

BEFORE THE ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING

FILED

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In the Matter of:)
Basin Electric Power Cooperative) Docket No. 07-2801
Dry Fork Station,)
Air Permit CT - 4631)

Jim Ruby, Executive Secretary
Environmental Quality Council

PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW
(Claim VIII – SO₂ Increment)

The Wyoming Department of Environmental Quality Air Quality Division (DEQ/AQD) by and through the Office of the Attorney General, and Basin Electric Power Cooperative, Inc. (Basin Electric) through its counsel, Holland & Hart LLP, respectfully submit the following PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW in the above-captioned permit appeal directed to the cross-motions for summary judgment filed by all parties on Protestants' claims set forth in paragraphs 67-69 of their "Protest and Petition for Hearing."

I. INTRODUCTION

On November 10, 2005, Basin Electric submitted its air construction permit application to Wyoming DEQ to construct the Dry Fork Station. Schlichtemeier Aff., ¶ 15; Schlichtemeier Aff., Ex. D (Ex. 1 to DEQ's Motion for Partial Summary Judgment (DEQ Motion)).

On October 15, 2007, after extensive review and comment from Protestants and numerous other members of the public, including the Environmental Protection Agency (EPA), the Director of the DEQ and the Administrator of the Air Quality Division issued Air Quality Permit CT-4631 (Permit) to Basin Electric to construct the Dry Fork Station approximately seven (7) miles north of Gillette, Wyoming. Schlichtemeier Aff., ¶¶ 32-33, Ex. T and Ex. U.

On November 1, 2007, Sierra Club, Powder River Basin Resource Council, and Wyoming Outdoor Council (collectively Protestants) filed a petition for hearing before the Environmental Quality Council (EQC) in response to the permit granted to Basin Electric. (Protestant's Pet. for Hr'g at 1).

A hearing (Hearing) was held on motions for summary judgment filed by all parties on September 29, 2008, and completed on September 30, 2008, at the Wyoming Game and Fish Casper Regional Building, Pronghorn Room, 3030 Energy Lane, Suite 100, Casper, Wyoming. Protestants, Sierra Club, Powder River Basin Resource Council, and the Wyoming Outdoor Council were present and represented by their Attorneys, James S. Angell, Robin Cooley, Andrea L. Zaccardi of Earthjustice and Reed Zars. Respondent, Basin Electric was present and represented by its attorneys, Patrick R. Day and Mark R. Ruppert of Holland & Hart LLP. Respondent DEQ/AQD was present and represented by Assistant Attorneys General, Nancy E. Vehr and Luke J. Esch of the Wyoming Attorney General's Office. The Hearing was held before

Hearing Examiner Deborah A. Baumer, and EQC member and presiding officer F. David Searle, and EQC members Dr. Fred Ogden, Tim Flitner, Dennis M. Boal, John N. Morris, and Thomas Coverdale. The proceedings were recorded by court reporter Randy A. Hatlestad from Wyoming Reporting Service, Inc.

Protestants' allege that ambient air quality modeling demonstrates that emissions from Basin Electric's Dry Fork Station will "cause or contribute to an exceedance of the applicable SO₂ increment." Petition at ¶ 67-69. DEQ responds by arguing that the modeling demonstrated that Basin Electric's emissions will never have more than a legally *de minimis* impact, and therefore the permit was properly issued. As there is no dispute as to the underlying facts, all parties in this appeal brought motions for summary judgment on the SO₂ increment issue. The issue before the Council presents a question of law.

The Parties all submitted extensive briefs, supporting affidavits, and excerpts from the record created before the AQD, and the issues were thoroughly argued. The EQC then presented numerous questions on the issues to the parties, and then conducted a public deliberation and vote on the cross-motions. After such deliberation and vote for the reasons set forth in the briefs and exhibits of DEQ and Basin Electric, the EQC hereby FINDS AND ORDERS as follows on Count VIII of Petition:

II. FINDINGS OF FACT

1. On November 10, 2005, Basin Electric submitted its air construction permit application to DEQ to construct the Dry Fork Station. *See* Schlichtemeier Aff., ¶ 15; Schlichtemeier Aff., Ex. D.

2. As a part of the permit application, Basin Electric conducted an analysis of the air quality impacts on Class I areas located within 300 kilometers (km) of the proposed Dry Fork Station. *See* Schlichtemeier Aff., Ex. D at DEQ/AQD Bates No. 000138; Rairigh Aff., ¶ 28 (Ex. 2 to DEQ Motion). One such Class I area is the Northern Cheyenne Indian Reservation (NCIR) located in Montana, near the Colstrip Power Plant (Colstrip).

3. No dispute exists as to the model and methodology used for the air quality dispersion modeling performed by Basin Electric and DEQ, or the correctness of the application of that modeling. The parties agree that the modeling was done properly.

4. There are two distinct phases of air dispersion modeling: (1) the preliminary analysis (also known as a screening analysis); and (2) if necessary, a full impact analysis (cumulative modeling). The screening phase of preliminary analysis showed that Dry Fork Station's emissions, by themselves, had no impact in any area above the significant impact level (SIL) for any Class I areas, except for SO₂ in the NCIR. EPA guidance provides that no further modeling using a full impact (cumulative) analysis is necessary if the screening phase of preliminary analysis shows no impacts from the proposed source above a SIL, because in that case the proposed source's impact is considered insignificant. NSR Manual at C.24 (Ex. 2 to Basin Electric's Memo in Support of Motion for Summary Judgment (Basin Electric Brief)).

5. In support of its Permit application and during the permit review process, Basin Electric conducted cumulative modeling of emissions from all increment-consuming sources

within 300 kilometers of the NCIR in Montana using both the 90th percentile of actual emissions and maximum actual emissions from the primary source of pollution affecting the NCIR, Colstrip Units 3 and 4 (Colstrip) in Montana near the NCIR. Maximum allowable emissions were used for smaller sources including the proposed Dry Fork Station. This cumulative modeling of actual emissions from Colstrip and maximum allowable emissions from all other sources, including those projected for the Dry Fork Station, demonstrated that no sulfur dioxide (SO₂) increment exceedances would occur at the NCIR from Dry Fork Station or any other modeled source of emissions. *See* Rairigh Aff., ¶ 30; Schlichtemeier Aff., Ex. D at DEQ/AQD Bates Nos. 000142-143 (sources included in cumulative increment modeling); Expert Report of Robert L. Pearson at 8-14 (Ex. 14 to Basin Electric Brief).

6. On March 28, 2006, after completing its second review of the permit application (Completeness Review No. 2), the DEQ/AQD requested that Basin Electric to model Colstrip Units 3 and 4 using the short-term permitted SO₂ emission rates (also referred to as “maximum allowable” or “potential to emit”) for those sources. DEQ also provided Basin Electric with a 1 km receptor grid to be used in further modeling analyses for the NCIR. *See* Schlichtemeier Aff., ¶ 18, Ex. G; Rairigh Aff., ¶¶ 33-36.

7. After DEQ required Basin Electric to conduct cumulative modeling using maximum allowable emissions from all increment consuming sources, including from Colstrip, the modeling using this conservative assumption rather than actual emissions predicted that there might be 47 possible SO₂ increment exceedances of the 5.0 microgram per cubic meter limit in the NCIR over the three year period modeled. As illustrated by the amount of increment consumed by Colstrip’s actual emissions, compared to actual emissions from all sources combined, practically all of modeled increment consumed was consumed by Colstrip. Expert Report of Robert L. Pearson at 10-12, Table 4, and Ex. 2 (Basin Electric Brief Ex. 14).

8. Because this modeling was done using maximum allowable emissions from Colstrip, and not actual emissions from Colstrip, the results of the modeling do not match actual air quality impacts on the NCIR, but rather hypothetical conservative scenarios. *Id.*

9. On 18 of the 47 occasions, Dry Fork Station’s modeled impact was zero. *Id.*

10. Of the remaining 29 occasions, when Dry Fork Station’s modeled theoretical contribution was greater than zero, the modeled impact of Dry Fork Station on 25 of these occasions was vanishingly small, typically between 0.0002 and 0.0009 micrograms per cubic meter (that is, between 200 and 900 trillionths of a gram per cubic meter). The other 4 occasions were all well below the SIL, which is used by EPA and DEQ to determine when a modeled impact is so tiny as to be legally *de minimis* because of its insignificance. The SIL level employed by EPA and DEQ for SO₂ is 0.2 micrograms per cubic meter. *Id.*

11. As a consequence, it is undisputed that the Dry Fork Station never had a modeled impact above SIL levels on those few days where theoretical exceedances were modeled using maximum allowable, rather than actual, emissions from Colstrip. All of Dry Fork’s modeled emissions impacts were *de minimis* under the test for determining *de minimis* impacts employed by EPA under the Clean Air Act (CAA) and by DEQ in its implementation of the CAA in

Wyoming, and even these *de minimis* impacts occurred only under DEQ's requested conservative modeling assumptions.

12. Modeling results demonstrate that by far the predominant cause of predicted exceedances of the Class I SO₂ increments in the NCIR was emissions from Colstrip. The modeling using maximum allowable emissions from Colstrip demonstrated that Colstrip was the primary reason for any predicted increment exceedances for SO₂ in the NCIR. *Id.*

13. The DEQ Director and DEQ Air Quality Division Administrator determined that the cumulative modeling results for SO₂ in the NCIR showed that the impact of emissions of SO₂ from Dry Fork Station were legally insignificant and thus not causing, contributing to, or impacting any allowable SO₂ increment in the NCIR. *See Rairigh Aff.*, ¶ 40; *Schlichtemeier Aff.*, Ex. J at DEQ/AQD Bates No. 000632.

14. In deciding to issue the permit to construct Dry Fork Station, the DEQ Director and Air Quality Division Administrator applied the Class I SIL of 0.2 micrograms per cubic meter to determine that Dry Fork Station's SO₂ impacts in the NCIR were never significant and were always *de minimis*. For the last 6 years, the DEQ has employed Class I SILs, in approximately 10 permit applications, as a screening tool to determine whether a proposed source would have a significant impact on a Class I area and whether cumulative modeling would then be required. These facilities include WYGEN 2, ExxonMobil, Solvay, Opal, OCI, Basin Electric Dry Fork, WYGEN 3, and Two Elk Unit 2. *See Rairigh Aff.*, ¶ 23.

15. DEQ has done so based on the reasoning that a *de minimis* threshold is needed to screen out potentially insignificant sources of emissions. DEQ has also previously employed SILs after cumulative modeling to determine a source's modeled impact was *de minimis*, consistent with EPA practice. *See Rairigh Aff.*, ¶¶ 22 and 23; *Schlichtemeier Aff.*, Ex. V, WyGen 2 Decision pp. 17-20.

16. The use of the Class II SILs in modeling assessments is well established in past DEQ PSD permitting decisions and has been used since implementation of the PSD program in 1980. *See Rairigh Aff.*, ¶ 21.

17. Although DEQ is the permitting authority for Dry Fork Station under Wyoming's State Implementation Plan (SIP) approved by EPA, EPA had the opportunity to comment on the draft Dry Fork Station permit and did make several comments on the draft permit before the final permit was issued. None of those comments related to the SO₂ increment in the NCIR. EPA has the responsibility to protect and the authority to regulate air quality in the NCIR. Having this responsibility and authority, EPA did not disagree with DEQ's use of SILs and a *de minimis* threshold to conclude that emissions from Dry Fork Station would not impact the SO₂ increment in the NCIR. *See Schlichtemeier Aff.*, Ex. T at DEQ/AQD Bates No. 004154-4157.

18. EPA proposed SILs for use in Class I areas in 1996 (61 Fed. Reg. 38,250, 38,338 (July 23, 1996)), and the level proposed for SO₂ for a 24-hour reading was 0.2 micrograms per cubic meter, which is only 4% of the small Class I increment. Most permitting agencies use these proposed Class I SILs in the permitting process. *See Deposition of Protestants' Expert Khanh Tran* at p. 51:15-18 (August 12, 2008) (Ex. 5 to DEQ Motion).

19. Requiring a proposed source to demonstrate zero impact on a modeled increment exceedance before DEQ could issue a PSD permit, instead of DEQ applying *de minimis* SIL levels to determine the significance of the predicted impact, would unnecessarily jeopardize development of other sources and economic development in Wyoming.

20. Protestants' expert witness was not aware of any permitting agency which does not use Class I SILs in the permitting process. *See* Tran Depo. at pp. 52:20-25, 53:1-4 (DEQ Ex. 5).

III. CONCLUSIONS OF LAW

1. Chapter II, Section 14 of the DEQ Rules of Practice & Procedure (DEQ RPP) makes the Wyoming Rules of Civil Procedure applicable to matters before the EQC. (DEQ RPP Ch. 2, § 14).

2. Summary judgment is appropriate if there is no genuine issue of material fact and the moving party is entitled to judgment as a matter of law. WYO. R. CIV. P. 56(b), (c).

3. Summary judgment procedures set out in WYO. R. CIV. P. 56 may apply to administrative cases. *Rollins v. Wyoming Tribune Eagle*, 2007 WY 28, ¶ 6; 152 P.3d 367, ¶ 6 (Wyo. 2007).

4. The purpose of summary judgment is to dispose of cases before trial that present no genuine issues of material fact. *Id.* A fact is material if proof of that fact would have the effect of establishing or refuting one of the essential elements of the cause of action or defense. *Id.*

5. Where there are no genuine issues of material fact, summary judgment concerns application of the law. *Bd. of County Comm'rs of County of Laramie v. City of Cheyenne*, 2004 WY 16, ¶ 8; 85 P.3d 999, ¶ 8 (Wyo. 2004).

6. Wyoming has a valid SIP approved by EPA to permit pollution emitting sources so long as they comply with the rules and regulations implemented by DEQ. 40 C.F.R. Part 52, Subpart ZZ (2007).

7. Pursuant to Wyoming's PSD regulations, DEQ is required to review major source facility applications to ensure that emissions from the proposed facility will not cause or contribute to an exceedance of ambient air quality standards or violations of any PSD air quality increments. WAQSR Ch. 6, §§ 2 and 4.

8. Since Dry Fork Station requires a PSD permit, Basin Electric was required to demonstrate to the Administrator's satisfaction that emissions from its proposed source would not cause significant deterioration in air quality, including an analysis of any impact on increments in any protected Class I area, including the NCIR. 40 C.F.R. § 51.166(k); WAQSR Ch. 6, §§ 2(c)(iii) and 4(b). This demonstration was done using air quality dispersion modeling prescribed by EPA. *See* EPA's New Source Review Workshop Manual (NSR Manual) at C.24 (Ex. 2 to Basin Electric Brief).

9. Protestants do not dispute the use of SILs to determine whether the second phase of cumulative modeling is required.

10. The purpose of the PSD program under both the federal CAA and the Wyoming Environmental Quality Act (WEQA) that implements the federal CAA is “to insure that economic growth will occur in a manner consistent with the preservation of existing clean air resources.” 42 U.S.C. § 7470(3); WYO. STAT. § 35-11-102. In enacting the WEQA (WYO. STAT. § 35-11-101, *et seq.*), “[t]he legislature knew that business and industry, essential to the state’s economic health, had to be maintained.” *State v. Platte Pipeline Co.*, 649 P.2d 208, 212 (Wyo. 1982).

11. EPA has established SILs that are used to determine when a modeled impact is “significant” enough to merit regulatory concern. According to EPA, the concept of a SIL is grounded on the *de minimis* principles described by the court in *Alabama Power Co. v. Costle*, 636 F.2d 323, 360 (D.C. Cir. 1979), affirming that air quality regulation does not require regulating trivial impacts that have no significance to air quality or the environment. 72 Fed. Reg. 54112, 54139 (Sep. 21, 2007). Modeled impacts below SILs are therefore considered by EPA to be legally trivial and effectively zero for increment consumption purposes.

12. SILs are routinely used by EPA and state air quality regulators to determine if a modeled impact on air quality is so trivial, or legally *de minimis*, that it has no effect on the environment. NSR Manual at C.52 (Basin Electric Ex. 2); Tran Depo. at pp. 52:22-25, 53:1-4 (DEQ Ex. 5).

13. EPA proposed SILs for use in Class I areas in 1996 (61 Fed. Reg. 38250, 38338 (July 23, 1996)), and the level proposed for SO₂ for a 24-hour reading was 0.2 micrograms per cubic meter, which is only 4% of the small Class I increment. This proposed SIL has been widely used by EPA and other states since 1996 to measure when a modeled impact is significant enough to warrant regulatory concern. One microgram is one millionth of a gram. EPA and the EPA Environmental Appeals Board (EAB) recognize the use of SILs to determine whether a proposed source’s impact on a modeled increment violation is insignificant or *de minimis*. *In re Prairie State Generating Station*, PSD Appeal No. 05-05, 13 E.A.D. ____ (EAB 8-24-2006), slip. op. at 139.

14. The Director of DEQ is authorized to perform any and all acts necessary to administer the provisions of the WEQA and any rules, regulations, standards, or requirements established thereunder, and to exercise all incidental powers as necessary to carry out the purposes of the EQA. WYO. STAT. § 35-11-109(a)(i). The Administrator of DEQ/AQD has the “powers as shall be reasonably necessary and incidental to the proper performance of the duties imposed” on the Air Quality Division by the EQA. WYO. STAT. § 35-11-110(a)(x). These powers include the use of EPA-proposed Class I SILs as a tool to exempt *de minimis* impacts in analyzing increment violations.

15. Wyoming’s EQA expressly recognizes that DEQ/AQD will be implementing the federal CAA pursuant to an EPA-approved State Implementation Plan. WYO. STAT. §§ 35-11-103(b)(iii) and (v); 35-11-203 *et seq.*; 35-11-102.

16. DEQ's use of Class I SILs to determine *de minimis* impacts when analyzing increment violations in a Class I area does not create an ability to depart from the federal CAA, or the WEQA, or Wyoming's regulations, "but rather is a tool to be used in implementing the legislative design." *Alabama Power Co. v. Costle*, 636 F.2d at 360.

17. The modeling results, even using DEQ's requested conservative maximum allowable approach, demonstrated insignificant impacts from Dry Fork Station at the NCIR, i.e. below the SILs, and therefore, the issuance of the Permit was appropriate. Economic development need not be halted for impacts that are so small as to be trivial. *Groce v. Dept. of Env. Prot.* 921 A.2d 567, 578 (Pa. Cmwlth. Ct. 2007).

18. Under the regulations, DEQ has the discretion to evaluate increment consumption using allowable emissions or actual emissions. 40 C.F.R. § 51.166(b)(13); WAQSR Ch. 6, § 4(a) – "Baseline concentration" (iv)(A); "actual emissions" (ii). Modeling in this case using actual emissions from Colstrip predicted no increment exceedances.

19. Requiring a proposed source to demonstrate zero impact on a modeled increment exceedance before DEQ could issue a PSD permit, instead of DEQ applying *de minimis* SIL levels to determine the significance of the predicted impact, would unnecessarily jeopardize development of other sources and economic development and not follow the legislative purpose of the EQA or the PSD program of the federal Clean Air Act. In this case, such a practice would hold economic development in northern Wyoming hostage to a problem in Montana (Colstrip).

20. WAQSR Chapter 6, § 4(b) must be construed with the other permitting requirements provisions of WAQSR Chapter 6, including § 2. DEQ must have some flexibility and authority to interpret the WAQSR to meet the statutory mandates and legislative intent of the federal CAA. The provisions of federal law cannot otherwise be carried out.

21. Protestants have not cited a single case or jurisdiction where their zero impact argument has been adopted or applied instead of the *de minimis* approach used by EPA, DEQ, and other states to determine whether a source causes or contributes to an increment exceedance.

22. Use of *de minimis* SILs to permit sources with insignificant impacts does not mean that an increment exceedance goes unregulated or unaddressed if new sources with legally *de minimis* insignificant impacts are permitted. There are other regulatory tools that are used to address genuine increment issues in a manner which does not jeopardize new sources with trivial impacts. *See, e.g.* 42 U.S.C. § 7410(k)(5) and 40 C.F.R. § 51.166(a)(3) (for SIP call); 42 U.S.C. § 7413(a)(5) (stop order on construction); WAQSR Ch. 6, § 4(b)(vii-ix) (for variance). The solution is not for Wyoming to deny a permit to new sources such as Dry Fork Station simply because Dry Fork Station has a theoretical and admittedly trivial impact on a modeled increment exceedance. Wyoming's sources are not the problem to the extent any hypothetical increment exceedances might be modeled.

23. Based on all the foregoing findings of fact and conclusions of law, DEQ/AQD's use of SILs in the modeling of SO₂ in the NCIR was in accordance with the WEQA and the WAQSR.

THEREFORE IT IS HEREBY ORDERED THAT:

DEQ's and Basin Electric's motions for summary judgment on the issue of SO₂ modeling are granted and DEQ/AQD's decision to issue air quality permit No. CT-4631 to Basin Electric to construct the Dry Fork Station is affirmed. Protestants' Motion on this issue is denied. DEQ's decision to issue the Permit as it relates to the SO₂ increment consumption allegations of the Petition in Count VIII is affirmed.

RESPECTFULLY SUBMITTED this 17 day of October, 2008.



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CERTIFICATE OF SERVICE

I hereby certify that on October 17, 2008, I served the foregoing by electronic service and by placing a true and correct copy thereof in the United States mail, postage prepaid and properly addressed to the following:

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A handwritten signature in black ink, appearing to read "Reed Zars", is written over a solid horizontal line.

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