Juan Citizens All. v. Stiles*, 654 F.3d 1038, 1045 (10th Cir. 2011)).

ARGUMENT

I. EPA Acted within Its Statutory Authority in Reviewing Wyoming's BART Determinations and in Promulgating a FIP Where Wyoming's Determinations Were Lacking.

A. The CAA and the Haze Rule Give EPA Substantive Oversight Authority in Reviewing SIPs.

Wyoming and PacifiCorp argue that EPA has limited authority to disapprove SIPs and exceeded that authority when it disapproved Wyoming's BART determination for Wyodak. *See* WY Br. at 30-41; PacifiCorp Br. at 20-26. First, in well-established and binding precedent, this Court already decided the extent of EPA's authority to review a SIP. In *Oklahoma v. EPA*, this Court affirmed that the CAA unambiguously grants EPA the authority to substantively review states' BART determinations for compliance with the CAA, the Haze Rule, and, where applicable, the BART Guidelines. *See Oklahoma*, 723 F.3d at 1207-10. Specifically, the Court cited:

- 42 U.S.C. § 7410(*l*), which prohibits EPA from approving any SIP revision "if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress . . . or any other applicable requirement" of the Act;

- 42 U.S.C. § 7410(a)(2)(J), which requires SIPs to "meet the applicable requirements" of the Act including the CAA's visibility provisions; and

- 42 U.S.C. § 7491(b), which required EPA to promulgate regulations requiring states to submit SIPs that include BART determinations for

> eligible Units and adhere to certain requirements, including the BART Guidelines for larger Units, when conducting their BART analyses.

See Oklahoma, 723 F.3d at 1207-08. Thus, the Court concluded: "Given that the statute mandates that the EPA must ensure SIPs comply with the statute, we fail to see how the EPA would be without the authority to review BART determinations for compliance with the guidelines." *Id.* at 1208.

Accordingly, while EPA acknowledges states' primary responsibility for determining BART, *see* 42 U.S.C. § 7491(b)(2)(A) (defining BART as "as determined by the State"), and accords states appropriate deference in reviewing those determinations, *see* 70 Fed. Reg. at 39123/3 ("States are free to determine the weight and significance to be assigned" to each of the five factors), EPA's authority to review those determinations is not as limited as Wyoming and PacifiCorp argue. *See Oklahoma*, 723 F.3d at 1204, 1207-10 (explaining that states exercise SIP authority with "federal oversight" and concluding that "because the EPA monitors SIPs for compliance with the statute, it must monitor BART determinations for compliance with the guidelines"); *accord North Dakota*, 730 F.3d at 761 (citing *Oklahoma* and stating that in reviewing state BART determinations, "EPA is left with *more than the ministerial task* of routinely approving SIP submissions" (emphasis added)); *Darwin*, 815 F.3d at 525 (citing *Oklahoma* in explaining that "EPA reviews the states' SIP submissions, if any, for consistency with the statute and regulations"). Indeed, given that the focus of the

CAA visibility provisions is on visibility improvement in *federal* areas, it would be odd for Congress to give states unfettered discretion without meaningful federal oversight. Instead, Congress gave EPA the authority to substantively review states' BART determinations for compliance with the statute, the Haze Rule, and, where applicable, the BART Guidelines. *Oklahoma*, 723 F.3d at 1207, 1210; *accord North Dakota*, 730 F.3d at 761; *Nebraska v. EPA*, 812 F.3d 662, 667 (8th Cir. 2016) (similar).

In arguing that EPA acted outside of its statutory authority, PacifiCorp points to two Fifth Circuit cases: *Texas v. EPA*, 690 F.3d 670, 679 (5th Cir. 2012), and a footnote in *Sierra Club v. EPA*, 939 F.3d 649, 673 n.106 (5th Cir. 2019). Neither of these cases is inconsistent with the conclusion in *Oklahoma* that the statute gives EPA the power to review a state's BART determinations for consistency with the statute and its implementing regulations. *Compare Texas*, 690 F.3d at 686 ("We thus find that the EPA's objections to the emissions caps of the Flexible Permit Program rely on standards not found in the CAA or its implementing regulations.") *and Sierra Club*, 939 F.3d. at 673 n.106 ("A state has 'wide discretion' in formulating its SIP and 'may select whatever mix of control devices it desires' *so long as national standards are met*.") *with Oklahoma*, 723 F.3d at 1209 ("While the legislative history may evidence an intent to prevent the EPA from *directly* making those BART decisions, it does not necessarily evidence

an intent to deprive the EPA of any authority to ensure that these BART decisions comply with the statute."). And, as explained in Argument Part II, *infra*, EPA found flaws in Wyoming's visibility analyses and cost calculations, and disapproved portions of Wyoming's SIP as inconsistent with the requirements of the CAA and the Haze Rule. Even if the Fifth Circuit has arguably articulated a more constrained view of EPA's role in reviewing SIPs for consistency with the statute and its implementing regulations, the controlling law in this Circuit is *Oklahoma*.

As *Oklahoma* explained, "the statute provides the agency with the power to review [a state's] BART determination." 723 F.3d at 1207. The statute requires SIPs to "meet the applicable requirements of," the CAA, including the visibility provisions of the Act. 42 U.S.C. § 7410(a)(2)(J); *see id.* §§ 7491, 7492. The statute does not allow EPA to approve any plan revision "if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress . . . or any other applicable requirement" of the Act. *Id.* § 7410(*l*). And the statute requires EPA to promulgate regulations that require SIPs "to contain such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal." *Id.* § 7491(b)(2). States have discretion in balancing the five BART factors, but the statute also

mandates that states "adhere to certain requirements when conducting a BART analysis." *Oklahoma*, 723 F.3d at 1208.

A recent Ninth Circuit case, *Arizona ex rel. Darwin v. EPA*, 815 F.3d 519 (9th Cir. 2016), demonstrates that EPA's review for compliance with the CAA and Haze Rule is rigorous. In *Darwin*, the Ninth Circuit explained that "States are required by statute to consider 'costs of compliance,'" as well as expected visibility improvements "in making BART determinations." 815 F.3d at 534 (citing 42 U.S.C. § 7491(g)(2)). The Ninth Circuit found that, in disapproving Arizona's regional haze SIP for a certain Unit, EPA acted reasonably when it concluded that Arizona's analysis was inadequate where it had not been presented with enough data about the costs of various controls, it understated the visibility benefits of installing SCR, and the SIP failed to provide a reasoned explanation for the bases of the ultimate BART determination. *Id.* at 534-35, 537. Similarly, here, EPA determined that Wyoming did not reasonably consider two of the five statutory BART factors because of inaccuracies in cost calculations and deficiencies in its visibility analysis. EPA was not required to accept Wyoming's BART determination regardless of whether its cost and visibility analyses were reasonable. And, despite PacifiCorp's arguments to the contrary, EPA has explained in detail how Wyoming failed to meet these requirements. *See* Argument Parts II.B-D, *infra*.

PacifiCorp argues in a footnote that EPA's review authority as articulated in *Oklahoma* has been superseded by the Supreme Court's decision in *Kisor* and this Court's decision in *Suncor Energy*. *See* PacifiCorp Br. at 16 n.8. But PacifiCorp never explains how *Kisor* or *Suncor*—both of which concern the deference owed to an agency's interpretation of a genuinely ambiguous *regulation*—undermined this Court's holding in *Oklahoma* on the *statutory* requirements of the CAA. In short, because there is no intervening Supreme Court precedent that "contradicts or invalidates our prior analysis," *United States v. Salazar*, 987 F.3d 1248, 1254 (10th Cir. 2021) (citation omitted), *Oklahoma* is, and remains, controlling precedent in this Circuit.

PacifiCorp also argues that *Oklahoma* is factually distinguishable because (1) *Oklahoma* involved the application of the BART Guidelines to a large power plant for which the Guidelines were mandatory, and (2) Oklahoma's SIP did not meet the presumptive BART emission limits in the Guidelines, unlike Wyoming's SIP for Wyodak. As explained in Argument Parts II.A-D, *infra*, EPA appropriately rejected Wyoming's SIP for Wyodak for failure to properly analyze the statutory BART factors, considering the BART Guidelines as "helpful guidance." And as explained in Argument Part II.E, *infra*, the 2005 presumptive limits do not absolve Wyoming from the statutory requirement to select BART after a five-factor

analysis. These "factual distinctions" change nothing about the Act's requirements nor EPA's role in ensuring that Wyoming's SIP complies with them.

As this Court explained in *Oklahoma*, EPA's authority to substantively review states' BART determinations is fully consistent with Congress's intention for cooperative federalism under the CAA's visibility provisions and other parts of the CAA meant to protect *federal* lands. "While the legislative history may evidence an intent to prevent the EPA from directly making [] BART decisions, it does not necessarily evidence an intent to deprive the EPA of any authority to ensure that [] BART decisions comply with the statute. . . . [S]tates have the ability to create SIPs, but they are subject to EPA review." 723 F.3d 1209 (quoting H.R. Conf. Rep. No. 95-564, at 155 (1977) and 123 Cong. Rec. 26,854 (1977)); *see also* 123 Cong. Rec. 27,070 (Statement of Rep. Paul Rogers) ("The conferees also rejected a motion to delete EPA's supervisory role under [42 U.S.C. § 7410] to assure that the required progress toward [the national] goal will be achieved by the revised State plan. If a State visibility protection plan is not adequate to assure such progress, then [EPA] must disapprove that portion of the SIP and promulgate a visibility protection plan under [42 U.S.C. § 7410(c)]. Thus, visibility protection in most mandatory federal Class I areas remains a national commitment, which is nationally enforceable."). *See also* Final Rule, 79 Fed. Reg. at 5062/1.

This Court's *Oklahoma* decision is complemented by the Supreme Court's rationale in *Alaska DEC*, upholding EPA's authority to review Best Available Control Technology ("BACT") determinations under the CAA's Prevention of Significant Deterioration program. In holding that EPA has the "checking authority" to review state BACT determinations, the Supreme Court made clear that this review power is meaningful:

> In keeping with the broad oversight role [that the relevant statutory provisions] vest in EPA, the Agency maintains, it may review permits to ensure that a State's BACT determination is reasonably moored to the Act's provisions. . . . We hold, as elaborated below, that the Agency has rationally construed the Act's text and that EPA's construction warrants our respect and approbation.

Alaska DEC, 540 U.S. at 485. The Court further explained that, although a state retains "considerable leeway" to determine what constitutes BACT, the Agency may "step in to ensure that the statutory requirements are honored." *Id.* at 490. Thus, the Court concluded that "EPA's limited but vital role in enforcing BACT is consistent with a scheme that places primary responsibilities and authority with the States, backed by the Federal Government." *Id.* at 491 (quotations omitted). This language is consistent with this Court's conclusion that EPA is authorized to disapprove a BART determination that does not meet the requirements of the Act, the Haze Rule, or, where applicable, the BART Guidelines. *See North Dakota*, 730 F.3d at 761 (finding *Alaska DEC* "persuasive" on the question of EPA's review authority under the CAA's visibility provisions); *see also Darwin*, 815 F.3d at 531

(holding that *Alaska DEC* "is thus fully consistent with our conclusion that EPA has substantive authority to assure that a state's proposals comply with the Act, not simply the ministerial authority to assure that the state has made some determination of BART."). Accordingly, Wyoming's and PacifiCorp's argument that EPA lacks authority to evaluate the State's BART determination for Wyodak is foreclosed by *Oklahoma* and must be rejected.

B. EPA's Framework for Reviewing a State's BART Determinations Ensures They Are Reasonably Moored to the CAA and Haze Rule.

EPA's framework for reviewing a SIP's BART determinations ensures they are "reasonably moored to" the CAA and the Haze Rule, *Alaska DEC*, 540 U.S. at 485—not, as PacifiCorp argues, EPA's own preferences, *see* PacifiCorp Br. at 24-26. As discussed in Argument Part I.A, *supra*, Congress tasked EPA, in reviewing a state's BART determinations, with ensuring that the applicable statutory and regulatory requirements are met. Petitioners do not dispute the requirements of the statute and the Haze Rule—i.e., that certain eligible sources are subject to BART and that BART is determined based on an analysis of the five factors, including cost and visibility. *See* 42 U.S.C. § 7491(b)(2)(A), (g)(2); 40 C.F.R. § 51.308(e)(1)(ii)(A). Likewise, Petitioners do not dispute that the Haze Rule and the BART Guidelines represent EPA's settled interpretation of a reasonable approach to fulfilling the BART requirements.

Because the BART analysis is technical and complex—involving cost calculations and visibility modeling for potential control options at each subject-to-BART Unit—EPA evaluates whether a state has made a reasonable determination, supported by the factual record, that meets the statutory and regulatory requirements. *See North Dakota*, 730 F.3d at 766 ("EPA's review of a SIP extends not only to whether the state considered the necessary factors in its determination, but also to whether the determination is one that is reasonably moored to the CAA's provisions."); *id.* at 761 (accepting state's acknowledgement "that EPA would have the authority to disapprove a SIP if the state plainly proceeded without a sufficient factual basis."); *see also Darwin*, 815 F.3d at 531. If EPA determines that a state has met those requirements, EPA must approve the submission. 42 U.S.C. 7410(k)(3). Specifically, EPA assesses "whether the state's determination is reasonable in light of the facts and consistent with the requirements of the Clean Air Act and implementing regulations." Final Rule, 79 Fed. Reg. at 5047/2. If so, EPA will approve the determination, even if it is not the outcome that EPA would have chosen if EPA had been making the decision in the first instance. *Id*. at 5047/2-3. If, however, the State's analysis fails to meet the relevant statutory and regulatory requirements and results in an unreasonable determination, EPA will disapprove the determination. Courts have approved this approach. *See, e.g.*, *Oklahoma*, 723 F.3d at 1212-13; *Darwin*, 815 F. 534-38.

Indeed, as the agency tasked with administering the CAA and ensuring SIPs meet applicable requirements, EPA has amassed extensive technical expertise in evaluating the costs and benefits of air pollution controls, including controls considered as BART. EPA processes hundreds of SIP submissions annually, approving or disapproving those submissions for a wide variety of reasons. EPA has approved hundreds of BART determinations, has disapproved some others, and has approved almost all other elements of states' regional haze SIPs for the first planning period. *See, e.g.*, 77 Fed. Reg. 24845 (Apr. 26, 2012) (fully approving the South Dakota regional haze SIP); 78 Fed. Reg. 53250 (Aug. 29, 2013) (fully approving the Florida regional haze SIP); 77 Fed. Reg. 51915 (Aug. 28, 2012) (approving the New York regional haze SIP except for BART for one facility); 77 Fed. Reg. 17334 (Mar. 26, 2012) (same for Nevada). As in those actions, EPA appropriately exercised its authority and technical expertise here to partially approve and partially disapprove Wyoming's SIP.

II. EPA Reasonably Disapproved Wyoming's BART Determination for Wyodak.

In evaluating whether Wyoming's SIP complied with the CAA and the Haze Rule, EPA determined that Wyoming had not sufficiently analyzed two of the five statutory BART factors: anticipated visibility improvements and costs of compliance. EPA found that Wyoming's flawed analysis of these two factors resulted in Wyoming making an unreasonable BART determination for Wyodak

that did not meet the requirements of the CAA and the Haze Rule. 2013 Proposed Rule, 78 Fed. Reg. at 34748-50, 34784-85. Accordingly, EPA disapproved Wyoming's BART determination for Wyodak.

The State and PacifiCorp make a series of arguments challenging EPA's disapproval of Wyoming's BART determination for Wyodak. Wyoming and PacifiCorp's arguments that EPA arbitrarily and capriciously disapproved Wyoming's BART determination for Wyodak can be grouped into four primary buckets: (1) EPA unlawfully required compliance with the BART Guidelines and applied them in a contradictory manner; (2) EPA inconsistently quibbled with Wyoming's analysis of ultimately similar cost and visibility improvement numbers for SCR and ultimately treated its own preferences as BART; (3) EPA ignored flaws in its own analysis; and (4) EPA cannot disapprove Wyoming's BART determinations since they meet the 2005 presumptive limits in the BART Guidelines. As demonstrated in detail below, all of Petitioners' arguments lack merit.

A. EPA Appropriately Considered the BART Guidelines and Control Cost Manual in Disapproving Wyoming's BART Determination for Wyodak.

1. EPA reasonably looked to the BART Guidelines in evaluating Wyoming's SIP.

Contrary to PacifiCorp's and the State's arguments, *see* PacifiCorp Br. at 27-35 and WY Br. at 41-46, EPA did not disapprove the State's BART determination

for Wyodak simply because it failed to comply with the BART Guidelines. Instead, the State made significant analytical errors in its assessment of two of the five statutory BART factors in its determination for Wyodak that resulted in an unreasonable BART determination. *See* 79 Fed. Reg. at 5053/1; *Darwin*, 815 F.3d at 537. Those errors are discussed in detail below. *See* Argument Parts II.B and C.

The Guidelines are EPA's articulation of a method for determining BART that satisfies statutory and regulatory requirements. The Guidelines must be followed for large sources and are helpful guidance for all sources. Indeed, Wyoming purported to follow the Guidelines for all Units in its SIP—consistent with its state law. But Wyoming departed from the Guidelines in several ways without explaining how its analyses might nonetheless comply with the CAA and Haze Rule. Accordingly, consistent with the CAA, Haze Rule, Guidelines, and EPA's longstanding practice, EPA considered the Guidelines as "helpful guidance" in evaluating Wyoming's BART determination for Wyodak. This was not improper or unreasonable. Nor did it render the Guidelines "mandatory" for Wyodak.

a. EPA's consideration of the Guidelines as helpful guidance is consistent with the CAA, Haze Rule, and the Guidelines.

The CAA sets forth the five BART factors, but it does not explain precisely how states or EPA should consider them. Instead, the Act required EPA to

promulgate regulations, including to "provide guidelines to the States, . . . on appropriate techniques and methods for implementing" the visibility provisions. 42 U.S.C. § 7491(b)(1). In other words, Congress directed EPA to provide instruction—through regulations—on technical issues such as measuring visibility impairment, modeling techniques, and methods for preventing and remedying visibility impairment. *See id.* § 7491(b)(1), (a)(3). EPA complied with this congressional mandate by promulgating the Haze Rule and the BART Guidelines. While the CAA makes the Guidelines mandatory for large power plants, *id.* at § 7491(b)(2) (last sentence), nothing in the statute precludes their consideration for smaller power plants.

In the preamble to the Haze Rule, EPA explained that the Guidelines are "helpful guidance" and they "provide useful advice in implementing the BART provisions of the regional haze rule" for smaller sources and encouraged states to follow the Guidelines for all sources. 70 Fed. Reg. at 39108/3; *see* 42 U.S.C. § 7491(b)(2). The Guidelines clarify that while their process is "not required" for smaller sources, the Guidelines "provide a process for making BART determinations that States can use in implementing the regional haze BART requirements on a source-by-source basis, as provided in 40 CFR 51.308(e)(1)." 40 C.F.R. pt. 51, App. Y, I.F.1. Similarly, while states "retain the discretion to adopt approaches that differ from the guidelines," the Guidelines "establish an approach

to implementing the requirements of the BART provisions of the regional haze rule" with "procedures and the discussion of the requirements of the regional haze rule and the CAA" that "should be useful to the States." *Id.* at I.H.

The Agency promulgated the BART Guidelines, at Congress's command, using its substantive expertise. That same expertise informed EPA's decision to use the Guidelines as helpful guidance for Units at smaller power plants. And the BART Guidelines' utility in evaluating BART determinations for such sources, as a guiding but rebuttable reference point, reflects the agency's fair and considered judgment. In essence, the Guidelines are EPA's articulation of a reasonable approach to making a BART determination.

b. EPA's consideration of the BART Guidelines with regard to Wyodak was reasonable.

Not only does Wyoming admit that it used the Guidelines as "helpful guidance" in determining BART for Wyodak, s*ee* WY Br. at 18 n.7, it was required by state law to do so. Wyoming's state law requirements explicitly endorse the Guidelines. *See* WAQSR Chapter 6 Section 9(c)(ii), (e)(i)(E). Wyoming requires owners of small Units to "use Appendix Y as guidance for preparing their best available control retrofit technology determinations." WAQSR Chapter 6 Section 9(c)(ii). Though they contest EPA's use of the Guidelines, neither Wyoming nor PacifiCorp, in the BART analysis prepared by its consultant, indicated any intent to depart from the Guidelines in analyzing potential control

technologies. *See* JA Vol. V, JA001180-85, JA001189, JA001192, JA001196, JA001198, JA001201, JA001218, Wyo. Analysis for Wyodak (applying BART Guidelines).

However, as explained in Arguments Parts II.B, C, and D, EPA reasonably disapproved Wyoming's BART determination because it was inconsistent with the CAA and the Haze Rule. As detailed below, Wyoming relied on flawed cost calculations and visibility modeling. Even though Wyoming was not required by the Haze Rule to follow the BART Guidelines for Wyodak, Wyoming did not have "unfettered discretion to act unreasonably or inconsistently with the CAA" or the Haze Rule. 79 Fed. Reg. at 5053/1. Put differently, when a state relies on erroneous cost calculations and visibility modeling, as Wyoming did here, its consideration of the five statutory factors cannot be reasonable. Where such unreasonable consideration results in the selection of a control as BART that would be unsupported by a reasonable consideration of the five statutory factors, the State has failed to choose the best system of control as required *by the statute*. 42 U.S.C. § 7491(b)(2); 79 Fed. Reg. at 5053/1; *Alaska DEC*, 540 U.S. at 490 (EPA may disapprove a state determination if it is "not based on a reasoned analysis"). Thus, where a state purports to but does not follow the Guidelines, it is reasonable for EPA to expect the state to provide some explanation as to why its alternative approach is also reasonable and consistent with the statute. Wyoming did not offer

such explanation in its SIP nor do Wyoming and PacifiCorp offer such explanation in their briefs.

While "States retain the discretion to adopt approaches that differ from the guidelines," 40 C.F.R. pt. 51, App. Y, I.H, a state's BART determination must still be reasonable in light of the five statutory factors. The CAA requires that a state must demonstrate that it has adopted the "*best available* retrofit technology" by reasonably considering the five statutory factors. 42 U.S.C. § 7491(b)(2) (emphasis added); 40 C.F.R. § 51.308(e)(1)(ii)(A). Inherent in a determination of the "best" system of control is comparison. BART determinations, especially the costs of compliance and visibility improvement analyses, are relative—they are generally reasonable when they are in line with what has been required elsewhere. *See, e.g.*, 40 C.F.R. pt. 51, App. Y, IV.D.4.a.2 ("Inadequate documentation of the equipment whose emissions are being controlled is a potential cause for confusion in comparison of costs of the same controls applied to similar sources."); *id.* at IV.D.4.a.5 ("In order to maintain and improve consistency, cost estimates should be based on the . . . Control Cost Manual, where possible."); *id.* at IV.D.4.f ("You should provide documentation of any unusual circumstances that exist for the source that would lead to cost-effectiveness estimates that would exceed that for recent retrofits."). Thus, comparisons between Units, large and small, are necessary, and EPA's reference to the BART Guidelines is reasonable because it

guides a fair comparison. *See Darwin*, 815 F.3d 519, 540-41 (9th Cir. 2016) ("The purpose of the cost analysis . . . is to foster comparison of the cost of the visibility improvements enabled by various control technologies. . . . Control options are likely to impact similar sources similarly; comparisons assure that the cost and benefit figures used for a particular site are realistic, rather than inflated in one direction or another."). Here, EPA reasonably looked to the Guidelines in explaining how Wyoming's consideration of the five factors was unreasonable and in conducting cost analysis and visibility improvement modeling.

c. Petitioners' arguments may be time-barred, and EPA's reasonable interpretation is entitled to deference.

To the extent that Wyoming and PacifiCorp challenge EPA's use of the Guidelines as helpful guidance to inform whether Wyoming's BART determination met the five statutory factors, their challenge is untimely. EPA explained this use of the Guidelines in the Haze Rule, and Wyoming and PacifiCorp failed to challenge that Rule. *See* 42 U.S.C. § 7607(b) (requiring petition for review to be filed within sixty days of a rule's publication); *WildEarth Guardians v. EPA*, 770 F.3d 919, 929-30 (10th Cir. 2014) (finding challenge to use of Guidelines untimely). Additionally, a challenge to the Haze Rule could not be brought in this Court. *See* 42 U.S.C. § 7607(b)(1) (nationally-applicable CAA rules may be challenged only in the D.C. Circuit); *ATK Launch Sys., Inc. v. EPA*, 651

F.3d 1194, 1197 (10th Cir. 2011) (same); *see also Env't Def. v. Duke Energy Corp.*, 549 U.S. 561, 581 (2007) (even implicit invalidations of nationally-applicable CAA regulations are limited to the D.C. Circuit). Accordingly, their belated challenges are barred.

Even if this Court considers challenges to EPA's use of the Guidelines here, EPA's use was reasonable and consistent with the CAA and its explanations in the Haze Rule and Guidelines. EPA did not err in using the Guidelines to illustrate the unreasonable and unexplained choices in Wyoming's SIP. Even if the Court finds ambiguity in the CAA, Haze Rule, or the Guidelines, the Court should defer to EPA's interpretation. EPA has reasonably interpreted that the BART Guidelines have persuasive force when determining whether other approaches to making BART determinations are reasonable. EPA promulgated the BART Guidelines in response to Congress's directive, and they represent the Agency's best articulation of how to make a reasonable BART determination. EPA's interpretation satisfies all of *Kisor*'s prerequisites for deference. *See Kisor*, 139 S. Ct. at 2416-18.[26]

PacifiCorp argues that EPA is interpreting the phrase "applicable requirements" in § 7410(k)(3) to mean its own preferences as expressed in the

[26] To the extent the Court deems this a question of statutory interpretation, EPA's interpretation of the Guidelines as helpful guidance is entitled to deference as a permissible construction of the statute where the statute is silent on the precise issue and EPA promulgated extensive technical regulations to assist states based on its own expertise.

BART Guidelines. *See* 42 U.S.C. § 7410(k)(3) (stating that EPA "shall approve such submittal as a whole if it meets all of the applicable requirements of this chapter"). PacifiCorp argues that this phrase of the CAA is unambiguous and this Court need not defer to any EPA interpretation of that phrase. *See* PacifiCorp Br. at 23-24. But EPA is not requesting and need not request deference to some interpretation of what "applicable requirements" means. The operative statutory provision is 42 U.S.C. § 7491(g)(2). That provision requires that, in determining BART a state "shall take into consideration" both "the costs of compliance" and "the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology." 42 U.S.C. § 7491(g)(2). PacifiCorp does not dispute the applicability of these statutory requirements. Given the errors in Wyoming's calculations and modeling discussed in Argument Parts II.B and C, *infra*, EPA reasonably determined that Wyoming failed to comply with these applicable statutory requirements. *See Darwin*, 815 F.3d at 537-38. EPA reasonably conducted its own analysis of these two statutory factors and concluded that it could not approve Wyoming's BART determination for Wyodak. EPA's use of the Guidelines to aid its assessment was both reasonable and permissible.

2. EPA reasonably looked to the Control Cost Manual in evaluating Wyoming's SIP.

Like the BART Guidelines, EPA appropriately used the Control Cost Manual to explain that Wyoming made significant errors in its cost calculations for

its BART determination for Wyodak. *See supra* Argument Part II.C; 79 Fed. Reg. at 5053/1. In reaching this conclusion, EPA has not treated the Control Cost Manual as binding on Wyoming. Like the BART Guidelines, the Manual is, in essence, EPA's articulation of a reasonable approach to conducting a cost analysis. *See* 40 C.F.R. pt. 51, App. Y, IV.D.4.a.5. ("The Control Cost Manual addresses most control technologies in sufficient detail for a BART analysis.").[27] The Control Cost Manual is a useful tool and it is used in a variety of contexts. It details how EPA considers costs to reasonably be calculated, and for large sources, the BART Guidelines require its use. *See, e.g.,* 40 C.F.R. pt. 51, App. Y, IV.D.4.a.5 & nn.14-15. EPA was reasonable in contrasting the Manual's approach with some of the unreasonable and unexplained costs in Wyoming's SIP.

As EPA explained in the preamble to the Haze Rule, "the Control Cost Manual provides a good reference tool for cost calculations." 70 Fed. Reg. at 39127. That said, the preamble to the Haze Rule acknowledges that other methods might be useful and they encourage states to use as supplemental information any "additional cost methods" or "elements or sources that are not addressed by the Control Cost Manual." *Id.* If a state relies on information outside the Manual, the

[27] Indeed, the BART Guidelines direct states to follow the Manual where possible (and to provide documentation for any deviation). *See* 40 C.F.R. pt. 51, App. Y, IV.D.4.a.5 (directing that, "to maintain and improve consistency, cost estimates should be based on the [Control Cost Manual], where possible").

BART Guidelines advise that the state "should include documentation for any additional information . . . used for the cost calculations, including any information supplied by vendors that affects . . . assumptions regarding purchased equipment costs, equipment life, replacement of major components, and any other element of the calculation that differs from the Control Cost Manual." 40 C.F.R. pt. 51, App. Y, IV.D.4, n.15. Like deviations from the BART Guidelines, EPA reasonably expected Wyoming to explain and provide support for its cost estimates. Wyoming failed to do so.

The rest of PacifiCorp's arguments miss the mark. PacifiCorp maintains that compliance with the Manual must be optional because the Manual was not subjected to notice-and-comment proceedings, was not published in the Federal Register, was not incorporated into the Code of Federal Regulations, and EPA has not met the specific requirements to incorporate the Manual by reference. *See* PacifiCorp Br. at 33-35. But, again, EPA has not required compliance with the Manual. It has merely used the Manual like the Guidelines—as helpful guidance or, in other words, "a good reference tool for cost calculations." 70 Fed. Reg. at 39127. PacifiCorp also argues that, in any event, EPA intended the Manual to be flexible. But PacifiCorp does not explain how EPA's well-founded critiques of Wyoming's cost analyses—explained in detail below, *see* Argument Part II.C—are insufficiently flexible, much less inflexible to the point of being arbitrary or

capricious. In short, in explaining its decision, EPA reasonably used as a reference its own how-to guide for conducting a reasonable cost analysis.

B. EPA Reasonably Found Wyoming's BART Determination for Wyodak Unreliable Due to Deficiencies in Visibility Improvement Modeling.

EPA reasonably concluded that Wyoming's visibility improvement modeling was flawed and did not reasonably consider "the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology," as required by 42 U.S.C. § 7491(g)(2) and the Haze Rule, 40 C.F.R. § 51.308(e)(1)(ii)(A). Specifically, Wyoming's visibility improvement modeling failed in two ways. First, it entirely failed to provide two types of visibility modeling required by the CAA and the Haze Rule: (a) visibility improvement from the installation of NO_X controls alone, and (b) visibility improvement achievable from the installation of SNCR. Second, EPA reasonably disapproved of Wyoming's use of two unreasonable inputs in its visibility analyses: (a) unrealistic baseline emissions, and (b) a post-control emission rate that underestimated the effectiveness of SCR. Because of these errors, EPA reasonably determined that the State failed to take into consideration the anticipated degree of improvement in visibility when making its BART determinations, running afoul of the CAA and the Haze Rule. *See* 42 U.S.C. § 7491(g)(2); 40 C.F.R. § 51.308(e)(1)(ii)(A). The

State and PacifiCorp contend the errors are harmless and attack the CALPUFF model but neither argument has merit.

1. Wyoming failed to model two types of visibility improvements required by the CAA and the Haze Rule.

EPA reasonably disapproved Wyoming's SIP because Wyoming failed to model two things required by the CAA and the Haze Rule: the visibility improvement resulting from the installation of NO_X controls alone and the visibility improvement resulting from the installation of SNCR, one of the control options Wyoming found technically feasible. These failures made it impossible for EPA to rely on Wyoming's BART determination for Wyodak and they required EPA to conduct these statutorily required analyses in Wyoming's place. *See Darwin*, 815 F.3d at 519 (upholding EPA's reliance on additional modeling to disapprove a SIP's BART determination for a 733-megawatt plant).

a. Wyoming failed to model visibility improvement from the installation of NO_X controls alone.

EPA reasonably concluded that Wyoming's failure to model visibility improvement from the installation of NO_X controls alone, separate from other pollutants, conflicted with the requirements of the CAA and the Haze Rule. Final Rule, 79 Fed. Reg. at 5109/2; 2013 Proposed Rule, 78 Fed. Reg. at 34749/2. Specifically, the Haze Rule defines BART as "an emission limitation based on the

degree of reduction achievable through the application of the best system of continuous emission reduction *for each pollutant* which is emitted by an existing stationary facility." 40 C.F.R. § 51.301 (definition of BART) (emphasis added); *see also* 40 C.F.R. § 51.308(e)(1)(ii) (requiring a BART analysis for eligible sources that emit "any air pollutant" that causes or contributes to visibility impairment in a Class I area); 40 C.F.R. § 51.309(d)(4)(vii) (requiring separate NO_X and PM BART determinations for states participating in the SO_2 BART alternative trading program).

In its visibility analysis, Wyoming combined the visibility improvement associated with each of the State's control scenarios for the three haze-forming pollutants considered (SO_2, NO_X, and particulate matter). *See* Final Rule, 79 Fed. Reg. at 5109/2. This prevented the State and EPA from determining what portion of the visibility improvement was attributable to each of the NO_X controls alone relative to a pre-control baseline. 2013 Proposed Rule, 78 Fed. Reg. at 34749/2; JA Vol. V, JA001207 Tbl.15, Wyo. Analysis for Wyodak (between the Baseline and Post-Control Scenario A for Combustion Controls, or between the Baseline and the Post-Control Scenario B for SCR and Combustion Controls, the modeled emission rates are lower for not only NO_X, but also for SO_2 and particulate matter due to "committed controls"). Put differently, Wyoming's analysis provided only information on the overall visibility benefit of the addition of SCR (after

Combustion Controls) but did not speak to the visibility improvement of each of the NO_X control options (e.g., Combustion Controls, SNCR, SCR) relative to a pre-control NO_X baseline. Because of this failure, "it was not possible for EPA, or any other party, to ascertain the visibility improvement that would result from the installation of the various NO_X control options" alone. Final Rule, 79 Fed. Reg. at 5164/2. And without holding other variables constant, EPA or any other party could not reasonably make a NO_X-specific BART determination. Given that the CAA and the Haze Rule require a BART determination for each pollutant based on a consideration of the visibility improvement from the use of pollutant-specific technology, EPA reasonably concluded that Wyoming's visibility analysis was deficient. *See* 40 C.F.R. § 51.308(e)(1)(ii)(A).

b. Wyoming failed to model visibility improvement achievable through SNCR.

EPA also reasonably concluded that Wyoming failed to "fulfill the basic statutory requirement to consider the visibility improvement of each of the NO_X control options" it identified as "technically feasible." 79 Fed. Reg. at 5109/2. Namely, Wyoming failed to provide visibility improvement modeling for SNCR, even though it found SNCR to be a technically feasible and cost-effective NO_X control. *See* 78 Fed. Reg. at 34749/2; JA Vol. V, JA001186, JA001190, Wyo. Analysis for Wyodak. This was inconsistent with the CAA and Haze Rule requirements that states consider "the degree of improvement in visibility which

may reasonably be anticipated to result from the use of such technology." Final Rule, 79 Fed. Reg. at 5109/2 (citing 42 U.S.C. § 7491(g)(2)); 2013 Proposed Rule, 78 Fed. Reg. at 34749/2; 40 C.F.R. § 51.308(e)(1)(ii)(A)).

Wyoming argues that its approach was consistent with EPA's 2004 statement in the preamble to the proposed Haze Rule that it is not "necessary that States conduct detailed evaluations of control measures that are very unlikely to be selected as BART." WY Br. at 52 (quoting 69 Fed. Reg. 25184, 25197 (May 5, 2004)). But Wyoming omitted EPA's further clarification that, in doing so, States should adopt "dollar/ton screening levels as criteria for rejecting control options" and specified that "the overall BART decision must be made in consideration of all of the statutory factors." 69 Fed. Reg. at 25197. Here, Wyoming provided no such analysis other than a blanket assertion that SNCR is rarely cost effective and that any visibility improvement would be "marginal." JA Vol. V, JA001187. At the same time, Wyoming explicitly acknowledged that SNCR *was* cost effective for the Units in question, but chose not to model it based on speculation that SNCR would not provide sufficient visibility improvement. *Id.* JA001187, JA001190. In fact, Wyoming estimated that SNCR would achieve a 20% reduction of NO_X which can hardly be construed as "marginal." *Id.* JA001187.

Wyoming also argues that EPA stated that SNCR was generally not cost effective when EPA promulgated the BART Guidelines. WY Br. at 51. Again,

Wyoming ignores important context. EPA stated in the Guidelines that it was not basing any of the 2005 presumptive NO_X limits on SNCR because EPA had determined that SNCR was not cost effective across all Units within the broad categories of Units considered at that time. 70 Fed. Reg. 39134/2-3. EPA's 2005 statement did not apply to source-specific BART analyses. *Id.* at 39134/3 (stating that "EPA's analysis indicates that the large majority of the units can meet these presumptive limits at relatively low costs," and this presumption "may not be appropriate for all sources"). Indeed, for some Wyoming Units, including Wyodak, EPA had proposed the addition of SNCR as BART. 2013 Proposed Rule, 78 Fed. Reg. at 34780/1, 34785/1; 2012 Proposed Rule, 77 Fed. Reg. at 33051/3, 33052/2, 33055/2. And Wyoming even concluded SNCR is a feasible and cost-effective control technology for Wyodak. JA Vol. V, JA001187, JA001190.

Wyoming and PacifiCorp point out that EPA did not ultimately select SNCR as BART for any Unit. But that decision was reached only after EPA conducted a full visibility improvement (and cost) analysis for SNCR. The need to model all feasible control technologies is simple: the CAA requires the selection of the best available control technology after considering the five factors, including "the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology." 42 U.S.C. § 7491(g)(2); 40 C.F.R. § 51.308(e)(1)(ii)(A); *see also* 40 C.F.R. pt. 51, App. Y, IV.D (explaining the five

basic steps of a BART analysis as: (1) identify all available retrofit control technologies, (2) eliminate technically infeasible options, (3) evaluate control effectiveness of remaining control technologies, (4) evaluate impacts and document the results, and (5) evaluate visibility impacts). SNCR was a feasible technology and valid potential option that Wyoming failed to model. Wyoming could not reasonably reject SNCR until it had modeled its visibility benefit and compared this benefit and related costs to alternative controls. Thus, EPA reasonably concluded that Wyoming's BART analysis for Wyodak failed to meet the requirements of the CAA and the Haze Rule.

2. EPA reasonably disapproved Wyoming's baseline and post-control emission rates.

In the modeling that Wyoming did conduct, EPA reasonably rejected two of the inputs the State used: its baseline (or the "pre-control scenario") emission rate and its post-control emission rates. An accurate assessment of the effectiveness of a control in removing NO_X is a key component of a BART determination. For Wyodak, Wyoming's calculation of baseline emissions skewed its analysis, making it impossible to compare to other BART selections, and its post-control emission rates underestimated the effectiveness of SCR. 2013 Proposed Rule, 78 Fed. Reg. at 34749/3; Final Rule, 79 Fed. Reg. at 5167/1-2. EPA reasonably determined that these two inputs made Wyoming's BART determination unreliable.

a. Wyoming's baseline emissions were unrealistic and prevented apples-to-apples comparisons.

Most power plants have continuous emission monitors that allow for accurate estimates of actual annual NO_X emissions. But Wyoming accepted a different approach from PacifiCorp which did not rely on data from monitors. Instead, PacifiCorp calculated baseline emissions for Wyodak and other sources by using *allowable* "permit limits and the maximum rated heat input," an approach that is not representative of *actual* emissions during the baseline period. 2013 Proposed Rule, 78 Fed. Reg. at 34750/1 (emphasis added). PacifiCorp calculated post-control emission rates similarly. 78 Fed. Reg. at 34750; 79 Fed. Reg. at 5123/2. This led to "both an underestimation, and in some cases, overestimation of visibility impacts." 79 Fed. Reg. at 5164/2.

Wyoming and PacifiCorp contend that EPA disapproved the BART determination for Wyodak only because Wyoming used a "formula" different from the one in the BART Guidelines. WY Br. at 45. The Guidelines advise states to use the "24-hour average actual emission rate from the highest emitting day of the meteorological period modeled" for baseline emissions and to express post-control emission rate as a percentage of the pre-control baselines. 2013 Proposed Rule, 78 Fed. Reg. at 34749/3-50/1. But PacifiCorp and the State ignore the purpose of using actual baseline emissions: to accurately produce a realistic and consistent comparisons of anticipated emission reductions before and after alternative control

options. *Id.* at 34749/3-50/1; *see also* 40 C.F.R. pt. 51, App. Y, IV.D.4.d.1 ("In general, for the existing sources subject to BART, you will estimate the anticipated annual emissions based upon actual emissions from a baseline period."). This cannot be done if the past maximum allowable emissions have no connection with the past actual emissions. *See Columbia Falls Aluminum Co. v. EPA*, 139 F.3d 914, 923 (D.C. Cir. 1998) (a model is arbitrary if it "bears no rational relationship to the reality it purports to represent"). Wyoming's baselines instead take into account emissions that could be allowed as a regulatory matter, but that did not and would not necessarily occur. Moreover, EPA had to remodel pre- and post-control emissions at Wyodak with revised, comparable baseline emissions, as relying on Wyoming's baseline emissions would have precluded an apples-to-apples comparison of BART selections at similar sources within the state. *See* 2013 Proposed Rule, 78 Fed. Reg. at 34749.

b. Wyoming's post-control emission rate underestimated the effectiveness of SCR.

Although PacifiCorp's original BART application stated that SCR could achieve NO_X emissions of 0.05 lb/MMBtu annually, Wyoming assumed that rate would be higher at 0.07 lb/MMBtu annually. Final Rule, 79 Fed. Reg. at 5167/1-2. Wyoming's assumption unreasonably underestimated the emission reductions that SCR could achieve at Wyodak, thereby skewing its visibility analysis (and cost analysis, as discussed below in Argument Part II.C.1) to underestimate SCR's

effectiveness (i.e., control efficiency). This is because SCR's control efficiency is applied to the modeled pre-control emission rate to arrive at the modeled post-control emission rate. *See* 40 C.F.R. pt. 51, App. Y, IV.D.5.

As EPA explained, Wyoming's assumption was not supported by facts in the record. Specifically, PacifiCorp submitted a budgetary price estimate showing an SCR emission rate of 0.04 lb/MMBtu for three Units.[28] Final Rule, 79 Fed. Reg. at 5167/1 (citing a letter from PacifiCorp's consultant). Similarly, Basin Electric submitted a report showing an annual emission rate of 0.05 lb/MMbtu for its Units. *Id.* EPA also looked to its Clean Air Markets Division database[29] that included a number of Units "retrofitted with SCR which are achieving actual emissions of 0.05 lb/MMBtu or less on an annual basis." 79 Fed. Reg. at 5167/1. Finally, Wyoming, Wyoming submitted no evidence that SCR at Wyodak could not achieve an actual annual emission rate of 0.05 lb/MMBtu. Thus, EPA reasonably concluded that Wyoming's selection of an annual emission rate of 0.07 lb/MMBtu unreasonably underestimated the effectiveness of SCR.

---

[28] Although not specified, EPA assumed this rate was an annual rate. *See* Final Rule, 79 Fed. Reg. at 5167/1.

[29] That database includes historical emission information reported by power plants across the country and is publicly available. *See* EPA, *Clean Air Markets: Data and Tools* (last updated Jan. 6, 2023), https://www.epa.gov/airmarkets/data-and-tools.

Wyoming argues that EPA advised the State to use an annual emission rate of 0.07 lb/MMBtu in its analyses of SCR and has "reversed course to Wyoming's detriment" by insisting in the Final Rule that the State should have used 0.05 lb/MMBtu. WY Br. at 49 (citing 2013 Proposed Rule, 78 Fed. Reg. at 34748). The State, however, mischaracterizes EPA's 2008 Comment, which did not address emission *rates*, but focused on emission *limits*. The annual emission *rate* is the appropriate input for analyzing control efficiency, while the 30-day rolling average emission *limit* is set for compliance purposes. *See* 40 C.F.R. pt. 51, App. Y, V. As EPA explained in the Final Rule, while an emission *rate* of 0.05 lb/MMBtu annually is achievable, a 30-day rolling average emission *limit* of 0.07 lb/MMBtu is appropriate. *See* 79 Fed. Reg. at 5167. EPA's Comment explained the importance of specifying a 30-day average for emission *limits* and encouraged Wyoming to make BART determinations requiring SCR and 0.07 lb/MMBtu "or lower NO_X *limits* at as many sources as is cost effective." JA Vol. VI, JA001391-92, EPA 2008 Comment, Enclosure ¶¶ 1, 4 (citing 70 Fed. Reg. 39172) (emphasis added). Thus, EPA's Comment references emission *limits* used for compliance rather than emission *rates* used in the BART analysis itself. Additionally, EPA's subsequent comment to the State did not designate a specific emission *rate* but provided examples to show that an annual emission rate of 0.05 lb/MMBtu or below could be achieved. JA Vol. VI, JA001393-1402, EPA 2009 Comment.

Wyoming's current claim that EPA advised the State to select an annual emission *rate* of 0.07 lb/MMBtu—as opposed to a *limit*—is thus incorrect.

In addition to being contrary to the record evidence and therefore unreasonable under the CAA and Haze Rule, the SCR rate that Wyoming used for purposes of calculating effectiveness also departs from the Guidelines, i.e., EPA's articulation of a *per se* reasonable approach to making BART determinations. 79 Fed. Reg. at 5167/2. The BART Guidelines specify that, in evaluating a control technology, the State must "take into account the most stringent emission control level that the technology is capable of achieving." 40 C.F.R. pt. 51, App. Y, IV.D.3 (evaluating control technologies). To identify this level, the State "should consider recent regulatory decisions and performance data (e.g., manufacturer's data, engineering estimates and the experience of other sources)." *Id.* Rather than using "the most stringent emission control level" that can be obtained, 40 C.F.R. pt. 51, App. Y, IV.D.3, Wyoming instead considered "the BART-determined permit limit to be equivalent to the control effectiveness of a control technology." JA Vol. II, JA000410 (Wyoming Regional Haze SIP). But permit limits are always set higher than the emission rate that a control can achieve. JA Vol. II, JA000411-12 (Wyoming Regional Haze SIP); *see* 79 Fed. Reg. at 5167. The State thus erred in equating "the most stringent emission control level" of control that can be obtained with a higher permit limit. 40 C.F.R. pt. 51, App. Y, IV.D.3.

3. EPA's use of the CALPUFF Model is reasonable.

PacifiCorp contends that EPA failed to consider the limits of the CALPUFF model in disapproving Wyoming's BART determination for Wyodak, PacifiCorp Br. at 42-48, but this argument is without merit. As an initial matter, the Guidelines recommend the use of "CALPUFF, or other appropriate dispersion model to determine the visibility improvement expected at a Class I area from the potential BART control technology applied to the source." 40 C.F.R. pt. 51, App. Y, IV.D.5. In the preamble to the Haze Rule, EPA concluded that, for purposes of the Rule's BART provisions, "CALPUFF is sufficiently reliable to inform the decision making process." 70 Fed. Reg. at 39123.[30] To EPA's knowledge, states and EPA used CALPUFF to model visibility improvement for the vast majority of other source-specific BART determinations nationwide. Indeed, PacifiCorp conducted modeling using CALPUFF, pursuant to Wyoming's modeling protocol, which Wyoming adopted for its SIP. *See* Wyoming Br. at 18 (citing JA Vol. V, JA001165-79).

To be sure, as PacifiCorp points out, the Guidelines recommend use of "the 24-hour average actual emission rate from the highest emitting day of the meteorological period modeled (for the pre-control scenario)" in the model. 40

---

[30] To the extent PacifiCorp is challenging the Haze Rule's or the Guidelines' recommendation to use CALPUFF, that argument is time-barred. *See* 42 U.S.C. 7607(b); *supra* Argument Part II.A.1.c at 63-64.

C.F.R. pt. 51, App. Y, IV.D.5. But contrary to PacifiCorp's assertion, *see* PacifiCorp Br. at 42, this approach reduces the possibility of overestimation of visibility benefits by accounting for unusual conditions or any overprediction bias in the model. 79 Fed. Reg. at 5114/1, 5119. Because the Guidelines' method compares the 98th percentile of pre- and post-control emission scenarios, and the 98th percentile reflects the 8th highest value in any year,[31] this approach already eliminates seven days per year "to account for short-term events, unusual meteorological conditions, and any over-prediction bias in the model." Final Rule, 79 Fed. Reg. at 5119; *see also id.* at 5114-15. In other words, this use of the 8th highest value helps ensure that the model does not overestimate visibility impacts. *See* 79 Fed. Reg. at 5119. PacifiCorp argues that this is not good enough to address problems it sees with CALPUFF's margin of error or unexplained "other inaccuracies," but never explains why. *See* PacifiCorp Br. at 45.

EPA noted that this was the same approach Wyoming used in identifying subject-to-BART sources, where a source is exempt from BART if the modeled 98th percentile change is less than 0.5 deciviews at all Class I areas for each year modeled. Final Rule, 79 Fed. Reg. at 5119/3; *see also* 78 Fed. Reg. 34746/3 (noting that Wyoming used the CALPUFF model). As it has done with other SIPs

[31] With 365 days in a year, the 98th percentile is 7.3, which means the model will be based on the 8th highest day.

and FIPs, EPA therefore found it reasonable to use the same approach when considering the visibility improvements associated with control options. Final Rule, 79 Fed. Reg. at 5119. Further, PacifiCorp does not explain how EPA should have accounted for these alleged limitations of the CALPUFF model, outside of perhaps blindly accepting the State's submission wholesale. It is specious to challenge EPA's use of the CALPUFF model when the State and PacifiCorp used the same model. *See* JA Vol. V, JA001190-1211 Wyo. Analysis for Wyodak.

PacifiCorp's reliance on *National Parks Conservation Association v. EPA*, 788 F.3d 1134 (9th Cir. 2015) is misplaced. The Ninth Circuit did not hold that EPA could not rely on CALPUFF. Rather, the court found that EPA committed a procedural error when it did not "meaningfully address" in its rulemaking, a comment questioning whether the anticipated visibility improvement in that case was too insignificant for CALPUFF to measure given CALPUFF's margin of error. *Id.* at 1146-47. The Ninth Circuit noted that the petitioner was not asking EPA to "discontinue application of CALPUFF below the one-deciview perceptibility threshold"—as PacifiCorp does here, *see* PacifiCorp Br. at 47—but was instead asking how the model could explain "EPA's conclusion that additional measures will lead to reasonable anticipation of visibility improvement in this case, when . . . an improvement of 0.085 deciview is 'beyond the CALPUFF model's ability to predict with any confidence.'" *National Parks Conservation Association*,

788 F.3d at 1146. The Fifth Circuit, when presented with a complaint similar to PacifiCorp's, distinguished *National Parks Conservation Association* on its procedural grounds and explained that, in that instance, EPA provided a "fulsome" explanation. *See Sierra Club v. EPA*, 939 F.3d 649, 685-86 (5th Cir. 2019). This Court should similarly distinguish *National Parks Conservation Association.*

Here, PacifiCorp points to its generalized comments critiquing the CALPUFF model, *see* JA Vol. VII, JA001838-39, JA001857-58, to argue that EPA must "consider the uncertainty" of the modeling results and offer a proper explanation as to whether "an imperceptible 0.40" deciviews in visibility improvement—more than four times that at issue in *National Parks Conservation Association*—"was valid or just 'noise' from the uncertainty of the model." *See* PacifiCorp Br. at 45, 47.[32] For these kinds of generalized complaints about CALPUFF, EPA provided a fulsome response. First, EPA explained that the model was sufficiently reliable to inform the BART decision-making process, but it recognized "uncertainties in the science of the CALPUFF modeling system" and

[32] PacifiCorp's comments pointed out the alleged visibility benefit of installing *SNCR* (not SCR) at Wyodak—0.12 deciviews at an incremental cost of $3,725/ton—seemed tremendously expensive for an "inconsequential" visibility improvement that "likely" fell within CALPUFF's margin of error. *See* JA Vol. VII, JA001860. But PacifiCorp has waived any challenge to EPA's response to this comment by failing to raise it in its opening brief, and PacifiCorp's procedural challenge there would be irrelevant to EPA's ultimate selection of SCR as BART for Wyodak.

used a conservative 98th percentile value model in response. *See* 79 Fed. Reg. at 5114; *see also id.* at 5121. Second, EPA explained that it "considers model changes on the order of tenths of a deciview to be useful for informing the BART decision process, consistent with BART modeling performed by other EPA regions and states." *Id.* at 5117. Third, EPA explained that, while the visibility benefits at Wyodak are less than what is generally considered perceptible to the human eye, "they are not so low as to preclude selection of the associated controls without any consideration of the remaining BART factors." *Id.* at 5122.

Further, using "traditional approach" modeling will not be considered "*per se* 'arbitrary and capricious'" without a strong showing of unreasonableness. *Gen. Chem. Corp. v. United States*, 817 F.2d 844, 849 (D.C. Cir. 1987). That principle applies even more strongly here, where the use of CALPUFF is not only "traditional" but also is included in the BART Guidelines and the preamble to the Haze Rule, *see* 70 Fed. Reg. at 39107-08, and it has consistently been applied to other SIPs and FIPs. EPA's visibility modeling—which PacifiCorp and Wyoming adopted without attempting to rely on another model—need not be perfect, but only reasonable. *See WildEarth Guardians*, 770 F.3d at 931 (citing *San Luis & Delta-Mendota Water Auth. v. Jewell*, 747 F.3d 581, 620-21 (9th Cir. 2014) (holding that use of an imperfect analysis is not arbitrary or capricious)); *Appalachian Power Co. v. EPA*, 249 F.3d 1032, 1052 (D.C. Cir. 2001) ("That a

model is limited or imperfect is not, in itself, a reason to remand agency decisions based upon it."). And EPA is not required to justify its general selection of CALPUFF every time it is used. *See Chem. Mfrs. Ass'n v. EPA*, 28 F.3d 1259, 1265 (D.C. Cir. 1994); *Int'l Fabricare Inst. v. EPA*, 972 F.2d 384, 391 (D.C. Cir. 1992) (finding that the duty to reevaluate an adopted model "cannot be triggered by the submission of comments consisting of little more than assertions that in the opinions of the commenters the agency got it wrong"). Here, EPA reasonably relied on the Guidelines' recommended modeling approach and thoroughly explained why PacifiCorp's objections to it were without merit.

C. EPA Reasonably Found Wyoming's BART Determination for Wyodak Unreliable Due to Errors in Calculating Costs of Compliance.

EPA also reasonably determined that Wyoming failed to consider the costs of compliance in determining BART for Wyodak because the State's cost calculations were inconsistent, illogical, incomplete, and otherwise unreliable. Without justification, Wyoming's cost calculations (1) like its visibility analysis, unreasonably relied on baseline values based on allowable rather than actual emissions and underestimated the ability of SCR to reduce NO_X; and (2) inflated costs by overestimating capital costs and including allowance for funds used during construction and owner costs. These errors meant that Wyoming's BART

determination for Wyodak did not comply with the CAA and Haze Rule requirements to determine BART through a reasonable five-factor analysis.

1. Wyoming's cost calculations underestimated the effectiveness of SCR and relied on unreasonable baseline emissions.

Like its visibility analysis, Wyoming's cost-effectiveness calculations were also impacted by Wyoming's use of unreasonable baseline emissions and a post-control emission rate that underestimated the effectiveness of SCR. As explained above, Wyoming's baseline and post-control emission estimates were calculated based on allowable (permitted and anticipated) emission *limits* and maximum rated heat input, instead of actual and achievable emission *rates*. *See supra* Argument Part II.B.2. In addition, for purposes of its cost analysis, Wyoming used 7,884 operating hours as an input for estimating annual emissions. *See* 78 Fed. Reg. at 34749/1; 79 Fed. Reg. at 5155/2, 5167/2. Similar to visibility comparisons, the purpose of using actual and achievable emission rates in cost calculations is to accurately compare actual emissions before controls with anticipated emissions from alternative control options, so that the cost effectiveness of each control can be compared on a dollar/ton basis. 2013 Proposed Rule, 78 Fed. Reg. at 34749/3-50/1. That is why the BART Guidelines describe an approach to estimating the cost effectiveness of controls that relies on actual annual emissions during the baseline period. *See* 40 C.F.R. pt. 51, App. Y, IV.D.4.d.

As explained above, Wyoming's use of an emission limit of 0.07 lb/MMBtu for SCR unreasonably underestimated the emission reductions that SCR could achieve at Wyodak. *See* Argument Part II.B.2.b. For the cost analysis, this resulted in Wyoming underestimating SCR's cost effectiveness, measured in dollars/ton of emissions reduced. As explained above, *see* Argument Part II.B.2.b, Wyoming's assumption was not supported by the record, nor is it consistent with the Guidelines. *See Darwin*, 815 F.3d at 534-35 (upholding EPA's disapproval of a SIP's cost analysis where failures to comply with the Guidelines led EPA to "reasonably conclude" that the state's analysis was "inadequate"). The Guidelines enable consistent, apples-to-apples comparisons between cost calculations for large and small Units, which guides a fair comparison. *See Darwin*, 815 F.3d at 540-41. Without accurate cost-effectiveness values, Wyoming could not reasonably consider the cost of controls as required under the CAA and Haze Rule. Thus, EPA reasonably concluded that Wyoming's assessment of the cost of controls factor was unreliable.

2. Wyoming's cost calculations were inflated and unreliable due to the inclusion of unexplained and atypical costs, as well as overestimated capital costs.

EPA reasonably disapproved of three other inputs in Wyoming's cost calculations: allowances for funds used during construction, owner's costs, and

overestimated capital costs. Because Wyoming inflated its costs in multiple ways for Wyodak, EPA reasonably found Wyoming's cost calculations unreliable.

a. Wyoming irrationally included allowances for funds used during construction and owner's costs in its cost calculations.

Wyoming included an allowance for funds used during construction ("AFUDC") and owner's costs in its cost calculations, both without providing supporting documentation such as vendor estimates or bids to explain why their inclusion was reasonable. 2013 Proposed Rule, 78 Fed. Reg. at 34749/1; *Oklahoma*, 723 F.3d at 1212 (recognizing that inclusion of AFUDC is inconsistent with the Manual and is grounds for disapproval). While AFUDC may be included in costs reported by a regulated utility to the regulatory body that sets its electric rates, the inclusion of AFUDC is not appropriate in considering costs in the BART analysis. As the Ninth Circuit explained:

> Consideration of AFUDC would not further this inquiry, as AFUDC is ultimately reflective of the implementing entity's financial and logistical situations, grounded in past decisions and in the company's financial policies and attitudes, not of the hard costs of the equipment and construction, which should be consistent across sites. While AFUDC and similar concepts are relevant for sales and ratemaking, including them would undermine the sort of "apples-to-apples" comparison that EPA asserts is necessary as part—but only part—of assessing the control options.

Darwin, 815 F.3d at 540-41. The Control Cost Manual uses an "overnight" cost method for all sources to aid these kinds of "apples-to-apples" comparisons. *See*

supra at 65-67. Wyoming never explains why it failed to provide documentation supporting its inclusion of AFUDC and owners' costs, or why it deviated from the standard practice of calculating costs in the BART Guidelines and Control Cost Manual. This standard method is valuable, as it allows states and EPA to easily compare costs at similar facilities. *See Oklahoma*, 723 F.3d at 1213 ("The guidelines say that states should follow the manual's methodology so that projects can be more easily compared."). In sum, these unjustified inclusions in Wyoming's cost calculations precluded a reasonable comparison of control options at Wyodak and similar Units. *See* Final Rule, 79 Fed. Reg. at 5156/3.

b. Wyoming overestimated capital costs.

Wyoming relied heavily on capital costs for rejecting SCR as BART, *see* JA Vol. V, JA001214, Wyo. Analysis for Wyodak, yet the State's estimates are unsupported by the administrative record because they exceeded the costs associated with actual SCR installations. 2013 Proposed Rule, 78 Fed. Reg. at 34748/3 (citing JA Vol. VI, JA001569 Tbl.1, "Staudt Memo"). EPA identified five recent industry studies that reported capital costs of SCR ranging from $79/kilowatts to $316/kilowatts in 2010 dollars, substantially lower than Wyoming's estimate of $415/kilowatts to $531/kilowatts. *Id*.

PacifiCorp contends that its numbers reflect "real world" cost information, *see* PacifiCorp Br. at 41-42, but PacifiCorp failed to explain which elements of its

costs analyses for Wyodak, if any, were based on site-specific information. Final Rule, 79 Fed. Reg. at 5156; *see Oklahoma*, 723 F.3d at 1212-13 (discussing a similar lack of documentation of costs). PacifiCorp claims it relied on its consultant's internal proprietary databases, but never explained how those databases could reasonably replace or compare to site-specific vendor bids.[33] 79 Fed. Reg. at 5156; *see also* JA Vol. V, JA001096. PacifiCorp's reliance on the competitive bids for Jim Bridger as evidence of the "real world" cost of SCR, *see* PacifiCorp Br. at 41-42, is improper because such bids likely included additional costs excluded by the Control Cost Manual, and, in any event, PacifiCorp never provided EPA information regarding the contents of those bids to make a fair comparison. 79 Fed. Reg. at 5155/1. *See also Oklahoma*, 723 F.3d at 1213. Because capital costs serve as the basis for calculating average cost effectiveness, Wyoming's inflated and unsupported numbers prevented the State from conducting a reasonable cost analysis as required by the CAA and Haze Rule.

[33] By contrast, PacifiCorp provided EPA with vendor estimates for SCR costs for Naughton Units 1 and 2, as well as Dave Johnston Unit 2. *See* JA Vol. VIII, JA001996-2003 (Letter from PacifiCorp to EPA forwarding letter from Babcock & Wilcox).

D. Under These Circumstances, Wyoming Could Not Reasonably Weigh the BART Factors, and EPA's Consideration of the Factors Was Reasonable.

Having determined that Wyoming's analysis of two of five statutory factors was inconsistent with the CAA and Haze Rule, EPA then undertook its own analysis of the two factors. EPA did so to determine whether it might nonetheless consider the State's BART determination approvable (as EPA ultimately did for Naughton Units 1 and 2). EPA's revised cost analyses and visibility modeling for Wyodak differ significantly from Wyoming's, however, and show the reasonableness of EPA's disapproval of Wyoming's BART determination for Wyodak.

PacifiCorp contends that EPA's disapproval is arbitrary because EPA's final cost estimates and visibility improvement calculation were similar to the State's. In making this argument, PacifiCorp selectively relies on Wyoming's and EPA's estimates of average cost effectiveness of SCR. PacifiCorp Br. at 36-39. Despite recognizing that the appropriate metrics for assessing costs of compliance are average and incremental cost effectiveness, Wyoming, however, relied on the total capital and annual costs of SCR in rejecting the more stringent control technology. JA Vol. V, JA001190, JA001214-15, Wyo. Analysis for Wyodak; 2013 Proposed Rule, 78 Fed. Reg. at 34748, 34784-85. But Wyoming's estimated "bang for the buck" for each control option is skewed where capital and annual operating costs

are considered without accounting for varying estimates of SCR's tons of emissions reduced.[34] For this reason, Wyoming's and EPA's estimates of the "costs of compliance" differ significantly. Wyoming's 2009 estimate of the annual cost of SCR was 25% more than EPA's 2014 annual estimate for that technology. *Compare* JA Vol. V, JA001189, Wyo. Analysis for Wyodak, *with* Final Rule, 79 Fed. Reg. at 5044.

On top of that, EPA's final cost estimates were calculated in 2013 dollars, and incorporated new, updated line-item costs from PacifiCorp. JA Vol. VIII, JA002114, JA002119-20, Andover Report. Wyoming's cost estimates, on the other hand, were calculated in pre-2008 dollars. JA Vol. V, JA001189, Wyo. Analysis for Wyodak. If Wyoming's cost estimates were adjusted to account for inflation, the difference between the cost estimates would be even more apparent. Even without such an adjustment, however, EPA's cost calculations for SCR ($4,036/ton average cost effectiveness and $6,233/ton incremental cost effectiveness) were lower than Wyoming's calculations ($4,252/ton average cost effectiveness and $8,147/ton incremental cost effectiveness).[35] *Compare* JA Vol. V, JA001190,

[34] Wyoming's consideration of capital and annual operating costs in this manner is akin to having a goal of buying a fuel-efficient vehicle but rejecting a hybrid vehicle due to the sticker price without regard to how much money and fuel is saved over the useful life of the vehicle.

[35] PacifiCorp contends that EPA approved an Oregon SIP submission in spite of supposedly similar cost differences, but this comparison is lacking. *See* PacifiCorp Br. at 37 n.16 (citing 76 Fed. Reg. 38997, 39000 (July 5, 2011)). As EPA

JA001215 *with* Table 1, *supra* at 34. In any event, PacifiCorp ignores that Wyoming considered its estimates of SCR's average and incremental cost effectiveness to be reasonable, *see* JA Vol. V, JA001190, Wyo. Analysis for Wyodak, but rejected SCR based on unreasonable capital and operating costs. *Id.* JA001214.

Thus, regardless of any superficial similarities between Wyoming's and EPA's calculations of cost effectiveness, Wyoming's assessment of costs of compliance was unreasonable because it gave total capital costs controlling weight. *Id.* Neither the State nor PacifiCorp offers any defense in support of doing otherwise. Simply put, capital and annual operating costs cannot be examined in a vacuum. These costs can only be useful when considered in relation to the level of emission reduction. The Guidelines warn against considering large capital costs when cost effectiveness is reasonable and visibility improvement is significant for a certain control, as is the case here. *Id.* at IV.D.4.g. The cost effectiveness metric allows for costs to be reasonably compared across different sizes and types of sources. This is why the BART Guidelines instruct that consideration of the costs

---

explained, although "consistency with similar determinations is one hallmark of reasonableness, the BART determinations are very fact-specific and cannot be easily compared across states. . . . [and] although one factor (such as visibility improvement or costs of compliance) may be similar for a unit in another state, each factor must be weighed in the context of the other." Final Rule, 79 Fed. Reg. at 5091/2. Furthermore, Oregon's SIP is distinct because the state was requiring a Unit to cease burning coal by 2020, shortening its remaining useful life such that SCR would have only operated for four years or less. 76 Fed. Reg. at 39000.

of compliance factor should include average and incremental cost effectiveness. 40 C.F.R. pt. 51, App. Y, IV.D.4.a.2 (emphasizing the need to compare "costs of the same controls applied to similar sources"). By essentially equating total capital and operating costs with costs of compliance, Wyoming did not reasonably weigh the five statutory factors as applied to Wyodak, and thus EPA's disapproval should be upheld.

E. EPA Was Not Required to Approve Wyoming's Determination for Wyodak Simply Because It Met the 2005 Presumptive Emission Limits.

At the same time that Wyoming and PacifiCorp argue that the Guidelines do not apply to Wyodak, they also argue that the presumptive limits in the Guidelines absolved Wyoming of having to conduct a reasonable five-factor BART analysis. *See* WY Br. at 30-41; PacifiCorp Br. at 27 n.14. Specifically, they argue that EPA had no authority to disapprove Wyoming's BART determinations, notwithstanding the errors EPA found in Wyoming's analysis of the five factors, because Wyoming's BART determinations were at least as stringent as the presumptive limits set out in the BART Guidelines. But that interpretation of the BART Guidelines would contravene the CAA and the Haze Rule—neither of which qualifies the applicability of the five BART factors—and it is unsupported by relevant case law.

The plain language, structure, purpose, and history of the 2005 presumptive limits make clear that they are intended to serve as a floor for BART determinations—not a bar over which the five statutory factors can be ignored. As explained below, the Haze Rule and Guidelines are clear on this point. But, should this Court disagree and find the regulations ambiguous, EPA has reasonably interpreted the presumptive limits in the BART Guidelines as setting "a floor, not a ceiling, for BART" that ensures "that states aim to achieve, at a minimum, the level of emissions reduction that was available and cost-effective at the time the BART Guidelines were adopted." Final Rule, 79 Fed. Reg. at 5097/1. That interpretation is entitled to deference under *Kisor*.

1. The CAA and the Haze Rule require a five-factor BART analysis regardless of the presumptive limits.

As described above, the CAA and the Haze Rule require states to reasonably consider the five statutory factors when determining source-specific BART emission limits. 42 U.S.C. § 7491(g)(2); *see also* 40 C.F.R. § 51.308(e)(1)(ii)(A). EPA has consistently maintained that a demonstration of compliance with this statutory and regulatory requirement is an essential part of a state's BART determination. *See, e.g.*, 69 Fed. Reg. 25184, 25185, 25189, 25196 (May 5, 2004) (proposing the presumptive limits); 70 Fed. Reg. at 39105, 39126-27, 39158 (promulgating the final presumptive limits); 2012 Proposed Rule, 77 Fed. Reg. at 33031; 2013 Proposed Rule, 78 Fed. Reg. at 34773; Final Rule, 79 Fed. Reg. at

5096-97. Neither the CAA, the Haze Rule, nor the BART Guidelines allow states to avoid conducting a five-factor analysis simply by relying on a presumptive emission limit that EPA intended and has consistently interpreted as a floor against which states' five-factor BART determinations can be assessed.

2. The regulation is clear that the presumptive limits are a floor for BART determinations.

a. The plain language of the CAA and the regulation shows that the presumptive limits do not substitute for a five-factor BART analysis.

Contrary to Wyoming's argument, WY Br. at 32-35, the BART Guidelines do not qualify the applicability of the five-factor analysis, which applies to "each source subject to BART." 40 C.F.R. pt. 51, App. Y, I.E.2; *see also* 70 Fed. Reg. at 39158/1.[36] The Guidelines clearly instruct SIPs to require relevant sources to meet the presumptive NO_X emission limits, "*unless you determine that an alternative control level is justified based on consideration of the statutory factors*." *See* 40 C.F.R. pt. 51, App. Y, IV.E.5 (emphasis added). The BART Guidelines repeatedly remind states that an alternative BART determination may be justified once the five statutory factors have been considered. *See id.* ("*You may determine* that an alternative control level is appropriate *based on a careful consideration of the*

[36] Though not applicable here, a limited exception is when a source has, or commits to, the most stringent BART controls available. *See* 70 Fed. Reg. at 39165/1.

statutory factors. . . . As with the other presumptive limits established in this guideline, *you may determine* that an alternative level of control is appropriate *based on your consideration of the relevant statutory factors*.") (emphases added). Nowhere do the BART Guidelines state that the presumptive limits "are BART" or that states may avoid the five-factor analysis simply by determining BART consistent with the presumptive limits. *See generally id.*

While the bulk of the Guidelines describe the five-step BART analysis, only the final subsections establish the presumptive limits. Had the Agency intended to exempt individual Units from the greater part of the BART Guidelines, it could have said so. Nothing in the BART Guidelines states that Units that meet the presumptive limits need not perform the full five-factor analysis described in the preceding sections. By contrast, EPA makes explicit exemptions elsewhere in the BART Guidelines. *See, e.g.*, 40 C.F.R. pt. 51, App. Y, IV.C. (stating that sources subject to certain standards may "streamline" the BART analysis); *id*. at IV.D.1.9 (specifying that sources already operating the "most stringent controls available" may "skip" the remaining steps of the BART analysis). Under Wyoming's reading, Units for which the BART Guidelines are mandatory would be at liberty to ignore the majority of the Guidelines as long as they installed Combustion Controls—the least stringent control option available. *See id.* at I.H.; 42 U.S.C. § 7491(b) (last sentence); *see also* 40 C.F.R. § 51.308(e)(1)(ii)(B).

Instead, after providing detailed instructions for each step of the five-factor analysis, *see* 40 C.F.R. pt. 51, App. Y, IV.D, the BART Guidelines provide *presumptive* emission limits. *See id.* at IV.E. With respect to the NO_X presumptive limits, the BART Guidelines instruct that States "*should establish specific numerical limits* for NO_X control for each BART determination." *See* 40 C.F.R. pt. 51, App. Y, IV.E.5 (emphasis added). For power plants with generating capacity of 750 megawatts or more currently using SCR or SNCR for part of the year, the Guidelines instruct that States "*should presume* that use of those same controls year-round is BART," and, for other sources currently using those technologies to reduce NO_X during part of the year, States "*should carefully consider* requiring the use of these controls year-round." *Id.* (emphasis added). Finally, for coal-fired Units greater than 200 megawatts located at power plants greater than 750 megawatts "and operating without post-combustion controls (i.e. SCR or SNCR)," the Guidelines "have provided *presumptive* NO_X limits." *Id.* (emphasis added).

b. The purpose, structure, and regulatory history of the BART Guidelines support EPA's reading of the regulation.

EPA's understanding of its presumptive limits is also supported by the purpose, structure, and regulatory history of the BART Guidelines. Wyoming's understanding of the presumptive limits would contravene the purpose of the BART requirement, which is to determine the *best* available retrofit technology for

each BART-eligible source. Structurally, the presumptive limits represent a small section at the end of the Guidelines, indicating that States should have already completed the five-step BART analysis prior to considering them. The regulatory history also aligns with EPA's reading, and Wyoming's arguments to the contrary are without merit.

Wyoming's interpretation would contravene the purpose of the BART requirement to determine the "*best available* retrofit technology," 42 U.S.C. § 7491(g)(2) (emphasis added), or, in other words, the "*best* system of continuous emission control technology *available* and associated emission reductions achievable for each BART-eligible source," 40 C.F.R. § 51.308(e)(1)(ii)(A) (emphases added). To allow states to adopt the presumptive limits without an accurate and reasonable assessment of whether those limits represent the "best" control for a particular Unit at the time of the determination would be unreasonable "in light of the overarching purpose" of the CAA's visibility requirements and the Haze Rule. *See* 79 Fed. Reg. at 5036/1. The presumptive limits ensure that states aim to achieve, at a minimum, the level of emission reduction that was available and cost effective at the time the BART Guidelines were adopted in 2005. The five-factor analysis ensures that states select the best, currently-available, cost-effective controls for a particular source. Wyoming's position that a 2005 calculation could govern these determinations indefinitely makes little sense in

light of the agency's detailed Guidelines to determine the "best available" control for each, individual source at the time.

The Guidelines provide extensive instructions on how to conduct the five-step BART analysis, with the presumptive limits described at the end. *See generally* 40 C.F.R. pt. 51, App. Y. The structure of the Guidelines indicates that EPA intended for states to use the Guidelines in their entirety—not pick and choose specific sections to rely on in isolation. *See generally id.* at IV.E. For example, the two subsections on presumptive limits—one addressing SO_2, the other NO_X—are included as part of a section called, "How do I select the 'best' alternative, *using the results of Steps 1 through 5*?" *Id.* (emphasis added). That section reiterates the necessity of considering the five BART factors before instructing states to "provide a justification for adopting the technology that you select as the 'best' level of control, *including an explanation of the CAA factors that led you to choose that option over other control levels*." 70 Fed. Reg. at 39170-71 (emphasis added). Only then do the BART Guidelines address presumptive limits. The title of the section and the content of the preceding sections and subsections demonstrate that states should have already completed the five-step BART analysis before considering the presumptive limits. This reinforces how the presumptive limits set a floor against which states select "the 'best' level

of control," not that the presumptive limits supplant the BART analysis entirely. *Id*.[37]

Finally, the Haze Rule's regulatory history also supports EPA's reading. When EPA established the presumptive limits in 2005, EPA stated that it was promulgating "presumptions only," and explained that "in making a BART determination, States have the ability to consider the specific characteristics of the source at issue and to find that the presumptive limits would not be appropriate for that source." 70 Fed. Reg. at 39134/3. Wyoming cites statements in the preamble to EPA's 2004 proposed Haze Rule and the 2005 Haze Rule in arguing that "the plain language of [the] BART Guidelines shows that the presumptive limits are BART." *See* WY Br. at 32. But, read in context and in light of the preamble to the 2005 Haze Rule, these statements do not establish that presumptive limits would be BART for every Unit for all time. Rather, EPA intended to propose a different kind of presumption—a minimum level of control that EPA found cost effective at the time—from which states could deviate based on the source-specific, five-factor analysis. *See* 69 Fed. Reg. at 25202/3 (A "State considering the costs of meeting

[37] Wyoming's position is belied by its actions. Wyoming attempted to conduct a five-factor analysis for all of its BART Units—albeit incorrectly and unreasonably—and in the case of Naughton Unit 3, selected an emission limit much more stringent than the presumptive limit. *See* JA Vol. II, JA000396-413, Wyoming Regional Haze SIP; JA Vol. V JA001065-66, Wyo. Analysis for Naughton.

these control levels and the degree of improvement in visibility should, in most instances, find that *at a minimum*, these controls represent BART.") (emphasis added); 25200 ("*The CAA identifies five factors that the States generally must consider* . . . . If, in any specific case, the State finds that these factors demonstrate that the presumed control levels do not represent BART, *we propose that the State may make a reasoned determination as to the appropriate level of control*.").

Wyoming takes issue with the Final Rule's contention that the presumptive limits, which were based on "older, generic calculations," do not provide the "best" control for the Units in Wyoming. 79 Fed. Reg. at 5096-97. Wyoming first argues that the presumptive limits were vetted "through multiple technical analyses and two rounds of comprehensive public comment" and are therefore not "generic." WY Br. at 37. Next, Wyoming contends that the presumptive limits cannot be deemed "old" because EPA still uses the BART Guidelines and the Control Cost Manual, both of which originated at a similar time.[38] *See id.* at 44. Both arguments miss the mark.

First, EPA did not conduct a five-factor analysis for each BART-eligible Unit to determine the NO_X presumptive limits in 2005. Instead, EPA relied on

[38] The BART Guidelines, of which the presumptive limits are a part, were promulgated in 2005 and have not been revised since. The sixth edition of the Control Cost Manual—the version in effect at the time Wyoming submitted its SIP and EPA issued its FIP—was issued in 2002. EPA is in the process of updating the Manual and has recently updated some of its chapters. *See supra* Note 4.

"basic geographic, operating, air emissions, and other data on all the generation units that are represented by 'model' plants." 69 Fed. Reg. at 25202 n.43; *see also* 70 Fed. Reg. at 39132/1. In response to comments, EPA "performed additional analyses of all individual BART-eligible coal-fired units," but acknowledged that the Agency's conclusions may not be "technically feasible and/or cost-effective" for some Units. 70 Fed. Reg. at 39134/3; *see also id.* at 39135. And, in establishing presumptive limits that would apply to all sources within broad categories of Units, EPA did not affirmatively determine that *post*-combustion controls—SNCR and SCR—would be unreasonable at any specific source. *See id.* at 39135 (discussing only combustion controls). In short, EPA used generic data in promulgating the presumptive limits as a 2005 floor against which states can evaluate their BART determinations, and these presumptive limits cannot be substituted for a Unit-specific, five-factor analysis.

Second, Wyoming's argument that the presumptive limits are no "older" than the rest of the Guidelines and the Manual is inapposite. *See* WY Br. at 38. The Guidelines provide instruction to states on how to conduct a five-factor analysis, which will not vary with the passage of time. *See generally* 40 C.F.R. pt. 51, App. Y. The Manual is updated periodically and, like the BART Guidelines, it provides a methodology to be used "where possible" in states' cost-effectiveness analyses and can be deviated from with documented, site-specific data. *See id.* at

IV.D.4.a.4-5. The Guidelines and Manual do not provide the kind of information that the presumptive limits provide, and they are not used in the way Wyoming contends the presumptive limits should be used. Instead, EPA applies the Guidelines and Manual to determine whether a state has conducted the source-specific, five-factor analysis accurately and reasonably, and then, where appropriate, compares the state's ultimate determination to the presumptive limits to assess the state's conclusion.

c. Case law supports EPA's reading of the regulation.

Relevant precedent supports EPA's interpretation of the regulatory presumptions as presumptive floors for BART. In *Darwin*, the Ninth Circuit rejected an argument similar to Wyoming's and found that the presumptive limits were not presumptive BART for all relevant sources. *Darwin*, 815 F.3d at 542. The Court explained that the presumptive limits are "rebuttable" and do "not preclude states or EPA from setting limits that differ from those presumptions." *Id.* (quoting 77 Fed. Reg. 72512, 72529 (Dec. 5, 2012). Rather, they "expressly allow for an alternative control level to be formulated based on the statutory factors, provided that the alternative limits are based on a reasoned BART analysis." *Id.* (citing 70 Fed. Reg. at 39171). Though the presumptive limits are presumed to be cost effective, the Court explained that they are "not presumed to be BART in every case." *Id.* Because of this, the Ninth Circuit found that "EPA acted reasonably in

departing from Guidelines' rebuttable presumptive limits." *Id.* Wyoming's brief ignores *Darwin* entirely.

The Tenth Circuit also indirectly recognized that the presumptive limits are not necessarily controlling in a BART analysis. In *WildEarth Guardians v. EPA*, 770 F.3d 919 (10th Cir. 2014), this Court found that EPA's use of the presumptive limits to predict emissions was neither arbitrary nor capricious in the creation of a regional cap-and-trade program regulating SO_2 emissions over the Colorado Plateau. The petitioners in that case contended that participants in the program should have conducted a source-by-source BART analysis instead of relying on the "presumptive BART benchmark" in Appendix Y, in part because the relevant presumptive limit is "rebuttable and serves only as the starting point of the BART analysis." *Id.* at 932. In making this argument, the petitioners pointed to "other rules" in which EPA "clarified the BART analysis for states and the role of Appendix Y." *Id.* This Court rejected petitioners' argument, explaining that petitioners overlooked the "critical distinction" between the use of the presumptive limits in a five-factor BART analysis as opposed to "a simplifying assumption" in a cap-and-trade program. *Id.* In other words, the Court acknowledged but distinguished the way EPA reasonably uses the presumptive limits as a floor in five-factor BART analyses.

3. If the meaning of the regulatory presumptions is ambiguous, the *Kisor* factors support deference to EPA's interpretation.

If the Court finds that the regulation does not unambiguously demonstrate that the presumptive limits set a floor for BART determinations, the regulation is at least ambiguous and this Court should defer to EPA's reasonable interpretation under *Kisor*, 139 S Ct. at 2416-18. *See also Suncor*, 50 F.4th at 1353-54. The agency's interpretation falls "within the bounds of reasonable interpretation." *Kisor*, 139 S. Ct. at 2416 (quoting *Arlington v. FCC*, 569 U.S. 290, 296 (2013)). It is reasonable for EPA to require states to conduct the five-factor analysis in the CAA and the Haze Rule, and for EPA to substantively evaluate SIPs in light of the statutory factors.

EPA's interpretation also satisfies all other prerequisites for *Kisor* deference. EPA's consistent, expressly-stated position since the BART Guidelines were promulgated in 2005, is that the presumptive limits do not allow states to avoid conducting a reasonable analysis of the five statutory factors. *See* 70 Fed. Reg. at 39134/3. Contrary to Wyoming's argument that EPA's interpretation is "new," *see* WY Br. at 33, EPA has consistently treated the presumptive limits as the minimum for what states should require after conducting a five-factor analysis. *See* Utah Final Rule, 77 Fed. Reg. 74355, 74363 (Dec. 14, 2012), corrected 78 Fed. Reg. 4341 (Jan. 22, 2013) (stating that "the presumptive BART limits do not obviate the

need to identify the best system of continuous emission control technology on a case-by-case basis considering the five factors."); Arkansas Final Rule, 77 Fed. Reg. 14604, 14608-09 (Mar. 12, 2012) (explaining that, for the presumptive limits, "EPA's intent was for these generally cost-effective controls to be used in the State's BART analysis considering the five factors"); North Dakota Final Rule, 77 Fed. Reg. 20894, 20901 (Apr. 6, 2012) ("A state may not simply 'stop' its evaluation of potential control levels at the presumptive level of control if more stringent control technologies or limits are technically feasible."). In other words, EPA has consistently interpreted the presumptive limits as only a floor for BART determinations, as reflected in the preambles to the 2004 proposed Haze Rule and 2005 Haze Rule.

Wyoming contends that EPA has on "at least three separate occasions . . . interpreted the presumptive limits to represent source-specific BART," WY Br. at 38, but this misrepresents EPA's actions. All three of those occasions involved EPA actions under Section 51.308(e)(2) of the Haze Rule—a provision that allows states to implement "an emissions trading program or other alternative measure" instead of determining BART for specific sources under Section 51.308(e)(1) (as Wyoming did for the Units at issue). *See* 40 C.F.R. § 51.308(e)(1), (2) (providing two options for complying with the CAA's BART requirement); *id.* § 51.308(e)(4) (allowing participation in a CAA trading program as a BART alternative); *id.*

§ 51.309(a), (d)(4)(i) (allowing participation in an SO_2 emissions trading program for Western states); 77 Fed. Reg. 73926 (Dec. 12, 2012) (approving Wyoming's participation in the SO_2 program); *see also WildEarth Guardians*, 770 F.3d at 932 (recognizing "a critical distinction" between EPA's use of the presumptive limits under the two options). In other words, when proceeding under 40 C.F.R. § 51.308(e)(2), states are allowed to use "simplifying assumptions," such as the presumptive limits, as a tool of comparison to demonstrate that an alternative program is "better-than-BART" instead of conducting a technically complicated and resource-intensive BART determination for each source covered by the program. *See WildEarth Guardians*, 770 F.3d at 929-30, 932. As EPA explained, "there is no need to develop a precise estimate of the emissions reductions that could be achieved by BART" to compare two programs. 71 Fed. Reg. 60612, 60618/2 (Oct. 13, 2006). However, when states are proceeding with a source-specific BART analysis under Section 51.308(e)(1), they must conduct the five-factor analysis and may determine that the presumptive limits are not appropriate for particular sources.

The Agency's interpretation is based on its substantive expertise. EPA reasonably limited the utility of the 2005 presumptive limits, treating them as a floor against which to compare BART determinations, as part of its comprehensive BART Guidelines created at the direction of Congress without contravening the

five statutory factors. EPA's interpretation is also a product of the Agency's fair and considered judgement through both its notice-and-comment rulemaking and its consistent application of the presumptive limits as a floor in its review of SIPs.

In sum, EPA was not required to approve Wyoming's BART determinations simply because they met the BART Guidelines' presumptive limits, and it would have been inappropriate for EPA to do so absent a reasonable showing by Wyoming that the presumptive limits represented BART after consideration of the five statutory factors. EPA did not exceed its authority in disapproving Wyoming's BART determination for Wyodak when Wyoming failed to conduct a reasonable five-factor BART analysis.

III. EPA's FIP Addressing Wyoming's Deficiencies for Wyodak Is Reasonable.

Under the CAA, EPA must promulgate a FIP to replace the disapproved BART determination for Wyodak. *See* 42 U.S.C. § 7410(c); *Oklahoma*, 723 F.3d at 1223. In the Final Rule, EPA promulgated a FIP requiring an emission limit consistent with the installation of SCR as BART for Wyodak. PacifiCorp raises a number of objections to EPA's determination, including their contention that EPA failed to consider existing controls, treat the Wyoming BART-eligible Units in an even-handed manner, or justify changes from the proposals. These arguments lack merit. EPA consistently considered and weighed the five factors in each instance. The Agency's FIP for Wyodak is reasonable and supported by the record, and

conforms to the applicable statutory and regulatory requirements. *See* 42 U.S.C. § 7491(g)(2); 40 C.F.R. § 51.308(e)(1)(ii)(A).

A. EPA Considered and Consistently Weighed the Five Statutory Factors in Determining BART for Wyodak.

In promulgating the FIP for Wyodak, EPA carefully considered and weighed the five statutory factors, adopted the State's assessments when reasonable, conducted its own technical analysis when needed, and incorporated information obtained from public comments as appropriate. EPA adopted Wyoming's assessment of "energy and non-air quality environmental impacts" and the "remaining useful life" of Wyodak, as Wyoming and EPA agreed that these factors did not preclude any particular control technology. Final Rule, 79 Fed. Reg. at 5050 (general explanation), 5165/3 (energy and non-air quality environmental impacts discussion); 2013 Proposed Rule, 78 Fed. Reg. at 34783-84 (useful life discussion). Instead, EPA focused its analysis of the BART factors for the FIP on the two factors (costs and visibility benefits) on which it had premised its disapproval of the SIP. EPA avoided Wyoming's errors on these factors by independently calculating the "costs of compliance" and conducting its own visibility modeling. General costs were derived from the Control Cost Manual unless site-specific costs were supported, 79 Fed. Reg. at 5039/2, and EPA considered "incremental cost-effectiveness in combination with the average cost effectiveness" as provided in the BART Guidelines. 40 C.F.R. pt. 51, App. Y,

IV.D.4.e.1. When modeling visibility improvement, EPA examined all feasible controls, including SNCR, and their impacts on all Class I areas, as directed by the statute and implementing regulations. 2013 Proposed Rule, 78 Fed. Reg. at 34749/2; Final Rule, 79 Fed. Reg. at 5114/2; 42 U.S.C. § 7491(g)(2); 40 C.F.R. § 51.308(e)(1)(ii)(A); 40 C.F.R. pt. 51, App. Y, IV.E.2. Finally, EPA considered "existing controls" as part of its costs calculation and determination that certain controls were technologically feasible.

1. EPA considered energy and non-air quality environmental impacts of SCR.

PacifiCorp contends that EPA failed to analyze the energy and non-air quality environmental impacts of SCR, but EPA did consider them. However, it found that these factors did not merit excluding SCR as a control. Final Rule, 79 Fed. Reg. at 5050, 5165/3; 78 Fed. Reg. at 34783-84. Specifically, contrary to PacifiCorp's argument, PacifiCorp Br. at 39-40, EPA agreed with the State's assessment of energy and non-air quality environmental impacts of SCR, including SCR's the use of chemical reagents and consumption of additional power. Final Rule, 79 Fed. Reg. at 5165/3; *see, e.g.*, 77 Fed. Reg. 57864, 57887 (Sept. 18, 2012) (finding "the nonair quality environmental impacts associated with the disposal of the ash waste or transportation of chemical reagents or catalysts" are "negligible" and "no different than those at numerous other boilers where SNCR or SCR have been successfully applied."). Such impacts can also be reduced to costs and

considered in the cost of compliance factor. *See, e.g.*, 40 C.F.R. pt. 51, App. Y, IV.D.4.h.3 (allowing for separate consideration of indirect energy and environmental impacts if "unusual" or "significant"). Here, PacifiCorp made no showing that the above costs and impacts are significant or particular to Wyodak and essentially contends that these impacts should be considered twice—first when examining the energy and non-air quality environmental impacts and again when calculating the cost of compliance. *See* JA Vol. V, JA001188-90, Wyo. Analysis for Wyodak (PacifiCorp quantifying energy impacts and costs); JA Vol. V, JA001177, Addendum to Wyodak BART Report (same). Notably, the State did not seek this "double counting" with other Units. *See, e.g.*, JA Vol. IV, JA001016, Wyo. Analysis for Naughton Unit 3 (including line items for waste disposal cost and electric power cost). EPA specifically considered additional energy needs by building them into the cost of compliance. *See, e.g.*, JA Vol. VIII, JA002117, Andover Report (discussing power costs); JA Vol. IX, JA002193, Andover Report Spreadsheets (including power needs for SCR as "Variable O&M Costs" under the "NOx-SCR 20" tab). And EPA considered the other non-air quality environmental impacts so minor as to not impact the selection of SCR.

PacifiCorp's argument that EPA ignored the energy impacts of removing a Unit from service is equally without merit. PacifiCorp Br. at 55. As EPA explained in response to comments, most of the construction of control devices "occurs with

the unit operating." Final Rule, 79 Fed. Reg. at 5166. EPA agreed that the Unit will need to be shut down to install the SCR but explained that EPA assumed the facility owners would schedule the retrofit of controls during maintenance outages, especially since EPA allowed PacifiCorp five years to meet the BART emission limits (the maximum time allowed under the statute). As such, EPA reasonably concluded that the retrofit of emission controls would have little impact on the energy production of the Units. *See* Final Rule, 79 Fed. Reg. at 5166.

PacifiCorp also argues that EPA failed to consider energy costs which "are not economically justifiable" and cause the retirement of the Unit. *See* PacifiCorp Br. at 55. This argument lacks record support. The BART Guidelines clarify that if the costs of controls would lead to the shutdown of a source, the State (or EPA) may take this into account. *See* 40 C.F.R. pt. 51, App. Y, IV.E.3; *see also, e.g.*, 79 Fed. Reg. 33438, 33442 (June 11, 2014) (determining in a FIP that proposed BART controls at a facility were not affordable and requiring less stringent controls). EPA specifically requested information from commenters on its weighing of control costs for Wyodak. *See* 78 Fed. Reg. at 34785. PacifiCorp failed to provide *any* information demonstrating that requiring the installation of SCR on Wyodak would cause the Unit to become uneconomic. EPA accordingly had no basis to consider the speculative energy costs associated with a possible shutdown of Wyodak.

2. EPA considered existing control technology.

PacifiCorp contends that EPA failed to consider "existing control technology" when developing its baseline emissions calculations. *See* PacifiCorp Br. at 36. To be sure, the statute requires consideration of "any existing control technology in use at the source" when making a BART determination as part of a SIP or FIP. But, as EPA explained, the statute does not specify how states or EPA must take this factor into consideration, and EPA did so reasonably here.

As an initial matter, PacifiCorp's argument is belied by its own treatment of existing controls when it analyzed post-combustion controls. *See generally* JA Vol. V, JA001077-1164 (2007 report), JA001165-1179 (March 2008 addendum), JA001180-1223 (May 2009 addendum). PacifiCorp analyzed SCR (and SNCR) in the same manner as EPA in the Final Rule. That is, both PacifiCorp and EPA used a baseline intended to reflect emissions *before* the installation of Combustion Controls, calculated average cost effectiveness of the SCR, and modeled the visibility benefits[39] of SCR. For example, PacifiCorp's BART analysis used a pre-Combustion Control baseline emission rate of 0.31 lb/MMBtu, *see, e.g.*, JA Vol. V, JA001089; calculated the average cost effectiveness of SCR as $4,253/ton, *see*

[39] As noted in Argument Part II.B, *supra*, PacifiCorp's visibility modeling, as adopted by Wyoming, combined the visibility benefits from PM and SO_2 emission reductions with those from NO_X emissions which prevented the State and EPA from determining what portion of the visibility was attributable solely to NO_X controls.

id. JA001176-1179; and modeled the visibility *impact* of SCR as 0.30 deciviews at Badlands and 0.39 deciviews at Wind Cave, *see id.* JA001170. Indeed, these same average cost-effectiveness values and modeling results served as the basis for Wyoming's subsequent 2009 BART analysis and eventual BART determination for Wyodak. *See* JA Vol. V, JA001188, JA001190, JA001207, JA001211. While some of the specifics may vary from EPA's approach (e.g., PacifiCorp's use of potential emissions rather than actual emissions to establish pre-Combustion Control baseline emissions), EPA and PacifiCorp used the same basic approach to "any existing controls."

EPA further explained that the Guidelines merely advise that when control measures or devices are already in place, the states and EPA should consider "control options that involve improvements to existing controls" and should not "limit the control options only to those measures that involve a complete replacement of control devices." 40 C.F.R. pt. 51, App. Y, IV.D.1.6. EPA thus concluded that "states and EPA have considerable discretion in how they consider existing controls in use at a source, so long as that consideration is explained and reasonable" after considering "the totality of the circumstances (e.g., the purpose of any existing controls, when and why they were installed, compatibility with other control options, enforceability, and other pertinent factors)." Final Rule, 79 Fed. Reg. at 5104/3.

Here, EPA reasonably considered the Combustion Controls that PacifiCorp installed in 2009, after Wyoming selected them as BART in its SIP but before EPA acted on the SIP. First, consistent with the BART Guidelines, EPA considered whether additional control options, in this case SNCR and SCR individually, were technologically compatible with the recently-installed Combustion Controls and concluded that they were. *Id.* at 5104/3. Second, EPA adjusted the Units' emission rates to reflect the reductions achieved by Combustion Controls when evaluating the size, design, and reagent costs of SNCR and SCR individually. *See id.* at 5105/2, 5104/3.

EPA responded to comments arguing that EPA should have also considered existing controls by updating the emissions baseline to exclude emissions achieved by those controls, as PacifiCorp argues EPA should have done for Wyodak. EPA first explained that baseline emissions should be based on actual emissions from a baseline period. *See id.* at 5104 (citing 40 C.F.R. pt. 51, App. Y, IV.D.4.d.1). The BART Guidelines require baseline emissions to be "'a realistic depiction of anticipated annual emissions' *before the installation of BART* . . . so that the cost-effectiveness and visibility improvements of all potential BART control options can be evaluated from a consistent benchmark." *Id.* (quoting 40 C.F.R. pt. 51, App. Y, IV.D.4.d.1) (emphasis added). EPA further explained that the baseline can be adjusted to take into account future operating parameters made enforceable in a

state's SIP, but that using such an "updated baseline" "might not be appropriate . . . if it appeared that controls had been installed early in order to avoid a more stringent BART determination" as appeared to be the case for Wyodak. *Id.* at 5105/1 (citing 77 Fed. Reg. at 72526 (Arizona regional haze rule)).

Indeed, here, EPA reasonably did not adjust the 2001-2003 baseline emissions given that PacifiCorp had installed Combustion Controls at Wyodak in 2009, after the baseline period, and after Wyoming made its BART determination for Wyodak, but before EPA took action on the State's SIP. EPA noted that the Combustion Controls were not installed to comply with other CAA requirements, but instead may have been installed to try to avoid a more stringent BART determination. *See* Final Rule, 79 Fed. Reg. at 5105/1. If EPA had adjusted baseline emissions as PacifiCorp suggests, it "would bias EPA's analysis of additional control options" by giving PacifiCorp "credit for emissions reductions attributable to BART, but treating the costs they incurred to achieve those reductions as if they had never occurred." *Id.*

Contrary to PacifiCorp's argument, EPA's FIP for Wyoming is consistent with the Eighth Circuit's decision in *North Dakota*, which is, of course, not binding on this Court. In *North Dakota*, EPA argued that it did not have to consider existing controls at all if they had been voluntarily installed by the source. 730 F.3d at 762-63. The Eighth Circuit rejected this argument, pointing out that the

phrase "any existing pollution control technology in use at the source," 42 U.S.C. § 7491(g)(2), used the expansive word "any" and therefore included voluntarily-installed controls. *North Dakota*, 730 F.3d at 764. Consequently, the Eighth Circuit held that "EPA's refusal to consider the existing pollution control technology in use at the Coal Creek Station because it had been voluntarily installed was arbitrary and capricious." *Id.*

As EPA explained in the Final Rule, however, neither the CAA nor the *North Dakota* decision dictates how existing controls must be considered. Final Rule, 79 Fed. Reg. at 5104/2-05/2. And as explained above, EPA reasonably considered existing controls in its BART analysis for the FIP after considering the totality of the circumstances and thoroughly explaining its rationale.

The fact that PacifiCorp installed Combustion Controls for the purpose of complying with BART, but did so before EPA had finished its review of Wyoming's SIP, creates the possibility that PacifiCorp may have intended to preclude a decision by EPA that more stringent controls were necessary. *Id.* Regardless of PacifiCorp's intent, PacifiCorp installed the controls consistent with Wyoming's BART determination *before* EPA had an opportunity to act on it. If EPA were required to consider such controls as part of the baseline, it would effectively undermine EPA's exercise of its authority to ensure that the SIP meets the CAA's requirements. In any event, EPA acknowledged the *North Dakota*

decision in the Final Rule and explained how the existing controls at Wyodak were considered. EPA considered existing controls in a reasonable fashion, consistent with the decision in *North Dakota*, and PacifiCorp's arguments to the contrary are without merit.[40]

3. EPA reasonably gave significant weight to the costs of compliance and visibility improvement.

With the other three factors properly accounted for, EPA reasonably gave cost of compliance and visibility improvement "significant and determinative" consideration and applied these two factors in a manner consistent with the BART Guidelines. Final Rule, 79 Fed. Reg. at 5047; *see* 70 Fed. Reg. at 39123. EPA determined that the addition of SCR would lead to a significant visibility improvement (0.61 deciviews) at Wind Cave National Park.[41] *See* Table 1, *supra* at

---

[40] PacifiCorp also argues in a footnote that the Final Rule is confusing and inconsistent because it requires overfire air in some parts, while requiring separated overfire air in others. *See* PacifiCorp Br. at 13 n.7. These are two distinct types of combustion controls. References in the Final Rule to separated overfire air are clearly typographical errors because Wyodak is a wall-fired boiler and separated overfire air is relevant only to tangentially-fired boilers. In any event, the Final Rule does not impose any specific control technology on Wyodak. *See* 79 Fed. Reg. at 5039 Tbl.1, 5221 Tbl.2; 40 C.F.R. § 52.2636 Tbl.2. Rather, it requires Wyodak to meet an emission limit of 0.07 lb/MMBtu (30-day rolling average), which is compatible with the combustion controls PacifiCorp already installed at Wyodak plus SCR.

[41] Under the BART Guidelines, a source "contributes to any visibility impairment," and thus becomes subject to BART, if it has an impact greater than 0.5 deciview at any Class I area. *See* 70 Fed. Reg. at 39161/3. It is thus logical that EPA would deem significant a level of visibility improvement at a single Class I area that is

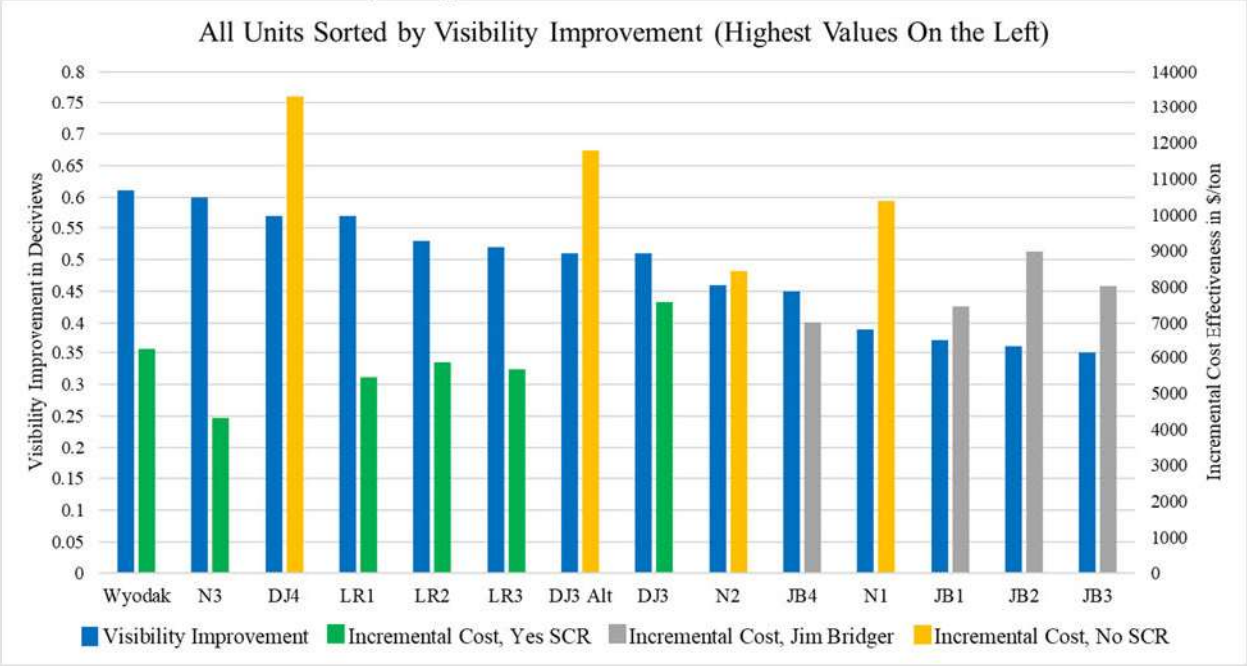
34; Final Rule, 79 Fed. Reg. at 5050 Tbl.22. In general, PacifiCorp argues that the visibility improvement from adding SCR alone is below 1.0 deciview, the threshold for a visibility improvement perceptible to humans. *See* PacifiCorp Br. at 38 & n.18. But other courts have affirmed that, in an individual BART determination, visibility improvement need not be perceptible to the human eye to be significant. *See, e.g.*, *Darwin*, 815 F.3d at 539 ("SRP's insistence on 'human perception' as the determinative 'cornerstone' for the BART determinations . . . is overstated. As discussed above, when promulgating the BART Guidelines, EPA explicitly disagreed 'that the degree of improvement should be contingent upon perceptibility' when determining BART for an individual source."). PacifiCorp complains that the 2012 Proposed Rule rejected the addition of SCR on top of Combustion Controls because the incremental visibility improvement was too insignificant. *See* PacifiCorp Br. at 38-39. But PacifiCorp ignores the other changes EPA made, in response to comments, to its cost analysis and its assessment of visibility improvement at Wind Cave National Park and cumulative visibility improvement.

---

greater than the threshold at which a source becomes subject to BART in the first place.

Below is a chart, compiled from information in the Final Rule,[42] showing SCR visibility improvements in the most impacted Class I area (left Y-axis with bars in blue) and incremental cost effectiveness (right Y-axis) for each of the Units in the Final Rule. Incremental cost effectiveness is color-coded for each Unit: green indicates emission limits consistent with SCR as BART; orange indicates that emission limits consistent with SCR were *not* selected as BART; grey indicates the Jim Bridger Units (where SCR was not selected as BART but the Units were otherwise required to install SCR). *See infra* Note 48 (discussing special circumstances for Jim Bridger).

CHART 1: Visibility Improvement and Incremental Cost Effectiveness



[42] 79 Fed. Reg. at 5039-40, Tbls.2-4 (Laramie River); *id.* at 5040-41, Tbls.5-8 (Jim Bridger); *id.* at 5042, Tbls.9-11 (Dave Johnston); *id.* at 5043, Tbls.12-14 (Naughton); *id.* at 5044, Tbl.15 (Wyodak). Where EPA calculated two values for visibility improvement (Jim Bridger and Naughton), the highest value is displayed.

As this chart shows, out of all the Wyoming Units considered, the visibility improvement yielded by SCR was greatest at Wyodak. When EPA examined the cost of compliance, EPA further determined that the average cost effectiveness ($4,036/ton) and the incremental cost effectiveness of SCR ($6,233/ton) were both in line with other FIPs EPA had promulgated, including FIPs for Dave Johnston and Laramie River. *See* Table 1, *supra* at 34; Final Rule, 79 Fed. Reg. at 5051/1. Given relative visibility benefits and cost effectiveness, EPA reasonably promulgated a FIP with an emission limit of 0.07 lb/MMBtu, as a 30-day rolling average, consistent with the installation of SCR for Wyodak.

B. EPA's BART Determination was Consistent with EPA's Own Findings.

EPA's rejection of Combustion Controls alone for Wyodak was consistent through both Proposed Rules and the Final Rule. PacifiCorp contends that EPA acted arbitrarily because EPA proposed to reject SCR as BART for Wyodak in the 2012 Proposed Rule based on cost and visibility numbers that were similar to those that EPA ultimately found were sufficient to justify the addition of SCR in the Final Rule. PacifiCorp Br. at 56-58. As an initial matter, PacifiCorp fails to point to any comments it provided that assert this argument. In the 2013 Proposed Rule, EPA expressly informed Wyoming and PacifiCorp that it was considering SCR, so by failing to raise these issues in comments, they have been waived. *See WildEarth*

Guardians, 770 F.3d at 933. In any event, these arguments lack merit for many of the same reasons discussed above regarding similar arguments about the alleged similarity between EPA's and the State's cost of compliance and visibility improvements. *See supra* Argument Part II.D. Most importantly, they neglect the fact that EPA ultimately discarded its proposed reasons for rejecting SCR in the Proposed Rules. *Compare* 2012 Proposed Rule, 77 Fed. Reg. at 33055 *with* 2013 Proposed Rule, 78 Fed. Reg. at 34784-85 *with* Final Rule, 79 Fed. Reg. at 5050-51. And EPA specifically requested comment on whether it should consider selecting another control option as BART in the 2013 Proposed Rule. *See* 78 Fed. Reg. at 34784.

In the 2012 Proposed Rule, EPA largely followed Wyoming's approach and focused almost exclusively on the incremental visibility improvement metric in evaluating whether Wyoming's rejection of SCR was reasonable. 2012 Proposed Rule, 77 Fed. Reg. at 33055. In the 2013 Proposed Rule, however, EPA recognized that a broader approach to evaluating visibility benefits was necessary to be consistent with the approaches that EPA and other states had taken in other regional haze actions. Therefore, in addition to considering incremental visibility improvement, EPA gave increased weight to other visibility metrics, such as the visibility improvement at the most impacted Class I area and the cumulative visibility improvement across all impacted Class I areas. 2013 Proposed Rule, 78

Fed Reg. at 34784-85. For Wyodak, EPA expressly explained that, for SCR, "the cost-effectiveness and visibility improvement are within the range of other EPA FIP actions," 78 Fed Reg. at 34785/1, demonstrating how EPA's views had evolved from the 2012 Proposed Rule.

In the 2013 Proposed Rule, EPA had proposed SNCR "based on the reasoning that the cumulative visibility improvement of SCR across all Class I areas was low when compared to the cumulative visibility improvement associated with SCR" at other Units. 79 Fed. Reg. at 5050/2. A number of commenters argued, and EPA agreed in the Final Rule, that cumulative visibility benefits should not be so considered since that would have the "illogical effect of allowing an added benefit (visibility improvement at multiple Class I areas) to weigh in favor of less stringent controls." 79 Fed. Reg. at 5050/3. In other words, where the visibility benefits at the most impacted area are low, additional improvement at other areas may justify the use of more stringent controls, but when visibility benefits at the most impacted areas are substantial, it is reasonable for that to take precedence over limited cumulative benefits. *See id.*

In the Final Rule, EPA therefore reasonably focused its analysis on the costs of controls and visibility benefits at Wind Cave National Park. EPA found that the addition of SCR was not cost prohibitive and would result in significant visibility improvement of 0.61 deciviews at Wind Cave, the highest improvement at the

most impacted Class I area for all the Units in Wyoming. *See* Final Rule, 79 Fed. Reg. at 5050-51; *see also* Table 1, *supra* at 34. Additional visibility improvement elsewhere—0.38 deciviews at Badlands National Park—only bolstered EPA's support for the SCR determination. *See* Final Rule, 79 Fed. Reg. at 5050/1 ("We also considered the visibility improvement at a second impacted Class I area (Badlands), which is a maximum of 0.38 deciviews . . . ."). In the Final Rule, EPA reasonably selected SCR as BART for Wyodak because of these visibility improvements and average and incremental cost-effectiveness values in a range that both Wyoming and EPA had determined were reasonable ($4,036/ton and $6,233/ton, respectively). *See id.* at 5051/1; *see also* Table 1, *supra* at 34 (SCR for all Units with above a 0.51 deciviews visibility improvement). For these reasons, EPA's determination that BART for Wyodak is an emission limit consistent with the installation of SCR is well-supported by the record and well-explained. Thus, the Court should uphold EPA's FIP for Wyodak.

IV. EPA Reasonably Approved Wyoming's BART Determinations for Naughton Units 1 and 2.

Conservation Organizations raise two challenges to EPA's Final Rule with regard to Naughton Units 1 and 2. First, Conservation Organizations argue that EPA violated the CAA and Haze Rule "by rejecting SCR based solely on incremental costs." Conservation Orgs. Br. at 24-31. Second, Conservation Organizations argue that EPA arbitrarily applied a retrofit factor to calculate cost

estimates for SCR, which Conservation Organizations contend skewed EPA's BART analysis. *Id.* at 32-37. Both arguments lack merit.

A. EPA appropriately considered all five factors in concluding that an emission limit consistent with Combustion Controls is BART for Naughton Units 1 and 2.

Conservation Organizations misleadingly suggest that the Haze Rule and CAA impose two "overarching mandates" for BART determinations *in addition to* consideration of the five statutory factors. Conservation Organizations argue that the CAA requires that BART "must provide for the elimination of human-caused haze pollution . . . at a reasonable rate of progress," and suggest that the "best" control under the Haze Rule is one that reduces haze the most. Conservation Orgs. Br. at 22. But neither the CAA nor the Haze Rule support Conservation Organizations' interpretation.

The CAA lists BART as *one of* the "measures . . . necessary to make reasonable progress toward meeting the national goal." 42 U.S.C. § 7491(b)(2). Indeed, the CAA expressly recognizes other necessary measures. *Id.* Further, § 7491(g)(2) defines BART as the result of a "consideration" of the five statutory factors. Although EPA acknowledges that BART determinations "must be reasonable in light of the overarching purpose of the regional haze program," Final Rule, 79 Fed. Reg. at 5036/1, that overarching purpose cannot override the results of a reasonable five-factor analysis (for example, by requiring controls that were

deemed to be too costly or of insufficient benefit). The CAA provides flexibility for states or EPA to identify measures, including BART, that collectively make reasonable progress. *See Darwin*, 815 F.3d at 533 (9th Cir. 2016) (holding that "the Act sets out standards for BART that are freestanding, source-by-source, and not dependent on the long-term visibility goals identified").

The Haze Rule describes BART as "based on *an analysis* of the best system of continuous emission control technology available and associated emission reductions achievable . . . . In *this analysis* the State must take into consideration" the five statutory factors. 40 C.F.R. § 51.308(e)(1)(ii)(A) (emphases added). In other words, the Haze Rule's requirement that states (or EPA) conduct an analysis of the "best" system is merely a way of describing what states must do to determine BART—i.e., they must select the best control after considering the five statutory factors. "Taking these factors into account allows the State to arrive at an estimate of the 'best system' of retrofit control technology for a particular source." 1999 Haze Rule, 64 Fed. Reg. at 35741/1. Thus, the word "best" does not mean that states or EPA must select the most stringent emission control or the control that achieves the greatest progress towards natural visibility conditions. *See Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 218 (2009) (rejecting argument that "best technology" in the Clean Water Act must mean "the technology that achieves the greatest reduction in adverse environmental impacts"). Instead, the

five-factor analysis, which includes visibility improvement as one factor, determines which controls are "best."

EPA appropriately assessed the State's BART determinations for Naughton Units 1 and 2. Contrary to Conservation Organizations' assertions, EPA did not treat "incremental costs in a vacuum," Conservation Orgs. Br. at 27, or base its determinations for Naughton Units 1 and 2 "solely on incremental costs" *id.* at 24, 28. Instead, EPA appropriately considered each of the five factors in its analysis of BART for Naughton Units 1 and 2. *See* Final Rule, 79 Fed. Reg. at 5046/3 (stating that based on changes to its visibility modeling and cost estimates, EPA reassessed its "proposed action on the State's NO_X BART determinations for each of the subject-to-BART sources by reevaluating the five statutory factors"); *id.* at 5050/1 (focusing on visibility improvement and cost of compliance); *id.* at 5049/3 (noting that EPA considered comments but did not change its assessment of the other three factors).[43] As with Wyodak, EPA conducted its own analysis of two factors for which it found the State's BART analysis for Naughton inadequate—costs of compliance and visibility improvement. 79 Fed. Reg. at 5050/3.

[43] Contrary to Conservation Organizations' argument, EPA did not determine that the other three factors "uniformly support[] SCR." Conservation Orgs. Br. at 24. Instead, EPA accepted Wyoming's consideration of those factors, which could support selection of any of the control options, so were not determinative. *See* 79 Fed. Reg. at 5049; 78 Fed. Reg. at 34781; 77 Fed. Reg. at 33036.

EPA revised and refined its calculations and modeling for those two factors during the rulemaking process. *See* Statement of the Case Part B.2-4. In the 2012 Proposed Rule, EPA relied on the State's assessment of costs and conducted its own modeling of visibility improvement. At that time, EPA proposed to approve the State's BART determinations for Naughton Units 1 and 2. In the 2013 Proposed Rule, EPA conducted its own calculation of costs (resulting in cost-effectiveness values lower than those used in the 2012 Proposed Rule) and revised its visibility modeling (resulting in higher visibility improvement values than in the 2012 Proposed Rule). EPA proposed to promulgate a FIP requiring SCR for Naughton Units 1 and 2. In the Final Rule, EPA again revised both its costs and visibility analyses. This resulted in EPA finding that SCR would be more costly and would provide less visibility improvement than projected in the 2013 Proposed Rule (as well as the 2012 Proposed Rule). Table 2 below, compiled from information in the Proposed and Final Rules,[44] shows EPA's assessment of cost effectiveness (average and incremental) and visibility improvements for SCR at Naughton Units 1 and 2, as calculated in each of the Proposed Rules and the Final Rule.

[44] 77 Fed. Reg. at 33037 Tbls.11-12 (incremental cost effectiveness appears in the text beneath each table); 78 Fed. Reg. at 34782 Tbls.53 & 55; 79 Fed. Reg. at 5043 Tbls.12-14.

TABLE 2: SCR Costs and Visibility Improvement Proposed and Final Rules

		Ave. Cost Effectiveness ($/ton)	Incremental Cost Effectiveness ($/ton)	Visibility Improvement (dv)
Naughton Unit 1	**2012 Proposed Rule**	2,750	8,089	1.07
	2013 Proposed Rule	2,318	6,947	1.23
	Final Rule	3,109	10,384	0.39
Naughton Unit 2	**2012 Proposed Rule**	2,848	7,852	1.10
	2013 Proposed Rule	2,255	7,050	1.42
	Final Rule	2,556	8,440	0.46

Accordingly, contrary to Conservation Organization's claim, EPA did not base its determination solely on one aspect of one factor. EPA's reevaluation of the five factors included consideration of the revised visibility improvements, as well as revised costs (including average cost-effectiveness and incremental cost-effectiveness figures). Notably, Conservation Organizations do not challenge EPA's revised analysis of visibility improvements. Although EPA gave substantial weight to cost effectiveness, nothing prohibited EPA from doing so. This is especially true where, as here, visibility benefits are not particularly high and incremental costs are significant. *See* 40 C.F.R. pt. 51, App. Y, IV.D.4.e.5.

1. EPA considered the visibility factor.

For the visibility factor for Naughton Units 1 and 2, EPA revised its calculations of deciview improvement at the most impacted area (Bridger Wilderness Area) and other affected Class I areas. *See* 79 Fed. Reg. at 5043-45. EPA calculated the visibility improvements for each of the three controls at each of the affected Class I areas. *See* JA Vol. IX, JA002267-68 Tbl.H.6, EPA Region 8, Air Quality Monitoring Protocol: Wyo. Regional Haze Federal Implementation Plan (Jan. 2014).

Although in the 2013 Proposed Rule EPA found that cumulative visibility improvement from SCR at all affected Class I areas was "significant," 78 Fed. Reg. at 34783 (noting cumulative visibility improvement of 3.54 deciviews and 4.18 deciviews for Units 1 and 2 respectively), EPA's updated modeling in the Final Rule shows that cumulative visibility improvements are substantially less, *see* 79 Fed. Reg. at 5043-44. Indeed, the projected cumulative visibility improvement is 1.67 deciviews and 2.1 deciviews for Units 1 and 2, respectively. *See id.* at 5043/3 (providing numbers for Unit 1); *id.* at 5044/2 (providing numbers for Unit 2). Further, although EPA determined that the visibility improvement at Bridger Wilderness Area associated with SCR f*or all three Naughton Units combined* "remains significant," EPA acknowledged that the visibility improvement is "more modest on a unit-specific basis." 79 Fed. Reg. at 5050.

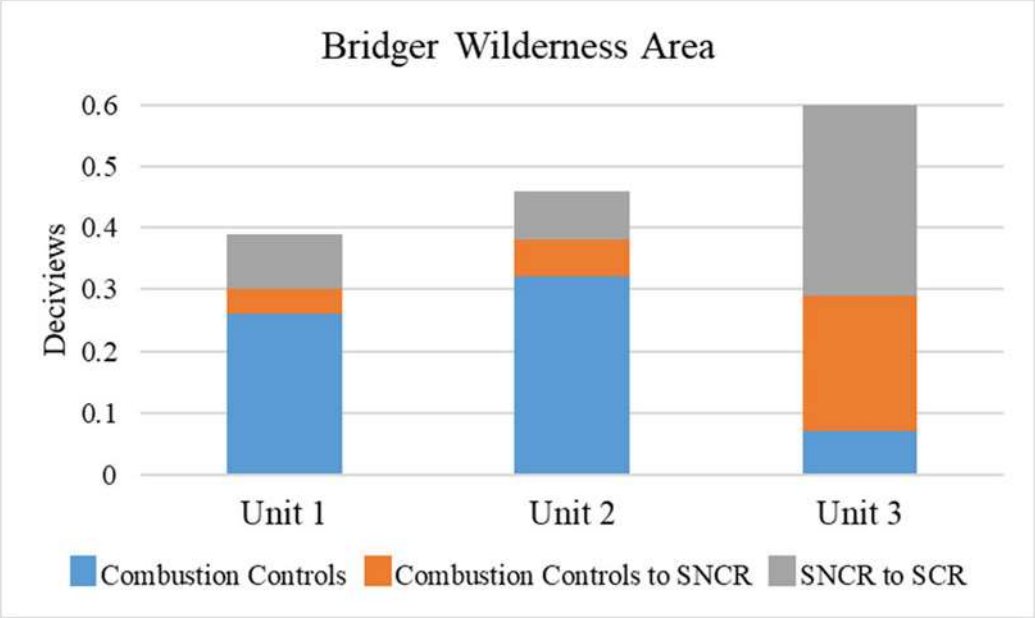
Notably, Unit 3 represented 0.60 of the 1.45 deciviews that EPA projected for all three Units for visibility improvement at the Bridger Wilderness Area. *Id.* Tbl.21. EPA approved emission limits consistent with SCR for Unit 3 as BART, so visibility improvement with the approved BART determinations at the Bridger Wilderness Area for the three Units combined is 1.18 deciviews—a difference of 0.27 deciviews from the scenario where Units 1 and 2 would also use SCR.

In the Final Rule, EPA stated that, in comparing control options, it is natural to compute the incremental visibility improvement when considering the visibility improvement factor. 79 Fed. Reg. at 5169. Although EPA did not expressly point to the incremental visibility improvement for SCR for Naughton Units 1 and 2, in approving Wyoming's rejection of SNCR, EPA noted that "the incremental visibility improvement of SNCR over [Combustion Controls], while possibly appreciable, is very low at just 0.10 deciviews across both units." *Id.* at 5050; *see also id.* Tbl.21 (providing basis for calculating incremental visibility improvement of SNCR as 0.04 deciviews for Unit 1 and 0.06 deciviews for Unit 2). The incremental visibility improvement of SCR for Naughton Units 1 and 2 are 0.09 deciviews and 0.08 deciviews, respectively, at the Bridger Wilderness Area. *See id.* at 5050 Tbl.21.[45] Notably, EPA found that similar values for Jim Bridger Units 1

[45] For both Naughton Units 1 and 2, the Bridger Wilderness Area had the largest incremental visibility improvements of any Class I area. *See* JA Vol. IX, JA002267-68 Tbl.H.6.

and 2, which ranged between 0.07 and 0.11 deciviews, had "low incremental improvement over SNCR." 79 Fed. Reg. at 5048. The chart below, compiled from information in the Final Rule,[46] shows incremental visibility improvements for Naughton Units 1 and 2, with Unit 3 for comparison.

CHART 2: Naughton Units Incremental Visibility Improvement



2. EPA appropriately considered incremental costs.

For the cost factor in the Final Rule, EPA updated its calculations for average cost effectiveness and incremental cost effectiveness. Although the average cost-effectiveness figures for SCR are higher than in the 2013 Proposal (meaning the controls are less cost effective), EPA still considered the average cost effectiveness of those controls to be acceptable. 79 Fed. Reg. at 5050. However,

[46] 79 Fed. Reg. at 5050 Tbl.21.

the incremental cost effectiveness figures for SCR are significantly higher than in the 2013 Proposal. Indeed, EPA explained that "the revised incremental cost effectiveness values were beyond the upper end of the range . . . of what we have found to be acceptable in our other FIPs." *Id.* Although EPA did not identify the other FIPs to which the Agency was referring,[47] EPA did specifically refer to incremental costs of installing SCR at the Jim Bridger facility. *See id.*; *see also Darwin*, 815 F.3d at 541-42 (finding that EPA's approach of comparing the cost effectiveness of the same controls at similar facilities is consistent with both the BART Guidelines and the CAA).

In approving emission limits consistent with Combustion Controls as BART for Jim Bridger, EPA pointed specifically to the incremental cost effectiveness of SCR—$7,477/ton and $8,986/ton for Jim Bridger Units 1 and 2, respectively. 79 Fed. Reg. at 5048/3. EPA explained that these incremental cost-effectiveness values are "on the high end of what we have found to be reasonable in our other FIPs." *Id.*[48] Indeed, when compared to the incremental cost effectiveness of SCR at

---

[47] As discussed above, EPA has reviewed hundreds of BART determinations and has developed an expertise in evaluating cost estimates. *See* Argument Part I.B at 56.

[48] At Jim Bridger, Wyoming did not choose SCR as BART, but committed that SCR would be installed as part of the State's long-term strategy. *See* 79 Fed. Reg. at 5048/1. At Jim Bridger Units 3 and 4, SCR would be installed within the same timeframe as if SCR had been selected as BART. *Id.* At Jim Bridger Units 1 and 2, the deadlines for SCR installation would be 2022 and 2021, respectively. *Id.* EPA

the other Units addressed in the Final Rule, only the incremental cost-effectiveness value at Dave Johnston Unit 4 (where SCR was not required) comes close to the $10,384/ton estimated for Naughton Unit 1, and only the incremental cost-effectiveness values at Jim Bridger Units 2 and 3 come close to the $8,440/ton estimated for Naughton Unit 2.

Below are two charts, compiled from information in the Final Rule,[49] showing SCR visibility improvements in the most-affected Class I area (left Y-axis with bars in blue) and incremental cost effectiveness (right Y-axis) for each of the Units in the Final Rule. The first chart is sorted by visibility improvement and is identical to Chart 1 above. The second chart contains the same information and is sorted by incremental cost effectiveness (with the lowest (most cost-effective) values on the left). Incremental cost effectiveness is color-coded for each Unit: green indicates emission limits consistent with SCR as BART; orange indicates Units for which emission limits consistent with SCR were *not* selected as BART; grey indicates the Jim Bridger Units (where SCR was not selected as BART but

---

noted that while the costs and visibility improvements for Jim Bridger Units 1 and 2 "could potentially justify" SCR as BART, "because this is a close call and because the State had chosen to require SCR as a reasonable progress control, we believe deference to the State is appropriate in this instance." *See Id.* at 5048/3; *see also supra* Note 13.

[49] 79 Fed. Reg. at 5039-40 Tbls.2-4 (Laramie River); *id.* at 5040-41 Tbls.5-8 (Jim Bridger); *id.* at 5042 Tbls.9-11 (Dave Johnston); *id.* at 5043 Tbls.12-14 (Naughton); *id.* at 5044 Tbl.15 (Wyodak). Where EPA calculated two values for visibility improvement (Jim Bridger and Naughton), the highest value is displayed.

the Units were otherwise required to install SCR). *See supra* Note 48 (discussing special circumstances for Jim Bridger).

CHART 1: SCR Visibility Improvement and Incremental Cost Effectiveness

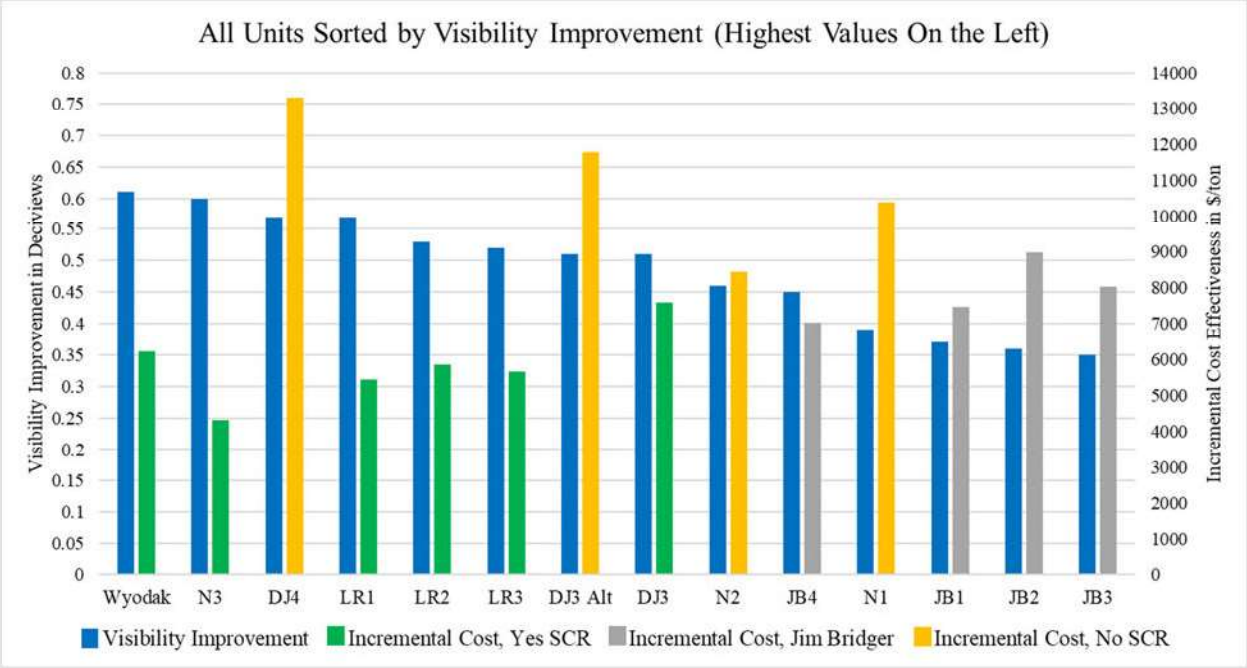
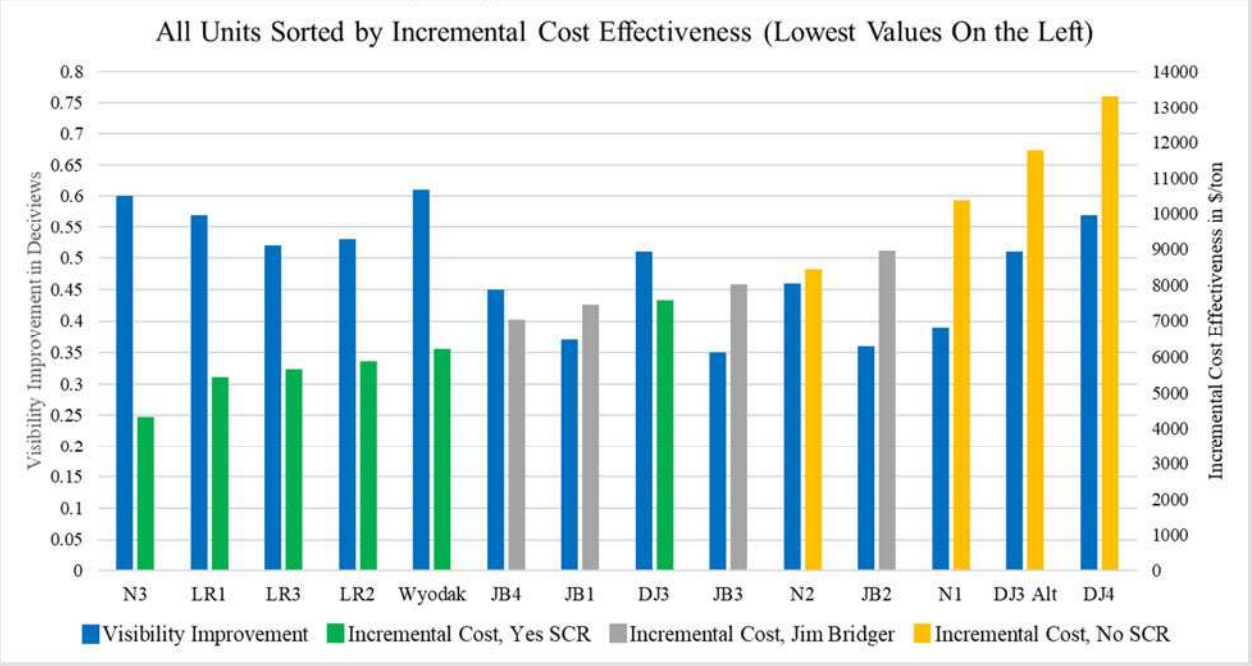


CHART 3: SCR Visibility Improvement and Incremental Cost Effectiveness



As demonstrated in these charts, the outcome of EPA's analysis of SCR for Naughton Units 1 and 2 is generally consistent with the outcome of EPA's analysis of SCR for the other BART Units in the Final Rule.

After reviewing the revised cost and visibility information for Naughton Units 1 and 2, EPA ultimately concluded that the visibility improvements that would be gained through SCR did not justify the incremental cost-effectiveness figures. EPA's weighing of the incremental cost effectiveness of SCR is endorsed by the plain language of the BART Guidelines.[50] The BART Guidelines instruct states conducting a cost effectiveness analysis to "consider the incremental cost effectiveness in combination with the average cost effectiveness when considering whether to eliminate a control option." 40 C.F.R. pt. 51, App. Y, IV.D.4.e.1. The BART Guidelines also explicitly caution states "not to misuse" the evaluation of cost effectiveness, and provide the following illustration:

> For example, you may be faced with a choice between two available control devices at a source, control A and control B, where control B achieves slightly greater emission reductions. The average cost . . . for each may be deemed to be reasonable. However, the incremental cost . . . of the additional emissions reductions to be achieved by control B may be very great.

[50] Although the BART Guidelines are not mandatory for Units at power plants the size of Naughton, they are "helpful guidance" for determining BART for Units at smaller power plants. *See supra* Statement of the Case Part A.2.a at 10; Argument Part II.A.

Id. at e.5. The BART Guidelines instruct that, in such an instance, "it may be inappropriate to choose control B, based on its high incremental costs, even though its average cost may be considered reasonable." *Id.*

This illustration describes the precise situation at Naughton Units 1 and 2. The difference in visibility improvement at the Bridger Wilderness Area between SNCR and SCR at Naughton Unit 1 is only 0.09 deciviews, and at Naughton Unit 2 is only 0.08 deciviews. Moreover, the incremental cost effectiveness of SCR is many thousands of dollars more than the next most stringent control—at Naughton Unit 1, the incremental cost effectiveness of SCR is $10,384/ton, and at Naughton Unit 2, the incremental cost effectiveness of SCR is $8,440/ton.[51]

Contrary to Conservation Organizations' contention, EPA's weighing of the high incremental cost in its analysis is permissible. Conservation Organizations'

---

[51] In a footnote, Conservation Organizations criticize EPA for pointing to the high incremental cost of SCR when EPA also rejected the next most stringent control, SNCR, arguing that EPA cannot use incremental cost to reject the addition of SCR in this situation. *See* Conservation Orgs. Br. at 28 n.13. Yet EPA's top-down approach—comparing the incremental costs of SCR to SNCR—is specifically endorsed by the BART Guidelines. *See* 40 C.F.R. pt. 51, App. Y, IV.D.4.e.1 (stating that the "incremental cost effectiveness calculation compares the costs and performance level of a control option to those of the next most stringent option"). Here, as described above, the incremental cost effectiveness figures for SCR are significantly more than those for SNCR and obtain little additional visibility benefit over SNCR (or even Combustion Controls). *See* Final Rule, 79 Fed. Reg. at 5043 Tbls.12-13; *supra* Chart 2 at 133 (incremental visibility improvement). While cost-effective, SNCR obtained even less visibility benefit over Combustion Controls (0.04 and 0.06 for Units 1 and 2 respectively) and was rejected on that ground. *See* 79 Fed. Reg. at 5043, 5050.

reliance on *American Corn Growers Association v. EPA*, 291 F.3d 1 (D.C. Cir. 2002) and *National Parks Conservation Association v. EPA*, 803 F.3d 151 (3d Cir. 2015) is misplaced. *American Corn Growers* involved a challenge to the original Haze Rule because, among other things, that rule treated the analysis of visibility improvement differently from the other statutory factors by requiring states to consider the degree of visibility improvement from BART on a group of sources rather than requiring a source-specific analysis as required for the other four factors. 291 F.3d at 5-9. The court concluded that such a requirement was impermissible because it could require BART controls for sources without evidence that each source contributed to visibility impairment. *Id.* at 7-8. In reaching that conclusion, the court explicitly stated that all five of the statutory factors "inform the states' inquiries into what BART controls are appropriate for particular sources. Although no weights were assigned, the factors were meant to be considered together." *Id.* at 6.

In revising the Haze Rule, EPA maintained that "as the CAA does not specify how the State should take these factors into account, the States are free to determine the weight and significance to be assigned to each factor," just as EPA is free to do when standing in a state's shoes when promulgating a FIP. *See* 70 Fed. Reg. at 39123/3 (explaining that the "estimate of visibility improvement does not by itself dictate the level of control a State would impose on a source"); *see also id.*

at 39130/1 ("deciview improvement must be weighed among the five factors, and States are free to determine the weight and significance to be assigned to each factor.").

National Parks Conservation Association also does not support Conservation Organizations' position that the cost factor cannot be given substantial weight in the analysis. In that case, EPA had approved a state's SIP even though EPA found multiple flaws with the state's analysis, including analysis of cost effectiveness and visibility impacts. 803 F.3d at 163-66. In light of the flaws that EPA identified, the court reasoned that EPA had not provided a sufficient explanation for its action. *Id.* at 167. Here, however, where EPA found fault with the State's analysis, EPA conducted and sufficiently explained its own analysis.

In sum, EPA reasonably evaluated the State's BART determinations for Naughton Units 1 and 2, and concluded that they met the applicable requirements of the CAA and the Haze Rule. EPA did not require the addition of SCR based on the high incremental costs of SCR, EPA's evaluation of the visibility benefits to be gained by each control option, and EPA's conclusion that the other three factors were not determinative. Thus, because EPA reasonably determined that Wyoming's BART determination for Naughton Units 1 and 2 met applicable requirements, the Conservation Organizations' first argument should be rejected.

B. EPA did not apply a retrofit factor to the cost estimates for SCR.

Conservation Organizations' second argument—that EPA chose an arbitrary retrofit factor in its cost estimates for Naughton Units 1 and 2—misunderstands the facts. In the Final Rule, EPA did not base its cost estimates for Naughton Units 1 and 2 on Integrated Planning Model ("IPM") cost estimates, nor did EPA add a retrofit difficulty factor to the cost estimates. Instead, EPA used vendor estimates provided by PacifiCorp, which already included retrofit costs. *See* 79 Fed. Reg. at 5134 ("PacifiCorp received bids from vendors and EPA has incorporated information from these bids into its revised cost estimates."). The Andover Report and its supporting spreadsheets explain EPA's revised cost analysis in more detail. *See generally* JA Vol. VIII, JA002110-66, Andover Report; JA Vol. IX, JA002167-93, Andover Report Spreadsheets.[52]

As the Andover Report explains, for Combustion Controls, "if the capital and operating cost estimates by the users were available, they were used. If not, IPM cost estimates were used." JA Vol. VIII, JA002115. "*Except for* Laramie River Units 1-3, Dave Johnston 3 and *Naughton 1 and 2*, [SCR] capital cost is

[52] As noted in the table of contents for the Joint Appendix, the Microsoft Excel version of this file was also submitted to the Court on CD-ROM. It is also available for download at https://www.regulations.gov/document/EPA-R08-OAR-2012-0026-0241 ("Wyoming EGU BART and Reasonable Progress Costs- 10-28-2013").

estimated using the IPM algorithms with retrofit factors adjusted on a unit by unit basis." *Id.* JA002117 (emphases added); *see also* JA Vol. VIII, JA002002, Letter from Babcock & Wilcox to PacifiCorp (providing vendor estimates of $66,500,000 for Naughton Unit 1 and $66,100,000 for Naughton Unit 2); JA Vol. IX, JA002175, Andover Report Spreadsheets, (using the same numbers in cells Q36 and R36 of tab entitled "NO_X – SCR_20").[53] Indeed, the fact that EPA did not use IPM cost estimates for Naughton Units 1 and 2 is further demonstrated by a comparison of different tabs in the Andover Report Spreadsheet and the cost estimates depicted in the Final Rule notice.

In particular, the tab "Naughton_20" includes the estimates for all three Units consistent with the Final Rule notice. *Compare* JA Vol. IX, JA002186 *with* 79 Fed. Reg. at 5043 Tbls.12-14. The underlying formulas in the "Naughton_20" tab cells that project the total cost per year for SCR for Units 1 and 2 (cells D18 and D39) show that those values were inserted from the "NO_X – SCR_20" tab cells Q126 and P126, which were calculated using vendor estimates of $66,500,000 for Naughton Unit 1 and $66,100,000 for Naughton Unit 2, *see* underlying formulas in "NO_X – SCR_20" tab cells Q49, R49, Q63, R63, Q88, R88, Q126, R126. The calculations using the vendor-estimated costs for Naughton Units 1 and 2 do not

[53] The tab, row, and column identifiers only appear in the Excel version. *See supra* Note 52.

incorporate the 1.3 retrofit factor. *See generally* underlying calculations in "NO_X – SCR_20" tab cells Q36-127, R36-127.[54]

EPA's approach of using the vendor-estimated costs in its cost calculations is specifically endorsed by the BART Guidelines, which state that the "basis for equipment cost estimates also should be documented, either with data supplied by an equipment vendor (*i.e.*, budget estimates or bids) or by a referenced source." *See* 40 C.F.R. pt. 51, App. Y, IV.D.4.a.5. Accordingly, because the Final Rule's cost values for Naughton Units 1 and 2 do not include a retrofit factor, EPA's earlier use of a retrofit factor is not at issue.

Notably, EPA did rely on costs of SCR calculated using IPM and adding a retrofit factor for several other Units in the Final Rule, including Naughton Unit 3, for which EPA approved Wyoming's selection of BART consistent with SCR.

---

[54] Further, the tab "Naughton_20_IPM" includes cost estimates based on IPM that incorporate the 1.3 retrofit factor for the three Naughton Units. JA Vol. IX, JA002185. In the "Naughton_20_IPM" tab, "Total Cost/year" for "CC and SCR" is the sum of the "Total Cost/year" for "Comb Control (CC)," and "SCR." The SCR total cost/year values, i.e., cell D18 for Naughton Unit 1 and cell D39 for Naughton Unit 2, were inserted from the "NO_X – SCR_20" tab—cells O126 and P126 respectively, which included the 1.3 retrofit factor. *See* underlying formulas in "Naughton IPM" tab, cells D18, D39; "NO_X – SCR_20" tab cells O36, P36, O82, P82, O78, P78, O88, P88, O126, P126. Notably, the cost estimates for Units 1 and 2 do not match those displayed in the Final Rule notice, while the cost estimates for Unit 3 are consistent. *Compare Id.* JA002185 "CC and SCR" column, "Total Cost/year" and "Incremental Rate" rows *with* 79 Fed. Reg. at 5043 Tbls.12-14 "LNBs with OFA and SCR" row, "Annualized costs" and "Incremental cost effectiveness" columns.

Conservation Organizations do not challenge EPA's use of a retrofit factor for any other Units.[55] Even if, as Conservation Organizations contend, EPA had added a retrofit factor to its IPM calculations for Naughton Units 1 and 2, the resulting cost-effectiveness values would not have been higher than the values EPA calculated using the vendor estimates. *See* JA Vol. IX, JA002185, "Naughton_20_IPM" tab (showing "Incremental rate," (i.e., incremental cost-effectiveness value) for SCR of $7,985 for Naughton Unit 1 and $8,171 for Naughton Unit 2). Thus, Conservation Organizations cannot show that use of a retrofit factor would have unreasonably skewed EPA's cost estimates upward, or that but-for application of a retrofit factor, EPA would have chosen to require SCR.

In sum, EPA's approval of Wyoming's BART determinations for Naughton Units 1 and 2 is consistent with the statute and Haze Rule, well-supported by the record, and well-explained. Accordingly, the Court should deny Conservation Organizations' challenges to EPA's Final Rule.

---

[55] Although EPA did not use a retrofit factor in its cost estimates for Naughton Units 1 and 2, in response to comments, EPA defended its prior use of a retrofit factor of 1.3. *See* 79 Fed. Reg. at 5154/1. Inclusion of this explanation makes sense because the choice of a retrofit factor for a particular Unit can be explained in reference to the retrofit factor selected for other Units, so the proposed retrofit factor was relevant to the retrofit factors actually applied at other Units. *See id.* at 5153. Further, the fact that EPA's response to the comment did not explain EPA's use of vendor-quote-based calculations for Naughton Units 1 and 2 is immaterial. *See Oklahoma*, 723 F.3d at 1212 n.6.

CONCLUSION

For the foregoing reasons the petitions for review should be denied.

Respectfully submitted,

s/ *Amanda V. Lineberry*

TODD KIM
Assistant Attorney General

SONYA J. SHEA
Environment and Natural Resources Division
U.S. Department of Justice
999 18th Street
South Terrace, Suite 370
Denver, CO 80202
(303) 844-7231
sonya.shea@usdoj.gov

AMANDA V. LINEBERRY
Environment and Natural Resources Division
U.S. Department of Justice
Post Office Box 7611
Washington, D.C. 20044
(202) 616-5376
amanda.lineberry@usdoj.gov

January 27, 2023
DJ Number 90-5-2-3-20130

STATEMENT REGARDING ORAL ARGUMENT

Pursuant to Tenth Circuit Rule 28.2(C)(2), Respondent states that oral argument is requested because of the important statutory and regulatory questions raised in the petitions for review.

CERTIFICATE OF COMPLIANCE

I hereby certify:

1. Pursuant to Federal Rule of Appellate Procedure 32(g), this document complies with the type-volume limitation because this brief complies with the word limitation of this Court's September 23, 2022 Order. Excluding the parts of the document exempted by Federal Rule of Appellate Procedure 32(f) and 10th Cir. R. 32(B), this document contains 34,037 words. I relied on the word count of the word processing system used to prepare this document, and then added the words in the imbedded chart images that the word processing system does not count.

2. This document complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type-style requirements of Rule 32(a)(6) because this document has been prepared in a proportionally spaced typeface using Microsoft Word 2016 in 14-point Times New Roman font.

s/ *Amanda V. Lineberry*
AMANDA V. LINEBERRY

Counsel for Respondents

CERTIFICATE OF DIGITAL SUBMISSION

I hereby certify that with respect to the foregoing:

(1) all required privacy redactions have been made per 10th Cir. R. 25.5;

(2) if required to file additional hard copies, that the ECF submission is an exact copy of those documents; and

(3) the digital submissions have been scanned for viruses with the most recent version of a commercial virus scanning program, Windows Defender Antivirus Version 1.381.2799.0 (updated January 27, 2023), and according to the program are free of viruses.

s/ *Amanda V. Lineberry*
AMANDA V. LINEBERRY

Counsel for Respondents

CERTIFICATE OF SERVICE

I hereby certify that on January 27, 2023, I electronically filed the foregoing using the court's CM/ECF system, which will send notification of such filing to all counsel of record.

s/ *Amanda V. Lineberry*
AMANDA V. LINEBERRY

Counsel for Respondents