ORAL ARGUMENT SCHEDULED FOR APRIL 17, 2017

No. 15-1381 (and consolidated cases)

IN THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

STATE OF NORTH DAKOTA, et al.,

Petitioners,

v.

U.S. ENVIRONMENTAL PROTECTION AGENCY, et al.,

Respondents.

On Petition for Review of Final Agency Action of the U.S. Environmental Protection Agency 80 Fed. Reg. 64,510 (Oct. 23, 2015)

STATE OF NORTH DAKOTA'S REPLY

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TABLE OF CONTENTS

UMEN	NT
I.	Canada's Boundary Dam does not "adequately demonstrate" the BSER at new lignite-fueled EGUs in North Dakota
II.	EPA asserts that the BSER is "achievable" for lignite, but only if the lignite is dried first
III.	EPA should have subcategorized lignite, establishing standards that reflect its unique characteristics

Page 3 of 16

TABLE OF AUTHORITIES

Cases

<i>Essex Chem. Corp. v. Ruckelshaus</i> , 486 F.2d 427 (D.C. Cir. 1973)	1
Nat'l Lime Ass'n v. EPA, 627 F.2d 416 (D.C. Cir. 1980)	4,7
Portland Cement Ass'n, v. Ruckelshaus, 486 F.2d 375 (D.C.Cir. 1973)	1
Sierra Club v. Costle, 657 F.2d 298 (D.C. Cir. 1981)	1, 4, 7
Steger v. Def. Investigative Serv., 717 F.2d 1402 (D.C. Cir. 1983)	8
United States v. Minnkota Power Coop., Inc., 831 F. Supp. 2d 1109 (D.N.D. 2011)	2

Statutes

42 U.S.C. § 15962(i)	
CAA § 112	
CAA § 307(d)(9)	
N.D. Cent. Code § 54-17.5-01	6

Other Authorities

40 C.F.R. § 60.5580	4
40 C.F.R. Subpart Y	
77 Fed. Reg. 9304, 9306	8
77 Fed. Reg. 9304, 9379 (Feb. 16, 2012)	2
80 Fed. Reg. 64,512	8
80 Fed. Reg. 64,513	4, 5, 7
CBC News, "Sask. Carbon capture plant doubles the price of power," http://www.cbc.ca/news/canada/saskatchewan/carbon-capture- power-prices-1.3641066	3

Lignite Energy Council, Power Plants, available at	
https://lignite.com/mines-plants/power-plants/	3
National Coal Council, "Reliable and Resilient: The Value of Our Existing Coal Fleet,"at 59, available at	
http://www.nationalcoalcouncil.org/reports/1407/NCCValueExistingCoalFleet.pdf	6

GLOSSARY

BSER	Best System of Emission Reduction
CAA	Clean Air Act
CCS	Carbon Capture and Sequestration
CO_2	Carbon Dioxide
$\rm CO_2/MWh$	Carbon Dioxide per Megawatt-hour
EGU	Electric Generating Unit
EPA	United States Environmental Protection Agency
EPAct	Energy Policy Act of 2005
JA	Joint Appendix
RIA	EPA, Regulatory Impact Analysis for the Final Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units
Rule	U.S. Environmental Protection Agency, Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units, Final Rule, 80 Fed. Reg. 64,510 (Oct. 23, 2015)

INTRODUCTION AND SUMMARY OF THE ARGUMENT

As in the preamble to its Rule, EPA's response brief offers up a patchwork of partial, small-scale, hypothetical demonstrations as purported "proof" that its BSER is "adequately demonstrated" and that its new 1,400 CO_2/MWh performance standard for all new coal-fired EGUs can be met through application of the BSER, even at lignite-fueled EGUs. Despite its lengthy brief, EPA still fails to show that the *entire* BSER is *commercially available* for implementation at new, *full-scale*, lignite-burning EGUs and that the standard is *achievable* for new lignite-burning EGUs.

Instead of pointing to a single real example of where the Rule's BSER is adequately demonstrated—that is, commercially available, *Sierra Club v. Costle*, 657 F.2d 298, 364 (D.C. Cir. 1981); *Portland Cement Ass'n, v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973), "reasonably efficient," *Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427, 433 (D.C. Cir. 1973), and not "unreasonably costly," *Costle*, 657 F.2d at 343—EPA instead rests its rebuttal to North Dakota on one unit, SaskPower's Boundary Dam Unit #3, a Canadian government-subsidized unit operating at approximately onefourth to one-half the megawatt capacity of a typical lignite-fueled unit in North Dakota. EPA cannot put forth any better example, because none exist.

EPA's effort to bypass Congress and enact legislation-by-regulation—which has the practical effect of ensuring lignite coal has no future in America's energy portfolio—must be rejected, as it is unlawful, arbitrary and capricious, and will devastate the State of North Dakota, where coal accounts for 99.4 percent of the

1

State's fossil-fuel-powered electricity generation—nearly all of that from lignite. Both EPA and the courts have recognized lignite coal has unique characteristics that present distinctive technological challenges, including with respect to emission-control technologies. *See* National Emission Standards for Hazardous Air Pollutants From Coal and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units, 77 Fed. Reg. 9304, 9379 (Feb. 16, 2012) ("MATS Rule"), JA4851; *see also United States v. Minnkota Power Coop., Inc.*, 831 F. Supp. 2d 1109, 1125 (D.N.D. 2011). The result of this Rule is a *de facto* ban on new power plants fueled by North Dakota lignite. N.D. Br. at 6 (citing Glatt Decl. ¶¶ 7, 9).

EPA's failure to account for the distinctness of lignite in its achievability analysis—or, consequently, to show that the Rule's performance standard can be met by the "industry as a whole"—makes the Rule invalid, and EPA's failure to subcategorize for lignite violates CAA § 307(d)(9) because it is arbitrary and capricious.

ARGUMENT

I. Canada's Boundary Dam does not "adequately demonstrate" the BSER at new lignite-fueled EGUs in North Dakota.

EPA gives short shrift to North Dakota's demonstration that EPA failed to properly consider lignite by glibly asserting that "CCS is adequately demonstrated for lignite-burning units" because "the Boundary Dam facility itself burns lignite." Resp. Br. at 81. North Dakota and other petitioners have discussed the many reasons why Boundary Dam fails to "adequately demonstrate" the BSER—including its exorbitant cost implications,¹ the fact that it was heavily subsidized by the Canadian federal government and thus violates the Congressionally-stated purpose of EPAct,² the fact that it does not employ all components of the BSER, ³ and its myriad operational and financial failings.⁴ Perhaps the most compelling distinction that demonstrates EPA's misplaced reliance on Boundary Dam is that unit's diminutive size. At 110 net megawatts, Boundary Dam is dwarfed by five of the six lignite-fueled EGUs in North Dakota: Antelope Valley Station (two 450-megawatt units), Coal Creek Station (two 550-megawatt units), Coyote Station (one 420-megawatt unit), Leland Olds Station (one 447-megawatt unit, one 222-megawatt unit), and Milton R. Young Station (one 455-megawatt unit, one 250-megawatt unit).⁵ New EGUs would most likely be built

¹ See e.g., CBC News, "Sask. Carbon capture plant doubles the price of power," http://www.cbc.ca/news/canada/saskatchewan/carbon-capture-power-prices-1.3641066.

² N.D. Br. at 11 (citing 42 U.S.C. § 15962(i)).

³ Non-State Pet'rs Br. at 26–30.

⁴ N.D. Br. at 11–12.

⁵ See Lignite Energy Council, Power Plants, available at https://lignite.com/minesplants/power-plants/

on the scale of the current existing EGUs, particularly the larger ones, and cannot count on the support of large government subsidies.

EPA cannot rationally extrapolate from Boundary Dam to conclude that the BSER is "adequately demonstrated" when it is only one-fourth to one-half the generating capacity of an existing EGU in North Dakota, *see Nat'l Line Ass'n v. EPA*, 627 F.2d 416, 433 (D.C. Cir. 1980) (rejecting standard that did not account for "regional variations"), and does not even attempt to explain how this comparison could be valid. EPA fails to demonstrate that the standards derived from the BSER are "achievable" by sources in "the industry as a whole," *id.* at 429, 431 & n.46, 433. Stated differently, EPA must evaluate the "demonstration of *commercial-scale* systems"—a "crucial" legal issue that must be considered in any BSER determination. *Costle*, 657 F.2d at 341, n.157 (emphasis added). EPA's failure to do that renders the Rule unlawful.

II. EPA asserts that the BSER is "achievable" for lignite, but only if the lignite is dried first.

Because EPA explicitly seeks to regulate lignite-fueled EGUs under the Rule— "[c]oal means all solid fuels classified as anthracite, bituminous, subbituminous, or *lignite* . . . ," 40 C.F.R. § 60.5580 (emphasis added)— the agency must show that the BSER it selected is "adequately demonstrated" for lignite-fueled EGUs and that the standard of performance is "achievable" for lignite-fueled EGUs. Instead of doing that, EPA assumes only the use of "dried lignite" in discussing the achievability of employing its BSER, *see* 80 Fed. Reg. at 64,513, JA5, and fails to conduct *any* analysis of achievability for units fueled by virgin, non-dried lignite, which, as EPA indirectly acknowledges, is higher in moisture and produces more CO_2 emissions. *Id.*, n.7, JA5 ("Drying the lignite prior to combustion in the boiler is ... an effective way to ... reduce the CO_2 emissions from lignite-fired power plants") (citation omitted).

EPA now sidesteps the reality of its omission, stating that "EPA is not obligated to incorporate less efficient and more polluting means of production into its Best Systems." Resp. Br. at 86. That might be true if EPA was considering two different "means of production," but here, EPA is considering the use of lignite in its natural state, which is virgin, not dried. Virgin lignite is the baseline state in which EPA seeks to regulate it under the Rule. Yet EPA does not evaluate virgin lignite; it only addresses dried lignite, which is virgin lignite after being put through additional (apparently now mandatory) chemical processing for which EPA's own cited studies confess "cost and techno-economic information is limited." *See id.* at 64,513, n.7, JA5 (citation omitted). As a result, EPA has effectively established an entirely separate BSER for EGUs burning lignite, and that BSER includes drying the lignite first. This leads to a host of material legal defects.

First, contrary to EPA's assertion, there is nothing in the record that supports the commercial availability and effectiveness of lignite drying for use in newly

5

constructed EGUs. EPA claims that "both the National Coal Council and the IEA Clean Coal Centre have concluded that '[c]oal drying with waste heat is a commercially available option." Resp. Br. at 85 (citation omitted). However, EPA glaringly omits the second part of that actual quotation, presumably because it contradicts the agency's argument:

Coal drying with waste heat is a commercially available option, *but one that not every plant can effectively deploy.*⁶

Second, by mandating that lignite-fueled EGUs dry lignite prior to combustion, the Rule changes the definition of the source category it regulates—"electric generating units"—to include coal preparation and processing. However, coal drying facilities are subject to their own separate new source performance standards.⁷ As a result, EPA's attempt to subject lignite-fueled EGUs to additional, rigorous, and undemonstrated standards must be rejected—especially in this instance in which it grossly prejudices North Dakota, where lignite is the primary electric utility fuel source, and where the State has long promoted lignite through a statutory stateindustry partnership aimed at protecting and enhancing future use of North Dakota's abundant lignite resources. *See* N.D. Cent. Code § 54-17.5-01.

⁶ The National Coal Council, "Reliable and Resilient: The Value of Our Existing Coal Fleet," at 59, available at

http://www.nationalcoalcouncil.org/reports/1407/NCCValueExistingCoalFleet.pdf (emphasis added).

⁷ See 40 C.F.R. Subpart Y., Standards of Performance for Coal Preparation and Processing Plants.

EPA has failed to discuss "achievability" in the context of virgin, non-dried lignite, and that omission is fatal to the Rule, because the performance standard mandated by the Rule is not "representative of potential industry-wide performance, given the range of variables that affect the achievability of the standard," *Costle*, 657 F.2d at 377, or of the "regional variations" of the coal types native to North Dakota. *Nat'l Lime*, 627 F.2d at 441–43. EPA's claim that the standard for new coal-fueled units is achievable "for all fuel types, under a wide range of conditions, throughout the United States," 80 Fed. Reg. at 64,513, JA5, therefore lacks the necessary record support and should not be accepted.

III. EPA should have subcategorized lignite, establishing standards that reflect its unique characteristics.

EPA claims that its decision in the Rule not to subcategorize lignite should be afforded deference, despite the fact that EPA took the opposite approach in the MATS Rule, which is EPA's most recent—and most significant—rule imposing emission limits on new EGUs prior to this Rule. EPA says its decision to subcategorize lignite in the MATS Rule should simply be disregarded here because it "was compelled by the different statutory provisions being implemented [under CAA 112]." While the MATS Rule arose under a different provision of the CAA, the MATS Rule still regulated emissions from *new coal-fired Electric Utility Steam Generating Units* based on the fuel characteristics of the coal utilized—precisely the same sources (burning the same coal types) it seeks to regulate under this Rule. That makes the MATS Rule a highly relevant precedent for this case. There is no rational basis for treating lignite differently under these two provisions of the CAA.

Similarly, EPA's contention that the MATS Rule should be disregarded because the agency "declined to subcategorize for lignite with respect to numerous other pollutants regulated under the rule," *id.*, fails to pass muster. The primary purpose of the MATS rule was to establish uniform emissions-control standards to address the presence of *mercury emissions* in the environment,⁸ and EPA's decision to subcategorize lignite in the MATS Rule was, as the agency admits, because "the level of *mercury*" emissions achieved in practice for lignite-burning units was higher than for other coal types, so a subcategory was warranted in that narrow circumstance." Resp. Br. at 89-90 (quotations omitted) (emphasis added). The purpose of the present Rule is to "address carbon pollution" in the environment, 80 Fed. Reg. 64,512 (emphasis added), and EPA admits that lignite-fueled EGUs produce more carbon pollution than EGUs fueled with other coal types, see e.g., RIA at 2-26, JA2829. Thus, EPA's stated rationale for subcategorizing mercury in the MATS Rule applies here with equal force. These are undeniably similar situations, and EPA cannot "treat similar situations" dissimilarly and, indeed, can be said to be at its most arbitrary when it does so." Steger v. Def. Investigative Serv., 717 F.2d 1402, 1406 (D.C. Cir. 1983).

The only plausible explanation is that subcategorization would have revealed that the performance standard is not achievable for lignite-fueled EGUs. N.D. Br. at

⁸ 77 Fed. Reg. 9304, 9305, JA4847.

13–15. By lumping lignite with other coal types, EPA conveniently but improperly avoided that fact, and adopted a Rule that grossly penalizes North Dakota's continued ability to rely on low-cost and native lignite-fueled baseload generation facilities to meet the State's substantial projected increased demand for electricity. By refusing to subcategorize lignite coal, the Rule is arbitrary and capricious under CAA § 307(d)(9).

CONCLUSION

The State of North Dakota's petition should be granted, and the Rule should be vacated.

CERTIFICATE OF COMPLIANCE

Pursuant to Rule 32(a)(7)(C) of the Federal Rules of Appellate Procedure and Circuit Rules 32(a)(1) and 32(a)(2)(C), I hereby certify that the foregoing State of North Dakota's Reply contains 1,998 words, as counted by a word processing system that includes headings, footnotes, quotations, and citations in the count, and therefore is within the word limit set by the Court.

Dated: February 2, 2017

/s/ Paul M. Seby

CERTIFICATE OF SERVICE

I hereby certify that on this 2nd day of February, 2017, a copy of the foregoing

State of North Dakota's Reply was served electronically through the Court's

CM/ECF system on all ECF-registered counsel.

/s/ Paul M. Seby