

**BEFORE THE ENVIRONMENTAL APPEALS BOARD
U.S. ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.**

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In the Matter of:)	
)	
RockGen Energy Center)	
)	
PSD Permit No. 98-RV-150)	PSD Appeal No. 99-1
)	

**AMICUS BRIEF OF EPA REGION V AND EPA OFFICE OF AIR
AND RADIATION IN RESPONSE TO RURAL’S AMENDED PETITION
FOR REVIEW AND THE RESPONSES OF WDNR AND ROCKGEN**

Pursuant to 40 CFR § 124.19(c), the U.S. Environmental Protection Agency's Office of General Counsel and the Office of Regional Counsel for Region V, on behalf of the Office of Air and Radiation and Region V, (“Region V”) respectfully submit this amicus brief in response to the Amended Petition for Review of PSD Permit filed by Responsible Use of Rural and Agricultural Land (“RURAL” or “the Petitioner”) and the Responses of the Wisconsin Department of Natural Resources and RockGen Energy LLC (“RockGen”).

I. FACTUAL BACKGROUND

Pursuant to 40 CFR § 52.21(u), the WDNR has been delegated authority by the Regional Administrator for Region V to administer the federal program for the prevention of significant deterioration of air quality (“PSD”). See 53 Fed. Reg. 18983 (May 26, 1988). Pursuant to this agreement, WDNR administers the PSD permit program found in 40 CFR 52.21 for Wisconsin

and in accordance with the permit review requirements in 40 CFR 124 Subparts A and C. As part of this delegation agreement, WDNR must follow EPA's new source review guidance, "including the guidance in the October 1980 PSD Workshop Manual, as well as all future guidance representing national policy." 53 Fed. Reg. at 18983. The most current guidance representing national policy is the New Source Review Workshop Manual (Draft Oct. 1990) ("NSR Workshop Manual").

On January 25, 1999, the WDNR issued a final permit to RockGen for the construction of a combustion turbine generation facility consisting of three 175 MW combustion turbines/electric generator sets to be located in the Town of Christiana, Dane County, Wisconsin. ("RockGen facility"). On April 5, 1999, RURAL petitioned the Environmental Appeals Board ("EAB" or "the Board") to review this permit, and filed an amended petition on April 7, 1999 ("Amended Petition").

II. THE WDNR FAILED TO ADEQUATELY EXPLAIN ITS BACT DETERMINATION.

In its petition for review, RURAL has raised a number of issues regarding the BACT determination for the control of NO_x emissions at the RockGen facility. The WDNR and RockGen have argued in response that, *inter alia*, these issues were not raised during the public comment period and that the EAB should accordingly deny review of the BACT issue. WDNR's Response to Amended Petition for Review ("Response") at 12; RockGen's Response to Amended Petition for Review ("RockGen's Response") at 3-6. The question of whether these issues were preserved for review is a matter for the EAB to determine based on its review of the information

before it. Region V requests that if the EAB reviews the BACT issue, that it take into account the following arguments regarding the failure of the WDNR to adequately explain on the record the basis for its BACT determination.

A. The WDNR Failed to Consider All Available Control Options in Determining BACT for the Control of NO_x Emissions.

The WDNR failed to conduct an appropriate review of BACT for the control of NO_x emissions because in the first step of its analysis, the WDNR failed to identify and list all available control options for the RockGen facility. See NSR Workshop Manual at B.5. As the NSR Workshop Manual makes clear, “[a]pplicants are expected to identify all demonstrated and potentially applicable control technology alternatives,” including combinations of inherently lower emitting processes and add-on controls. Id. at B.10-11. One potentially applicable control technology for combustion turbines is the combination of dry low NO_x burners (“DLN”) and selective catalytic reduction (“SCR”). See Record at 813. From the information in the RBLC, this combination is capable of effectively achieving greater NO_x emission reductions than either DLN or SCR. Nonetheless, it does not appear that this potentially applicable control technology was considered as part of the BACT analysis for the RockGen facility.

Nothing in the permit application submitted by RockGen or in the Analysis and Preliminary Determination by WDNR indicates that the permit applicant or the WDRN reviewed the possibility of applying the combination of DLN and SCR as BACT. In its permit application, RockGen identified five potential technologies for the reduction of NO_x emissions: catalytic combustion; proprietary catalytic absorption/oxidation technology; selective catalytic reduction;

dry low NO_x burners; and water/steam injection. Record at 49. RockGen concluded that the first four control technologies were either technically or economically infeasible and that water injection was BACT. Record at 49-50; 257-274. In its Analysis and Preliminary Determination for the RockGen facility, and as reflected in internal memoranda, the WDNR considered SCR and DLN separately as possible control options. Record at 615-20 & 729.¹

The first step in a “top-down” BACT analysis should be to identify all available control options. NSR Workshop Manual at B.5. As the Board has noted, the term “available” is used in its broadest sense under this step as the goal at this stage of the BACT analysis is to develop a comprehensive list of control options. In re Knauf Fiber Glass, GmbH, PSD Appeal Nos. 98-2 through 98-20, slip op. at 12 (EAB, Nov. 30, 1998). The NSR Workshop Manual explains that “[a]vailable control options are those air pollution control technologies or techniques with a practical potential for application to the emissions unit and the regulated pollutant under evaluation.” NSR Workshop Manual, at B.5; see Ogden Martin Systems of Onondaga and Onondaga County Resources Recovery Facility, 4 E.A.D. 405, 410 (EAB 1992), citing Spokane Regional Waste-to-Energy, PSD Appeal No. 88-12, at 22 (Adm’r, June 9, 1989)(control technology is “available” when “there are sufficient data indicating (but not necessarily proving)” the technology “will lead to a demonstrable reduction in emissions of regulated pollutants or will otherwise represent BACT”).

¹ The only apparent mention of the possible control option of SCR combined with DLN is a brief statement by WDNR staff in a memorandum where, after concluding that BACT should be DLN, the memorandum notes that “[t]he facility may wish to consider additional controls, such as SCR, to reduce NO_x emissions beyond BACT in order to generate surplus NO_x allowances for sale.” Record at 649. There is no indication that the combination of technologies (DLN + SCR) that could achieve NO_x emissions reductions “beyond BACT” was ever considered as a potential control option.

In describing the process of identifying potentially applicable control alternatives, the NSR Workshop Manual categorizes control options as inherently lower-emitting processes/practices, add-on controls and combinations of inherently lower-polluting processes/practices and add-on controls. According to the NSR Workshop Manual, the top-down BACT analysis at step one should include consideration not only add-on controls and inherently lower-polluting processes, but also combinations of these controls. NSR Workshop Manual at B.10. As an example of such a combination, the NSR Workshop Manual identifies “the application of combustion and post-combustion controls to reduce NO_x emissions at a gas-fired turbine.” *Id.* As explained in the WDNR’s preliminary determination, DLN is an in-furnace control process that reduces the quantity of NO_x formed in the combustion process while SCR is a post-combustion method for control of NO_x. Record at 731-32. Thus, the combination of DLN and SCR is the specific kind of combination described by the NSR Workshop Manual as a potential control option that should be taken into account in the BACT analysis. Although such a control option might ultimately be determined to be technically or economically infeasible in a BACT analysis, nothing in the record shows that RockGen or the WDNR took this combination of control technologies into consideration in determining BACT for NO_x. The BACT analysis for the RockGen facility is, accordingly, incomplete.

B. WDNR’s Rejection of SCR on the Basis of Incremental Cost Was Clearly Erroneous.

In its preliminary determination, the WDNR compared the incremental cost effectiveness of SCR to DLN and found that “[t]his review shows that the control cost for SCR is not

economically feasible.” Record at 733. The WDNR’s use of only incremental cost effectiveness to reject SCR is irrational and counter to EPA policy.

In a BACT analysis, the permit applicant should look at both the average and incremental cost effectiveness of the potential control options. The principal purpose of the cost analysis is to determine if there are significant cost differences between the applicant and other sources which have adopted the control technology under review. NSR Workshop Manual at B.31. The cost analysis also shows whether the cost of controls is within the range generally considered acceptable for BACT. Id. at B.32 In making this determination, the applicant should consider both the average cost-effectiveness and the incremental cost-effectiveness, but should take care in calculating incremental costs because of the complexities involved in comparing various options. See id. at B.42-44. The NSR Workshop Manual further warns that

undue focus on incremental cost effectiveness can give an impression that the cost of a control alternative is unreasonably high, when, in fact, the cost effectiveness, in terms of dollars per total ton removed, is well within the normal range of acceptable BACT costs.

Id. at B.46.

In its response, the WDNR argues that its analysis of the economic factors for DLN and SCR was done properly. Response at 5. It notes that it analyzed the incremental cost of SCR over DLN and concluded that the use of SCR would be economically infeasible. Id. The WDNR further notes that in a November 17, 1998 memorandum, it analyzed the average cost effectiveness of SCR and DLN, estimating a cost effectiveness for NO_x of \$3191 per ton and \$857 per ton, respectively. Id. at 4, citing Record at 646-649. However, as the WDNR essentially admits, this average cost effectiveness did not come into play in its BACT determination. Id. (“The economic evaluation of SCR in the Nov. 17, 1998 memo . . . could,

hypothetically, be applied to this Facility.”)(emphasis added)². Moreover, in the November 17, 1998 memo, the Air Program staff concluded that SCR was economically feasible for the proposed RockGen facility. Record 649. The Analysis and Preliminary Determination ignored this conclusion as well as the analysis of average cost effectiveness. In sum, WDNR completely failed in its Analysis and Preliminary Determination to consider the average cost effectiveness of SCR.

Because of its failure to consider the average cost effectiveness, the WDNR should not have rejected SCR on the basis of economic infeasibility. The NSR Workshop Manual at B.45 states:

To justify elimination of an alternative [based on adverse economic impact], the applicant should demonstrate to the satisfaction of the permitting agency that costs of pollutant removal (e.g., dollars per total ton removed) for the control alternative are disproportionately high when compared to the cost of control for the pollutant in recent BACT determinations. Specifically, the applicant should document that the cost to the applicant of the control alternative is significantly beyond the range of recent costs normally associated with BACT for the type of facility (or BACT control costs in general) for the pollutant.

Despite the general statements in its Response that both average and incremental cost effectiveness of SCR was analyzed, Response at 4, the WDNR did not provide any justification for the conclusion that \$3191 per ton of NO_x removed (the average cost effectiveness of SCR according to its calculations) was disproportionately high. Instead, the WDNR depended solely on an analysis of the incremental costs of SCR, as compared to DLN, to justify its conclusion that

² While RockGen argues that the November 17, 1998 memorandum is part of the WDNR’s BACT analysis, RockGen Response at 3-4, in its Response, RockGen refers only briefly to the analysis of average cost contained in the memorandum. See RockGen Response at 11. To the extent this document is part of the BACT analysis, it should be noted that the November 17, 1998 memorandum concludes that SCR is economically feasible.

SCR was economically infeasible. See Record 732-734. The WDNR's incomplete analysis of economic impact did not provide an adequate basis for the State to reject SCR as BACT.

C. WDNR's Argument that SCR Is Not Technologically Feasible and Is Not the Best Available Control Technology Is Not Supported by the Record.

RURAL argues that SCR is the most effective control option for reducing NOx emissions when firing natural gas or distillate fuel oil. Amended Petition at 10. In its Response, the WDNR disagrees with the Petitioner's assertions that SCR is the most effective control technology. Response at 8 & 10. In part, the WDNR appears to disagree with the Petitioner's assertion because it found no evidence that SCR on large, simple cycle turbines could achieve 8 ppm. Id. However, the WDNR seems to have the same concern regarding DLN. Although the vendor guarantees 9 ppm for DLN when firing natural gas, the WDNR permitted the RockGen facility at 15 ppm. Record at 733. The basis for setting the BACT emission limitation at 15 ppm appears to be the WDNR's conclusion that there is no evidence that GE 7FA turbines with DLN-2.6 combustors operating in simple cycle have achieved 9 ppm. Id.; but see BACT Determination (Draft) for Oleander Power Project referenced by WDNR, Response at 11 which states that "[r]ecently GE Frame 7 FA units (160 MW gas turbines with firing temperatures at 2400°F) reportedly met performance guarantees of 9 ppm with 'DLN-2.6' burners at Fort St. Vrain, CO and Clark County, WA." (Attached as Exhibit 1).³ In light of the WDNR's conclusion regarding

³ In reviewing a control technology, it is presumed that the source can achieve the same emission reduction level as another source unless the applicant demonstrates that there are source-specific factors or other information that justifies a different result. NSR Manual at B.24. Thus, under certain circumstances, it is not necessarily clear error for a permitting authority to establish a BACT limit that does not reflect the highest possible control efficiency achievable by the technology on which the emissions limitation is based. In re Masonite, 5 E.A.D. 551, 560

DLN, the WDNR's statements that there is no evidence that SCR could achieve 8 ppm at a source such as the RockGen facility is accordingly not probative in comparing the effectiveness of SCR and DLN.

Despite the apparent uncertainty regarding the achievable emissions reductions from SCR, the WDNR found it to be the most stringent control available. Response at 3. Ultimately, the WDNR rejected SCR as BACT. In explaining its rationale for this decision, the WDNR claims in its response to Petitioner that SCR is not technically feasible. Response at 8. However, there is no basis for that conclusion on the record.

The NSR Workshop Manual states that

A demonstration of technical infeasibility should be clearly documented and should show, based on physical, chemical, and engineering principles, that technical difficulties would preclude the successful use of the control option on the emissions unit under review.

NSR Workshop Manual at B.7. The WDNR failed to make such a demonstration. At best, the Analysis and Preliminary Determination of the WDRN states that high temperature SCR with zeolite catalysts are "untested and unproven." Record at 732. At worst, the WDNR actually

(EAB 1994). In establishing the 15 ppm/12 ppm NO_x emission limit in the RockGen permit, the WDNR noted that the vendor currently guarantees 9 ppm, but stated that "[s]ome facilities have expressed *some discomfort* with permitting single cycle unit at 9 ppm NO_x due to the fact that GE does not have a 7FA with DLN-2.6 combustors operating." Record at 733 (emphasis added). The WDNR further noted that average emissions could exceed 9 ppm if the combustion turbine operates at or close to 9 ppm because "[s]imple cycle peaking units generally operate only at full load with daily start/stop cycles." *Id.* The WDNR concluded by observing that some agencies accordingly "have agreed to permit 7FA DLN 2-6 units at 15 ppm nitrogen oxides (12 ppm average) until GE can obtain a database of experience at 9 ppm nitrogen oxides." The WDNR did not address the comment in the RACT/BACT/LAER Clearinghouse regarding the fact that the simple cycle, peak load Gainesville Regional Utility facility achieves 6 to 9 ppm in practice with DLN. *See* Record at 813. Nor did the WDNR explain why another peak load plant with DLN listed in the RBLC, the Milagro, Williams Field Service facility, was able to meet 9 ppm.

concluded that such a control option could not be ruled out on the basis of technical feasibility. Record at 647.

As a result, any argument by WDNR's in its response to Petitioner that it found SCR to be technically infeasible should be ignored. In the Analysis and Preliminary Determination, the WDNR appears to have concluded that high temperature SCR with a zeolite catalyst was a technically feasible control technology, a potentially applicable control option which it rejected on the basis that "SCR is not economically feasible." Record at 732-33. In a staff memorandum, the Air Program engineering staff clearly concluded "SCR cannot be ruled out on the basis of technical infeasibility." Record at 647. Similarly, in its review of control technologies, RockGen noted that Engelhard Corporation "indicated that its ZNXTM SCR Catalyst System is technically feasible." Record at 261.

While it may be possible for the WDNR to show, based on physical, chemical, and engineering principles, that technical difficulties would preclude the successful use of high temperature SCR with a zeolite catalyst, the record does not currently support such a conclusion. Instead, the WDNR simply noted that the performance of zeolite based catalysts are "relatively untested and unproven." Record at 732. This statement does not provide the necessary factual support that this control option is technically infeasible.

III. The WDNR Properly Concluded that DLN is Technically Feasible.

Despite RURAL's argument that DLN has not been proven to be technically feasible for simple cycle combustion turbines of the size proposed for the RockGen plant, Amended Petition at 8, it has presented no evidence "based on physical, chemical, [or] engineering principles, that

technical difficulties would preclude the successful use of the control option.” See NSR Workshop Manual at B.7. As the RBLC identifies a number of gas-fired combustion turbine generators where DLN has been used and shown to control NOx emissions effectively, see e.g. Record at 813, the presumption is that DLN is a technically feasible control option for such facilities. Moreover, the vendor in this case, General Electric (“GE”), has guaranteed that its 175 MW 7FA DLN-2.6 combustion turbine generators will achieve 9 ppm of NOx. Record at 733.

In response to questions about the applicability of DLN to this size of combustion turbine generator, the WDNR responded by identifying the LS Power Facility in Whitewater, Wisconsin as a facility where DLN is being currently used on a facility similar in size to the RockGen that is being operated in combined cycle. Record at 1193. The WDNR also noted:

There are a few facilities who have installed simple combustion turbines, 83 MW, that have dry low NOx combustor technology. The BACT/LAER clearinghouse information provides the names of the facilities that have been permitted to construct simple cycle combustion turbines having dry low NOx combustors.

Id. RURAL’s argument that because GE’s model 7FA with DLN-2.6 combustors have not been installed and operated successfully anywhere, does not establish that the WDNR was clearly erroneous in concluding that DLN is technically infeasible. See In re Kawaihae Cogeneration Project, PSD Appeal Nos. 96-9, 96-10, 96-11, 96-14, & 96-16, slip op. at 30-31 (EAB 1997).⁴

⁴ The Petitioner also argues that it was an abuse of discretion for the WDNR to take into account “factors other than control effectiveness for **the pollutant under review** (NOx)” in its BACT analysis. Amended Petition at 11. This is incorrect. In Step 4 of a top-down BACT analysis, the permit applicant should take into account environmental impacts of each potential control technology. NSR Manual at B.48. This includes the consideration of whether the use of certain control technologies leads to increases in emissions of pollutants other than the pollutant at issue. Id. In most instances, decreases in other pollutants subject to PSD review should be accounted for in the economic analysis of the control option. However, it is not an abuse of discretion to include some consideration of the control effectiveness for pollutants other than that pollutant under review. In particular, with respect to hazardous air pollutants, the EAB has noted

IV. WDNR'S INCLUSION OF A CONDITION IN THE PSD PERMIT WHICH ALLOWS ROCKGEN TO EXCEED BACT EMISSION LIMITS DURING STARTUP AND SHUTDOWN PLAN WAS CLEARLY ERRONEOUS.

In the final permit, the WDRN added a provision not contained in the draft permit which allows RockGen to exceed the emission limitations in the PSD permit "if the emissions are temporary and due to startup or shutdown of operations carried out in accord with a plan and schedule approved by the Department." PSD Permit Condition C.12. The PSD permit does not establish the terms of an appropriate startup and shutdown plan or the criteria for approving such a plan, but rather leaves the establishment of such provisions to the future discretion of the WDNR. As such, there is no assurance that the establishment of such a plan will be subject to the public notice and review requirements of 40 CFR 52.21 & 124. The inclusion of this provision was clearly erroneous as it allows for the modification of the terms of the PSD permit outside of the PSD permitting process.

In response to RURAL's argument that the Board should invalidate this permit condition,

that if application of a control system results directly in the release (or removal) of such pollutants, that may be taken into consideration in making the BACT determination." *In re North County Resource Recovery Associates*, 2 E.A.D. 229, 230 (Adm'r 1986). However, "the primary purpose of the collateral impacts clause 'is . . . to temper the stringency of the technology requirements whenever one or more of the specified 'collateral' impacts--energy, environmental or economic--renders use of the most effective technology inappropriate." *Kawaihae*, slip op. at 15, citing *In re Columbia Gulf Transmission Co.*, 2 E.A.D. 824, 826 (Adm'r 1989) and *In re Old Dominion Electric Cooperative*, 3 E.A.D. 779, 792 (EAB 1992) ("While collateral environmental impacts are relevant to the BACT determination, their relevance is generally couched in terms of discussing which available technology, among several, produces less adverse collateral effects, and, if it does, whether that justifies its utilization even if the technology is otherwise less stringent."). The clause allows rejection of the most effective technology as BACT only in limited circumstances. However, in this case, it does not appear that the WDNR rejected SCR in favor of DLN on the basis of such a comparison. See Record at 732-733.

the WDNR argues that such a provision is authorized by NR 436.03(2)(b) of the Wisconsin Administrative Code, which allows "emissions in excess of the emission limitations set in chapters NR 400-499" under certain circumstances. See WDNR Response at 17. However, WDRN's argument ignores the fact that the federal regulations at 40 CFR 52.21 govern the issuance of this PSD permit in Wisconsin, not chapters NR 400-499 of the Wisconsin Administrative Code. While the PSD permit issued to RockGen may also serve to meet State requirements, the PSD permit is a federal permit and the emission limits set forth in the permit were established to meet the requirements in 40 CFR 52.21. The Wisconsin Administrative Code does not authorize -- nor could it authorize -- emissions in excess of these emission limitations during startup and shutdown, except as allowed by federal law.

RockGen's argument that the delegation agreement between EPA and the State of Wisconsin provides supports for concluding that EPA concurred in the startup and shutdown provision in the permit, RockGen Response at 21, is without basis. As did the WDNR, RockGen ignores the fact that the Wisconsin Administrative Code provision authorizing excess emissions due to startup and shutdown of operations does not apply to a federal PSD permit. Because the provision does not apply to the issuance of federal PSD permits, RockGen's EPA's determination in delegating the PSD program to Wisconsin that the technical, administrative, and enforcement elements of the Wisconsin air program are adequate to implement a fully delegated PSD program provides no basis for concluding that EPA determined that the provision in question was consistent with EPA policy. Nothing in the delegation agreement can be read to abrogate the WDRN's responsibility to implement 40 CFR 52.21 consistent with all EPA policy guidance on this and other applicable regulations. See 53 Fed. Reg. 18983 (May 26, 1988); see also West

Suburban Recycling and Energy Center, L.P., PSD Appeal Nos. 95-1 & 96-1, slip op. at 21-22 (EAB, Dec. 11, 1996).

In guidance memoranda, EPA has recognized that the startup and shutdown of process equipment are a part of normal operations. See “Automatic or Blanket Exemptions for Excess Emissions During Startup and Shutdowns Under PSD” from John B. Rasnic (Jan. 28, 1993)(attached as Exhibit C to RockGen’s Response)(“Rasnic Memo.”); “Policy on Excess Emission During Startup, Shutdown, Maintenance, and Malfunction” from Kathleen M. Bennett (Sept. 28, 1982 and Feb. 15, 1983)(attached as Exhibit L to RockGen’s Motion for Remedial Order) (“Bennet Memos”). However, in these guidance memoranda EPA has also made clear that as a part of normal operations, startup and shutdowns “should be accounted for in the planning, design and implementation of operating procedures.” Rasnic Memo at 2. In other words, excess emissions that occur during these periods are reasonably foreseeable and should not be subject to an automatic exemption. Rather, the States and EPA should exercise their enforcement discretion “where the source adequately shows that the excess could not have been prevented through careful planning and design and that bypassing of control equipment was unavoidable to prevent loss of life, personal injury, or severe property damage.” Id.

The WDNR points out that “[i]t may not be technically feasible to comply with all of the stringent BACT emission limits during startup and shutdown of a combustion turbine.” WDNR Response at 17. EPA believes that in many instances careful and prudent planning and design will eliminate violations of emission limitations during such periods. To the extent there may exist short periods during startup and shutdown when, despite best efforts, the otherwise applicable emission limitation cannot be met, it may be appropriate for the permitting authority to include

conditions in a PSD permit that take into account any such technological limitations. However, in this situation the source must demonstrate that compliance with an otherwise applicable limit is impossible and that other controls or different methods of operating could not achieve lower emissions.

Such conditions in a PSD permit as a secondary limit during a narrowly defined startup and shutdown period must be made part of the PSD permit and justified as BACT. Further, in reviewing and establishing such limits, the permitting authority must ensure protection of the NAAQS and increment(s). This is especially important where a short-term standard is in place and excess emissions during a short period of time could result in emissions in excess of a NAAQS. Thus, where the circumstances warrant, a permitting authority may include in a permit a provision that allows a source to exceed otherwise applicable emission limitations during narrowly defined startup and shutdown periods by establishing alternative secondary limits. However, WDRN failed to determine whether the circumstances in this case warranted such a provision and further failed to spell out in the permit the terms under which such excess emissions would be allowed.

The Board should remand the PSD permit to the WDNR to correct the permit. One option would be for the WDNR to determine whether compliance with the current emission limitations in the PSD permit is technologically infeasible during startup and shutdowns. If, in fact, compliance during such periods is technically infeasible, the WDRN should set forth in the PSD permit the terms under which RockGen may be allowed to exceed these emission limitations and review and establish that such terms are in compliance with the requirements of 40 CFR 52.21.

V. WDNR FAILED TO PROPERLY CONSIDER ALTERNATIVES TO THE PROPOSED PLANT

RURAL's petition asserts that WDNR erred by failing to consider demand-side management ("DSM") or other alternatives to the RockGen plant as proposed in the PSD application. For the reasons set forth below, we agree with RURAL that this issue is within the scope of a PSD permit proceeding, was properly preserved for review, and was not considered by WDNR. Accordingly, the appropriate remedy is a remand to WDNR for consideration of DSM-related issues.

A. The PSD Program Extends to Consideration of DSM and Other "Alternatives" to a Proposed Major New Source of Air Pollution.

In its petition, RURAL objects to the RockGen permit on the ground that WDNR failed to consider reasonable alternatives to the plant. In particular, petitioner objects to the failure to consider DSM techniques such as energy conservation and load management, and RURAL also objects that the WDNR failed to consider allowing only a smaller plant in its permitting decision. Petition at 16, 19-20.⁵ RURAL points to, among other things, the provision in section 165(a)(2) of the CAA which provides that in PSD permit proceedings, the public may request consideration of "alternatives" to the proposed new source and to the Board's acknowledgment that "energy

⁵RockGen, WDNR and PSCW contend that RURAL failed to preserve these issues for appeal by failing to comment during the public comment period. The record reflects, however, that RURAL's consultant, Chris Deisinger, specifically questioned whether RockGen had accurately characterized the nature of the facility and criticized WDNR's failure to consider "reasonable alternatives." See Petition, Exhibit C. In addition, the January 28, 1999 summary of public comments and responses prepared by WDNR reflects that Bob Salov, the local County Supervisor, questioned the decision to build a plant three times larger than the stated need and the pollution reduction burdens this might impose on other industries. The January 28 summary reflects that Sharon Hutchinson also questioned the size of the facility.

conservation can produce significant environmental benefits.” In re EcoElectrica, L.P., PSD Appeal Nos. 96-8 & 96-13, slip op. at 22 (EAB 1997). In EcoElectrica, the Board appeared to conclude that it could consider claims of this nature. See id. at ____⁶. However, the Board properly framed the issue as one of whether the petitioner had met its burden of showing that the permitting authority was clearly erroneous in declining to consider possible alternatives under the facts of that case. The Board found that it was more appropriate for energy planning decisions to be made by the Commonwealth of Puerto Rico, especially since there was a division of responsibilities between the Commonwealth, which had responsibility for determining the need for the facility, and EPA, which directly administers the PSD permitting program in Puerto Rico. Id. Ultimately, the Board found that the petitioner had failed to overcome the premise that “the energy planning authorities of the government of Puerto Rico are deserving of deference under these circumstances.” Id.

B. Wisconsin Did Not Assess the Need for a 525 MW Facility or Otherwise Consider Reasonable Alternatives to the Proposed RockGen Facility.

We believe the EAB should apply the same reasoning here as it did in EcoElectrica regarding consideration of alternatives to a proposed major new source. However, that reasoning leads to the conclusion that the RockGen permit should be remanded on this issue, since the

⁶ In reaching this apparent conclusion, the Board cited to the arguments of the Office of General Counsel and Region which invoked, in addition to section 165(a)(2), the purposes provisions of CAA section 160(5), which call for careful consideration of all consequences of a decision to construct a major new source of air pollution. [cite] The Office of General Counsel and the Region also cited to the CAA legislative history at 3 A Legislative History of the Clean Air Act Amendments of 1977 at ____, which makes it clear that a PSD permitting authority may place conditions on, restrict the size of, or reject altogether a proposed new source in response to community concerns. Id.

PSCW, the state agency charged with energy planning decisions, lacked -- and indeed specifically disclaimed -- authority to consider the need for the source, its proposed size, or reasonable alternatives.

As explained above [in statement of facts], the proposed RockGen facility is a wholesale merchant plant – a plant that is not owned by a public utility and does not sell electricity to retail customers. Rather, it is an entrepreneurial enterprise competing in an increasingly deregulated electricity market. In the RockGen PSCW proceeding, the Commission recounted that concerns about electricity supply in Wisconsin led the PSCW in 1997 to direct Alliant to increase its generation capacity through competitive procurement, and this in turn led to Alliant’s solicitation for bids on 170 MW of generation capacity. [Cite PSC decision.]

Shortly thereafter, on April 28, 1998 Wisconsin enacted 1997 Wisconsin Act 204. Obviously, Act 204 was intended to address concerns about adequacy of electricity supply in Wisconsin. However, it contains no express findings regarding the amount of electricity needed. Rather, Section 96(1)(b) of Act 204 directed Alliant and other eastern Wisconsin utilities to complete the bidding process already underway by July 31, 1998. Alliant did so, choosing RockGen, but contracting for 525 MW, not 170 MW as called for by the PSCW and ratified by Act 204.

Act 204 also removed merchant plants from the PSCW’s jurisdiction to conduct needs and siting analyses. In the subsequent PSCW proceeding regarding RockGen, the PSCW specifically noted that Act 204 had prohibited the Commission from considering the need for, design, or location of the plant or reasonable alternatives to it:

Because the [RockGen] Facility is a wholesale merchant plant, the Commission was not permitted to consider whether the Facility would satisfy the reasonable needs of the public for an adequate supply of electricity under Wis. Stat. §

196.491(3)(d)2 nor whether the design and location of the Facility was in the public interest considering alternative sources of supply or engineering or economic factors pursuant to Wis. Stat. § 196.491(3)(d)3.

[Cite PSC decision.]

Arguably, Act 204 represents an implicit statutory finding regarding the need for 170 MW of generation capacity that was under consideration at the time of Act 204's passage. As such, the legislature's decision might have been an adequate basis to deny RURAL's petition on DSM-related issues if RockGen had sought a PSD permit for a 170 MW facility. However, as to the 525 MW plant that RockGen has proposed to build, neither the PSCW or the Wisconsin legislature engage in an analysis of the need for such a plant. As a consequence, it was clearly erroneous for the WDNR to respond to RURAL's concerns by asserting that energy capacity and electric need issues were adequately addressed by the PSCW. See March 1, 1999 WDNR Response to Comments.

Accordingly, the Board should remand the issue of the size of the plant and reasonable alternatives for meeting electricity demand to the WDNR for further consideration. On remand, the WDNR should undertake an appropriate analysis unless another Wisconsin agency does so.⁷ In the March 1, 1999 document, WDNR asserted that it "does not have any regulatory authority to dictate how many Megawatts of capacity should be built." In a narrow sense, this may well be true, as under Wisconsin law, it is the PSCW that is charged with issuing a Certification of Public Convenience and Necessity. However, as explained above, for merchant plants such as RockGen,

⁷RURAL's pending case against the PSCW and WDNR in state court challenges the adequacy of the PSCW proceeding. It appears that a possible outcome of that lawsuit would be an order that the PSCW engage in the analysis that RURAL seeks before the Board. To the extent that occurs, there would be no need, under the reasoning of EcoElectrica, for the WDNR to engage in its own analysis. Rather, it would be sufficient to defer to the PSCW's findings.

by virtue of Act 204, the PSCW lacks authority to directly address the size of a proposed plant or alternatives to it. Nevertheless, as the PSD permitting agency, the WDNR does have the authority to effectively limit, on air quality-related grounds, the size and type of plant that may receive a PSD permit. This authority should be used, as necessary, to conduct an appropriate analysis.