

**COURT OF APPEALS
DECISION
DATED AND FILED**

June 24, 2010

David R. Schanker
Clerk of Court of Appeals

NOTICE

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A party may file with the Supreme Court a petition to review an adverse decision by the Court of Appeals. See WIS. STAT. § 808.10 and RULE 809.62.

Appeal No. 2009AP648

Cir. Ct. No. 2007CV1455

STATE OF WISCONSIN

**IN COURT OF APPEALS
DISTRICT IV**

SIERRA CLUB,

PETITIONER-APPELLANT,

V.

**WISCONSIN DEPARTMENT OF NATURAL RESOURCES, WISCONSIN
PUBLIC SERVICE CORPORATION AND DAIRYLAND POWER COOPERATIVE,**

RESPONDENTS-RESPONDENTS,

**WISCONSIN DEPARTMENT OF ADMINISTRATION AND WISCONSIN
DEPARTMENT OF ADMINISTRATION, DIVISION OF HEARINGS AND
APPEALS,**

RESPONDENTS.

APPEAL from an order of the circuit court for Dane County:
WILLIAM FOUST, Judge. *Affirmed in part; reversed in part and cause
remanded for further proceedings.*

Before Dykman, P.J., Vergeront and Higginbotham, JJ.

¶1 HIGGINBOTHAM, J. This case involves a dispute over an air pollution permit for the construction of a coal-fired power plant in Marathon County. The Wisconsin Department of Natural Resources (DNR) issued the air pollution permit to Wisconsin Public Service Corporation and Dairyland Power Cooperative (collectively, WPSC) for the Weston Generating Station Unit 4 power plant (Weston 4). Sierra Club appeals the circuit court’s decision affirming the DNR’s “best available control technology” (BACT) determinations for the air emissions construction permit.

¶2 Sierra Club challenges four of the BACT determinations made by an administrative law judge (ALJ),¹ subsequently adopted by the DNR, following a contested case hearing under WIS. STAT. § 285.01(12) (2007-08)² and WIS. ADMIN. CODE § NR 405.02(7). Sierra Club argues that the DNR erroneously exercised its discretion in setting BACT limits for sulfur dioxide emissions; in selecting dry flue gas desulfurization (FGD) technology to control sulfur dioxide emissions rather than wet FGD technology; in setting the BACT emissions limit for nitrogen oxide; and in failing to establish a visible emissions standard.

¶3 Applying great weight deference to the DNR’s interpretation and application of the pertinent statutes, and controlling weight deference to its

¹ “Pursuant to WIS. STAT. § 227.43(1)(b) [2007-08], the Division of Hearings and Appeals assigns a hearing officer, or ALJ, to preside over hearings that the Department of Natural Resources (DNR) is required to conduct and that are not conducted by the DNR secretary.” *Sierra Club v. DNR*, 2007 WI App 181, ¶3 n.4, 304 Wis. 2d 614, 736 N.W.2d 918.

² All references to the Wisconsin Statutes are to the 2007-08 version unless otherwise noted.

interpretation and application of the pertinent administrative regulations, we uphold as reasonable the BACT limits set by the DNR for sulfur dioxide emissions and nitrogen oxide emissions, and the selection of dry FGD technology to control sulfur dioxide emissions. Moreover, to the extent that Sierra Club's arguments challenge the factual basis for the DNR's BACT emissions limits and its selection of dry FGD technology, we conclude that these determinations are supported by substantial evidence. We further conclude, however, that the failure of the ALJ and the DNR to establish a BACT visible emissions limit, expressed as a percentage of opacity, for those pollutants that are visible was based on an unreasonable interpretation of WIS. ADMIN. CODE § 405.02(7) and is inconsistent with the language of the regulation. We therefore affirm in part, and reverse in part, the circuit court's decision upholding the DNR's decision, and remand for DNR to reopen the permit to establish a BACT visible emissions limit for those emissions that are visible.

BACKGROUND

A. Procedural History³

¶4 WPSC applied to the DNR for an air pollution control construction permit for the coal-fired power plant known as Weston 4 in September 2003. The DNR, under its authority conferred by WIS. STAT. §§ 285.60 through 285.69; WIS. STAT. § 285.01(13); and the Clean Air Act (Act), 42 U.S.C. §§ 7470-7479, issued a draft air permit for the plant and complied with public participation requirements. The DNR considered all relevant public comments, including those

³ Additional details of the procedural history of this case may be found at *Sierra Club*, 304 Wis. 2d 614, ¶¶2-8.

received from Sierra Club and the U.S. Environmental Protection Agency (EPA), and prepared a detailed responsive memorandum. In October 2004, the DNR modified the permit in response to the comments and issued WPSA a final permit to construct and operate the coal-fired power plant.

¶5 Sierra Club challenged the adequacy of the BACT emissions limits⁴ in the permit and requested a contested case hearing pursuant to WIS. STAT. §§ 227.42(1) and 285.81(2) and WIS. ADMIN. CODE § NR 2.05. At the conclusion of a week-long contested case hearing, an ALJ rejected certain contentions by Sierra Club, affirmed the DNR's decision to issue the permit, but ordered the DNR to draft further modifications to the permit after finding that certain emissions limits did not meet BACT requirements.

¶6 Sierra Club filed a petition for judicial review of the ALJ's order under WIS. STAT. ch. 227, which was dismissed by the circuit court on the ground that the ALJ's order was not final and therefore not subject to judicial review. Sierra Club appealed, and we affirmed the circuit court's dismissal. *See Sierra Club v. DNR*, 2007 WI App 181, ¶¶20, 28, 304 Wis. 2d 614, 736 N.W.2d 918.

¶7 DNR subsequently issued a modified permit pursuant to the ALJ's order. Sierra Club appealed to the Division of Hearings and Appeals, and the ALJ concluded that the DNR correctly interpreted and implemented its order, and affirmed the issuance of the permit as modified. Sierra Club once again sought certiorari review of the ALJ's final order, which incorporated both the February

⁴ The permit includes emissions limitations for more than twenty-five different sources in the Weston 4 Project. This appeal involves only one source, the so-called "super critical pulverized coal boiler." The boiler is subject to best available control technology (BACT) emissions limitations for fifteen different pollutants.

2006 and November 2007 decisions. The circuit court affirmed the ALJ's order. Sierra Club appeals.

B. Regulatory Scheme Established by the Clean Air Act

¶8 The Clean Air Act creates a partnership between the states and the federal government for the regulation of air pollution. *See* 42 U.S.C. § 7410.⁵ Under the Act, states must enact legislation and regulations to implement the air quality standards set by Congress and the EPA. *See* 42 U.S.C. § 7410(a)(2)(A); *see also Alaska Dep't of Env'tl. Conservation v. E.P.A.*, 540 U.S. 461, 470 (2004). The Act requires states to submit to the EPA an implementation plan that “include[s] enforceable emission limitations and other control measures, means, or

⁵ Forty-two U.S.C. § 7410(a)(1) reads as follows:

(a) Adoption of plan by State; submission to Administrator; content of plan; revision; new sources; indirect source review program; supplemental or intermittent control systems. (1) Each State shall, after reasonable notice and public hearings, adopt and submit to the Administrator, within 3 years (or such shorter period as the Administrator may prescribe) after the promulgation of a national primary ambient air quality standard (or any revision thereof) under section 7409 of this title for any air pollutant, a plan which provides for implementation, maintenance, and enforcement of such primary standard in each air quality control region (or portion thereof) within such State. In addition, such State shall adopt and submit to the Administrator (either as a part of a plan submitted under the preceding sentence or separately) within 3 years (or such shorter period as the Administrator may prescribe) after the promulgation of a national ambient air quality secondary standard (or revision thereof), a plan which provides for implementation, maintenance, and enforcement of such secondary standard in each air quality control region (or portion thereof) within such State. Unless a separate public hearing is provided, each State shall consider its plan implementing such secondary standard at the hearing required by the first sentence of this paragraph.

techniques ... as may be necessary or appropriate to meet the applicable ... requirements” of the Act. *Alaska Dep’t of Env’tl. Conservation*, 540 U.S. at 470 (quoting 42 U.S.C. § 7410(a)(2)(A)). After the EPA approves a state’s regulatory and permitting program, the state agency becomes the primary regulatory authority for interpreting and enforcing the program. *See* 42 U.S.C. § 7410(a)(2)(A); *see also Alaska Dep’t of Env’tl. Conservation*, 540 U.S. at 484 (stating that “the permitting authority, [the state agency] here, exercises primary or initial responsibility for identifying BACT in line with the Act’s definition of that term”).

¶9 Thus, under the regulatory scheme established by the Act, both the United States Congress and the Wisconsin Legislature have delegated authority to the DNR to issue and enforce air pollution permits. *See* Approval and Promulgation of Implementation Plans for Wisconsin, 64 Fed. Reg. 28,745 at 28,746 (May 27, 1999) (granting Wisconsin’s Prevention of Significant Deterioration program approval into the State Implementation Plan); WIS. ADMIN. CODE § NR 405.02(7). The DNR’s authority, however, is subject to federal oversight by the EPA. *See, e.g.*, 42 U.S.C. § 7413(a)(2) (granting EPA authority to issue an order, administrative penalty or civil action to enforce compliance with a state implementation plan or a permit); 42 U.S.C. § 7475(d)(1) (requiring states to provide EPA with draft and final permit language); 42 U.S.C. § 7477 (granting EPA authority to issue an order or seek injunctive relief to prevent the construction or modification of a major emitting facility).

C. Best Available Control Technology (BACT)

¶10 The Weston 4 project is a major modification to an existing permitted emission source. As such, it is subject to Wisconsin’s Prevention of

Significant Deterioration program (PSD). *See* WIS. ADMIN. CODE § NR 405.01(1). The PSD requires the DNR to determine BACT emissions limits for each specifically listed pollutant subject to regulation under the Act. WIS. ADMIN. CODE § NR 405.02(7).

¶11 When seeking DNR approval for a new primary source or process, the permit applicant must conduct an analysis to determine the best available control technology (BACT). The Act defines BACT as:

an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under this chapter emitted from or which results from any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each such pollutant....

42 U.S.C. § 7479(3). This definition served as the model for the definition of BACT set forth in WIS. STAT. § 285.01(12), which provides that BACT is:

an emission limitation for an air contaminant based on the maximum degree of reduction achievable as specified by the department on an individual case-by-case basis taking into account energy, economic and environmental impacts and other costs related to the source.

WISCONSIN ADMIN. CODE § NR 405.02(7) defines BACT in greater detail as

an emissions limitation, including a visible emissions standard, based on the maximum degree of reduction for each air contaminant subject to regulation under the [Clean Air] Act which would be emitted from any proposed major stationary source or major modification which the department, on a case-by-case basis, taking into account energy, environmental, and economic impacts, and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including

clean fuels, fuel cleaning or treatment or innovative fuel combination techniques for control of the air contaminant....

¶12 The ALJ's order explains that the DNR evaluates a permit applicant's BACT determinations under the so-called "top down" approach utilized by EPA. The ALJ's decision explains that the following analysis is used to evaluate BACT for a permit:

6. The initial step in a BACT analysis is defining the proposed process or source to be permitted. The proposed process is to be determined "in terms of its physical and chemical unit operations used to produce the desired result from a specified set of raw materials." (Ex. 453) After the process has been identified, the following five steps are considered as part of a top-down BACT analysis.

- (1) identifying all available control technologies for the proposed process or source;
- (2) evaluating the technical options for feasibility taking into consideration source specific factors;
- (3) comparing the remaining control technologies based on effectiveness;
- (4) evaluating the remaining options taking into consideration energy, environmental and economic impacts; and selecting BACT.

(See Ex. 453 at B.5-9 (NSR Manual)) After conducting a site-specific top-down analysis for determining what constitutes the appropriate control technology, an emission limitation is established in the facility's permit. (*Id.* at B.2.)

¶13 After the permit applicant submits its BACT analysis to the DNR, the Department evaluates the analysis and establishes the BACT emissions limit that is "achievable" in the permit. What is "achievable" is not defined by federal or state statutes or regulations. Defining achievability at a particular source (here, the Weston 4 plant) is a determination left to the permitting agency because the

agency possesses the technical expertise and experience to determine what is “achievable” at a particular source. See *In re: Masonite Corp.*, 5 E.A.D. 551, 560-61 (EAB 1994).⁶ The DNR has the discretion to consider a limit that will be achievable for the lifetime of the facility and allow for operational difficulties. See *In re: Newmont Nev. Energy Inv., LLC*, 12 E.A.D. 429, 440 (EAB 2005) (“because BACT is a preconstruction site-specific determination, BACT review inherently requires a judgment regarding what can reasonably be expected in the future”); see also *In re: Masonite Corp.*, 5 E.A.D. at 560-61 (establishing that the permitting agency may take into account a reasonable safety margin and set an emissions limit that is lower than optimal level because the control efficiency achievable through the use of a given technology may fluctuate).

¶14 A Missouri court examining a regulation comparable to Wisconsin’s regarding “achievability” recently explained that what is “‘achievable’ does not mean a permit limit that mirrors the lowest possible emission rate ever achieved in practice.”⁷ *Chipperfield v. Missouri Air Conservation Comm’n*, 229 S.W.3d 226, 247 (Mo. App. 2007). “If this were so,” the court continued,

the rule would simply require [that the agency] find the lowest possible emission rate being achieved anywhere and set that as the BACT limit....

⁶ Although we are not bound by the Environmental Appeals Board’s (EAB) decisions, its conclusions regarding the factors a permitting agency can consider when determining BACT are instructive and provide guidance. The EAB is the final decision-maker on administrative appeals under all major environmental statutes that the U.S. Environmental Protection Agency administers, including the Clean Air Act. See *Cities of Annandale and Maple Lake NPDES/SDS Permit*, 731 N.W.2d 502, 520 (Minn. 2007).

⁷ Missouri’s regulation defines a BACT emissions rate as one “which the director [of the Missouri Department of Natural Resources] on a case-by-case basis, taking into account energy, environmental and economic impacts and other costs, determines is achievable for the installation.” *Chipperfield v. Missouri Air Conservation Comm’n*, 229 S.W.3d 226, 239 (Mo. 2007).

There is a distinction between what is ‘technically’ or theoretically achievable, and what is ‘achievable’ after considering costs, duration of operations, operational variability, and other case-by-case factors. [The agency] crafted the permit in a way that the facility can meet it over the life of the operation, and therefore built into the limit a ‘safety factor’ to allow for operational variability.

Id.

D. The Weston 4 Permit

¶15 At issue in this appeal are three BACT determinations by the DNR, which include the emissions limit and control technology for sulfur dioxide, the emissions limit for nitrogen oxide, and the visible emissions standard for opacity.

1. Sulfur Dioxide

¶16 Sulfur dioxide is a pollutant caused by the sulfur content in coal. The DNR considered two basic pollution control technologies to limit sulfur dioxide emissions at Weston 4 to a level that represents BACT. The two technologies were wet and dry flue gas desulfurization (FGD) systems, respectively. The DNR determined that the two technologies could meet the same BACT emissions rate, and concluded that the choice of either control technology would not change the BACT emissions rate. Accordingly, it determined that the applicant’s selection of one of the two technologies to control sulfur dioxide emissions could be made based on the consideration of other energy, environmental, and economic factors, consistent with the top-down analysis. WPSC chose, and the DNR approved, dry FGD technology as the BACT for purposes of determining the emissions limit for sulfur dioxide.

¶17 The permit also limits the amount of sulfur that the coal burned at Weston 4 may contain to 1.23 pounds per million British Thermal Units

(“lbs./mmBtu”) averaged over any consecutive thirty-day period. Additionally, pursuant to the ALJ’s order to modify the permit, the DNR included a rebuttable presumption that the permit holder would continue to use low sulfur coal, the fuel Weston 4 was designed to use, from the Powder River Basin in Wyoming. For purposes of the Weston 4 permit, the ALJ determined that Powder River Basin coal is low sulfur coal. The ALJ found that the BACT sulfur dioxide emissions limit for Weston 4, based on the selected coal sulfur content and control technology, is generally consistent with sulfur dioxide emissions limits set for similar facilities that were permitted around the same time as Weston 4.

2. Nitrogen Oxide

¶18 Nitrogen oxide is a pollutant that forms in coal-fired boilers like Weston 4 when nitrogen in coal combines with the air during combustion. The BACT emissions limit for nitrogen oxide is based on a combination of three pollution control technologies. The permit establishes the BACT emissions limits for nitrogen oxide to an annual limit of 0.07 lb./mmBtu, including periods of startup and shutdown, and a thirty-day average of 0.06 lb./mmBtu. The emissions limit was the lowest established year-round limit at that time of any power plant of its kind discussed at the hearing and also provided “some margin for operational difficulties.”

3. Visible Emissions

¶19 The ALJ ruled that “[t]o the extent a visible emissions standard is required, the permit establishes BACT for [particulate matter] and [sulfuric acid mist] visible emissions by setting specific emissions limits for these pollutants.” Particulate matter and sulfuric acid mist are the pollutants that cause visible emissions. The permit established an overall opacity limit of 20% for the main

boiler of the Weston 4 plant.⁸ It did not, however, establish a visible emissions limit based on BACT under WIS. ADMIN. CODE § NR 405.02(7) for each of the regulated pollutants that are visible.

DISCUSSION

I. Standard of Review

¶20 When a party appeals a circuit court order reviewing an agency decision, we review the agency’s decision, not the circuit court’s, and the scope of our review is the same as the circuit court’s. *Hilton v. DNR*, 2006 WI 84, ¶15, 293 Wis. 2d 1, 717 N.W.2d 166. In this case, we review the ALJ’s decision as the DNR’s decision by operation of WIS. STAT. § 227.46(3)(a)⁹ and WIS. ADMIN. CODE § NR 2.155(1)¹⁰ because the DNR adopted the ALJ’s decision as its own and did not seek judicial review of the ALJ’s decision. *See Hilton*, 293 Wis. 2d 1, ¶14 (citations omitted). Consequently, the ALJ’s decision becomes the DNR’s decision and will be accorded the same level of deference given to the agency. *Id.*

⁸ Opacity is defined as “the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.” WIS. ADMIN. CODE § NR 400.02(111).

⁹ WISCONSIN STAT. § 227.46(3)(a) reads as follows:

(3) With respect to contested cases except a hearing or review assigned to a hearing examiner under s. 227.43(1)(bg), an agency may by rule or in a particular case may by order:

(a) Direct that the hearing examiner’s decision be the final decision of the agency[.]

¹⁰ WISCONSIN ADMIN. CODE § NR 2.155(1) (Sept. 2004) provides, in pertinent part, “The administrative law judge shall prepare findings of fact, conclusions of law and decision subsequent to each contested case heard. Unless the department petitions for judicial review as provided in s. 227.46(8) ... the decision shall be the final decision of the department”

¶21 An agency’s interpretation and application of a statute to undisputed facts is a question of law, subject to de novo review by this court. See *Racine Harley-Davidson, Inc. v. State*, 2006 WI 86, ¶¶13-14, 292 Wis. 2d 549, 717 N.W.2d 184. However, a reviewing court may accord one of three levels of deference to an agency’s interpretation and application of statutes: great weight, due weight, or no weight. *Id.*, ¶12.

¶22 Great weight deference is appropriate when: (1) the agency has been charged by the legislature with the duty of administering the statute; (2) the agency’s interpretation is one of long-standing; (3) the agency employed its expertise or specialized knowledge in forming the interpretation; and (4) the agency’s interpretation will provide uniformity and consistency in the application of the statute. *Harnischfeger Corp. v. LIRC*, 196 Wis. 2d 650, 660, 539 N.W.2d 98 (1995). Under the great weight standard, we will uphold an agency’s interpretation as long as it is reasonable and not contrary to the statute’s clear meaning, even if we find a different interpretation to be more reasonable. *UFE Inc. v. LIRC*, 201 Wis. 2d 274, 287, 548 N.W.2d 57 (1996).

¶23 We apply due weight deference “when the agency has some experience in the area, but has not developed the expertise which necessarily places it in a better position to make judgments regarding the interpretation of the statute than a court.” *Id.* at 286. Under the due weight standard, we will uphold the agency’s interpretation if it is reasonable, and no other interpretation is more reasonable than the agency’s, and the agency’s interpretation comports with the purpose of the statute. *Id.* at 286-87. The de novo standard of review is appropriate when the issue is a matter of first impression or when the agency’s position has been so inconsistent so as to provide no real guidance. *Id.* at 285.

¶24 An agency’s interpretation and application of its own regulations are entitled to controlling weight deference. *See DOR v. Menasha Corp.*, 2008 WI 88, ¶¶44, 53, 311 Wis. 2d 579, 754 N.W.2d 95. Under controlling weight deference, we uphold an agency’s interpretation if it is reasonable and is not inconsistent with the language of the regulation or clearly erroneous. *Id.*, ¶54. The standard embodies the principle that an administrative agency is in the best position to interpret and apply its own regulation because it knows the specific purposes of the regulations it has promulgated and has a certain expertise in the area it is charged with regulating. *See Pfeiffer v. Board of Regents*, 110 Wis. 2d 146, 155, 328 N.W.2d 279 (1983).

¶25 We review an administrative agency’s findings of fact applying the “substantial evidence” standard. *Hilton*, 293 Wis. 2d 1, ¶16. Substantial evidence is evidence which, “after considering all the evidence of record, reasonable minds could arrive at the same conclusion.” *Id.* Accordingly, we will uphold the agency’s findings if they are supported by credible and substantial evidence. *Id.*, ¶16. We may not substitute our judgment for the agency’s judgment regarding the weight of the evidence. WIS. STAT. § 227.57(6).¹¹

¶26 The parties dispute the level of deference we should accord the DNR’s interpretation and application of the relevant statutes and rules in setting

¹¹ WISCONSIN STAT. § 227.57(6) reads:

If the agency’s action depends on any fact found by the agency in a contested case proceeding, the court shall not substitute its judgment for that of the agency as to the weight of the evidence on any disputed finding of fact. The court shall, however, set aside agency action or remand the case to the agency if it finds that the agency’s action depends on any finding of fact that is not supported by substantial evidence in the record.

the BACT emissions limits. Sierra Club argues that the DNR's decision is not entitled to any deference. Specifically, Sierra Club contends that deference should be given to the *EPA*, not the DNR, because the interpretation and application of the Clean Air Act and federal regulations administering the Act are at issue in this case. The DNR and WPSC maintain that the DNR's decision is entitled to great weight deference because the DNR is charged with the responsibility of administering the air pollution permit statutes and regulations, it has extensive expertise in administering these laws, and the DNR's interpretation and application of the applicable statutes and regulations are uniform and consistent with its prior decisions. For the reasons provided below, we conclude that the DNR's interpretation and application of the pertinent statutes are entitled to great weight deference, and that its interpretation and application of the pertinent regulations are entitled to controlling weight deference.

¶27 Before considering the present case in light of the four criteria for great weight deference, we note, as a general matter, that a high level of deference is frequently applied in complex environmental cases such as this where the legislature has charged the DNR with administering the applicable statute and highly technical, scientific issues are involved. *See, e.g., Hilton*, 2006 WI 84, ¶17; *Borsellino v. DNR*, 2000 WI App 27, ¶6, 232 Wis. 2d 430, 606 N.W.2d 255; *Sea View Estates Beach Club, Inc. v. DNR*, 223 Wis. 2d 138, 148-49, 588 N.W.2d 667 (Ct. App. 1998). Such deference is appropriate in these cases because DNR is generally more competent than the courts at making legal determinations based on technical and scientific facts. *See Brown v. LIRC*, 2003 WI 142, ¶13, 267 Wis. 2d 31, 671 N.W.2d 279 (stating that “[t]he appropriate level of scrutiny a court should use in reviewing an agency’s decision on questions of law depends on the

comparative institutional capabilities and qualifications of the court and the agency to make a legal determination on a particular issue”).

¶28 Applying the present case to the test for great weight deference, we first note that the legislature has charged the DNR with the administration of the laws that govern environmental regulation under WIS. STAT. ch. 285 in general, *see* WIS. STAT §§ 285.11, 285.13, and with the administration of the air permitting program in particular. *See* WIS. STAT. § 285.60-69.

¶29 Second, the DNR’s interpretation and application of the statutes codifying BACT is clearly one of long-standing. The DNR has administered the Prevention of Significant Deterioration air permit program, which requires BACT determinations, since 1980. *See* Approval and Promulgation of Implementation Plans for Wisconsin, 64 Fed. Reg. 28,745 at 28,746 (May 27, 1999). Since 1996, the DNR has determined BACT for approximately fifty power plants using the same “top-down” approach developed by the EPA and applied in this case.

¶30 Third, we conclude that the DNR has also employed its extensive expertise and specialized knowledge in determining BACT for the Weston 4 permit. After WPSC conducted the top-down BACT analysis, air-modeling experts, engineers, and permit writers at the DNR analyzed the technical, scientific information and set BACT in the draft permit. The DNR modified the permit after it reviewed comments from EPA, Sierra Club, and others. Further, the ALJ considered detailed, technical information from all of the parties during a week-long contested case hearing and ordered further modifications to the BACT emissions limits. The DNR adjusted the permit to comply with the ALJ’s orders. After Sierra Club challenged the DNR’s permit modifications, the ALJ again reviewed the permit and BACT analysis to ensure its compliance with the law.

¶31 Finally, we conclude that the DNR's decision will provide uniformity and consistency in setting BACT emissions limits. Sierra Club's assertion that the DNR's approach in this case was not consistent with its prior decisions ignores the fact that the top-down analysis is a case-by-case basis inquiry that necessarily results in varied outcomes. What matters is whether the DNR properly applied the BACT top-down analysis and reached a reasonable BACT determination based on the facts and circumstances of each pollution source. As we explain later, we are satisfied that the DNR properly applied the BACT analysis and reasonably established the BACT emissions limits for the Weston 4 plant boiler.

¶32 Sierra Club's assertion that deference should be accorded to the EPA and not the DNR is not supported by the statutory and regulatory scheme governing the air pollution permitting process nor by the specific cases it cites in support of its arguments. Specifically, Sierra Club ignores the Prevention of Significant Deterioration permitting process contained in the Act. As we have explained, the Act directs the federal government to delegate to the states primary authority to approve air pollution permits. *See* 42 U.S.C. § 7410(a). In addition, the EPA specifically approved Wisconsin's permitting process plan, which authorizes the state to issue permits. *See* Approval and Promulgation of Implementation Plans for Wisconsin, 64 Fed. Reg. 28,745 (May 27, 1999). Moreover, contrary to Sierra Club's assertions, the DNR applied state law, not federal law, when it issued WPSC's air pollution permit. Even though Wisconsin's statute and regulation defining BACT are based on the Act, the definitions became state law when they were adopted by the Wisconsin Legislature and the DNR. The legislature charged the DNR with the responsibility for applying these definitions in the permitting process.

¶33 The cases that Sierra Club relies on do not support its assertion that a state agency is not entitled to deference when it interprets and applies a state statute or regulation that is based on a federal law. Sierra Club cites several cases where courts resorted to federal authority in interpreting a state law that was modeled after federal law. *See State v. Poly-America, Inc.*, 164 Wis. 2d 238, 245, 474 N.W.2d 770 (Ct. App. 1991); *see also State v. Harenda Enters., Inc.*, 2008 WI 16, ¶¶29-57 307 Wis. 2d 604, 746 N.W.2d 25; *DILHR v. LIRC*, 161 Wis. 2d 231, 247-49, 467 N.W.2d 545 (1991). However, in *Poly-America* and *DILHR*, the appellate court turned to interpretations of the federal regulations merely for “guidance” or “assistance” in interpreting the state law analogue. *Poly-America, Inc.*, 164 Wis. 2d at 243, 245; *DILHR*, 161 Wis. 2d at 247. The *Poly-America* and *DILHR* courts were not compelled to adopt the federal law interpretations. *Harenda* is inapposite, as well, because, unlike the statutes and rules applicable in this case, the DNR rules at issue there *explicitly required* the DNR to follow applicable federal regulations when measuring levels of asbestos contamination. *See Harenda*, 307 Wis. 2d 604, ¶29. Contrary to Sierra Club’s assertions, none of these cases stand for the novel proposition that a state court engaging in the interpretation of state law must follow interpretations of analogous federal statutes.

¶34 Moreover, we are not persuaded that the DNR’s interpretation and application of the BACT definition conflicts with the EPA’s. To insure compliance with federal law, the DNR is required to provide the EPA with a draft permit and final permit language. *See* 42 U.S.C. § 7475(d). The EPA has the opportunity to issue an order or seek injunctive relief if it concludes that the permit terms do not constitute BACT. 42 U.S.C. § 7477. If a conflict exists, the EPA may seek to prevent construction of a proposed facility. *See Alaska Dep’t of*

Envtl. Conservation v. E.P.A., 540 U.S. 461, 468-69 (2004). Tellingly, EPA did not exercise this power by objecting to the DNR’s issuance of the final Weston 4 permit.

¶35 Finally, Sierra Club argues that the DNR’s interpretation and application of its own regulations is not entitled to controlling weight because the DNR interpreted EPA’s regulations and not its own. It asserts that, because WIS. ADMIN. CODE § NR 405.02(7) incorporates language created by Congress in the Clean Air Act, see 42 U.S.C. § 7479(3), the DNR rule is not, in effect, the DNR’s own regulation, and therefore the Department should not receive any deference in its interpretation and application of this regulation. For support, it cites the following language in *Gonzales v. Oregon*, 546 U.S. 243, 257 (2006): “An agency does not acquire special authority to interpret its own words when, instead of using its expertise and experience to formulate a regulation, it has elected merely to paraphrase the statutory language.” We reject Sierra Club’s argument.

¶36 First, as we have explained, Congress has delegated authority to the states to administer their own clean air permitting programs. While the DNR has chosen to largely adopt the definition of BACT contained in the Clean Air Act, it was not required to do so. The rules at issue in this case are the DNR’s own. In addition, Sierra Club’s reliance on *Gonzales* is misplaced. In *Gonzales*, the Supreme Court concluded that the United States Attorney General lacked the authority to issue an Interpretive Rule directed at invalidating Oregon’s assisted suicide statute where the Interpretive Rule merely “parrot[ted]” language in the federal Controlled Substances Act. *Id.* at 257. As the State argues, *Gonzales* is distinguishable because neither an Interpretive Rule nor a question of the DNR’s authority is at issue in this case. It does not matter that the DNR rules “parrot” the Act because the EPA delegated the authority to the DNR to adopt its own rules.

¶37 Accordingly, we apply great weight deference to the DNR's interpretation and application of WIS. STAT. § 285.01(12) because the DNR was charged by the legislature to administer the statute, its interpretations are long-standing, it employed its expertise and specialized knowledge in interpreting and applying the statute, and the agency's interpretation provides uniformity and consistency in the statute's application. We also give the agency's application and interpretation of WIS. ADMIN. CODE § NR 405.02(7) controlling weight deference because it is interpreting its own regulation.

II. The DNR's BACT Determinations

¶38 Sierra Club argues that the air pollution permit issued to WPSC made BACT determinations that were erroneous in four respects. Specifically, Sierra Club contends that: (1) the DNR improperly set the sulfur dioxide limit for the coal used at Weston 4 at a rate that is higher than is achievable; (2) the DNR improperly exercised its discretion by selecting dry FGD control technology rather than wet FGD technology to control sulfur dioxide emissions; (3) the DNR erroneously exercised its discretion by establishing a BACT emissions limit for nitrogen oxide that was higher than the lower emissions limit the record shows is achievable at Weston 4; and (4) the DNR erred by failing to include a visible emissions standard for opacity based on BACT. We address each argument in turn.

A. Sulfur Dioxide

¶39 Sierra Club disputes two aspects of the DNR's BACT determination for sulfur dioxide. It first contends that the agency erroneously chose a limit on coal sulfur content that is higher than what is achievable. Secondly, it argues that the DNR should have chosen wet FGD technology rather than dry FGD

technology as a basis for the BACT emissions limit because the wet FGD technology is more efficient in controlling sulfur dioxide emissions. We begin our analysis with the BACT limit for sulfur dioxide.

1. BACT Emissions Limit for Sulfur Dioxide

¶40 As noted, the permit sets the BACT emissions limit for sulfur dioxide at 1.23 lbs./mmBtu with a control efficiency of 90% based on a rolling thirty-day average. Sierra Club argues that this limit is higher than what the evidence shows is achievable, and therefore violates the definitions of BACT set forth in WIS. STAT. § 285.01(12) and WIS. ADMIN. CODE § NR 405.02(7). Sierra Club points out that WPSC's permit application provided that its anticipated BACT limit for sulfur dioxide would be 0.06 lb./mmBtu and that the Weston 4 plant was designed to burn low sulfur coal. Sierra Club contends that by setting BACT at 1.23 lbs./mmBtu, the DNR is permitting WPSC to burn coal with a higher sulfur content. As a result, Sierra Club argues, the DNR allowed WPSC to burn coal that is dirtier than what is achievable, contrary to the Act. We disagree.

¶41 We first observe that not only did the DNR consider the use of clean fuels as required by the Act, the agency *required* the use of clean fuel in the permit. Furthermore, the ALJ ordered the DNR to modify the permit to include a rebuttable presumption that WPSC continue to use low sulfur coal from the Powder River Basin in order “to ensure that the control efficiency requirement does not lead to the use of higher sulfur coal.” The ALJ also ordered the DNR to modify the permit to include a provision that low sulfur coal would be used “unless there is some unexpected change in the availability of [Powder River Basin] coal.” Moreover, in setting the sulfur dioxide BACT emissions limit for the Weston 4 boiler, the ALJ found that the emissions limit was consistent with

and more stringent than the BACT sulfur dioxide emissions limits set for similar boilers with air permits issued contemporaneously with the Weston 4 permit.

¶42 What Sierra Club appears to argue is that, by setting the BACT limit for sulfur dioxide at a level higher than what WPSC anticipates burning and what in reality the plant will be burning, the ALJ is essentially setting the stage for the possibility that dirtier coal could be used in the future. The problem with this argument, however, is that the ALJ's decision also provides that WPSC will have to seek the DNR's permission to burn dirtier coal and that any DNR decision to allow the use of dirtier coal will be subject to a contested case hearing. Moreover, the ALJ's decision expressly states that the purpose for the rebuttable presumption is to prevent WPSC from using coal with a higher sulfur content.

¶43 Sierra Club also argues that the ALJ failed to provide an adequate explanation for setting BACT for sulfur dioxide at 1.23 lbs./mmBtu. We agree that the decision does did not fully explain the reasons for setting BACT for sulfur dioxide at this level. However, after reviewing the record, it appears that BACT was set at 1.23 lbs./mmBtu in order to accommodate the range of low sulfur coal found at the Powder River Basin. The 1.23 lbs./mmBtu limit was based on the highest known sulfur value from the coal mines in the Powder River Basin. Apparently, this limit would allow for flexibility in the characteristics of the low sulfur coal from the Powder River Basin area, which has eleven different mines. According to petitioner's exhibit 18 concerning Sulfur Emissions Considerations, WPSC estimated its ability to meet the BACT emissions limits proposed by the DNR. In making that estimation, WPSC made certain assumptions, one of which included a range of sulfur content from the various types of coal from the Powder River Basin. The data used by WPSC was obtained from the Powder River coal mines. One of the values of sulfur dioxide was established at 1.23 lbs./mmBtu,

“which is the highest sulfur fuel high sulfur value, ... divided by the low Btu content for that coal. This represents the worst possible case.” Based on this evidence, the BACT limit for sulfur dioxide at 1.23 lbs./mmBtu was reasonable.

¶44 For the reasons explained above, we conclude that substantial evidence supports the sulfur dioxide BACT emissions limit determination, and that this determination was based on a reasonable interpretation of the definition of BACT set forth in WIS. STAT. § 285.01(12) and WIS. ADMIN. CODE § NR 405.02(7).

2. Use of Dry Flue Gas Desulfurization Technology as the Basis for the BACT Emissions Limitation for Sulfur Dioxide

¶45 DNR considered two options for controlling sulfur dioxide emissions to meet BACT for this pollutant, wet and dry flue gas FGD systems. To determine which control technology would meet BACT, the DNR undertook an extensive investigation into both technologies, considered testimony from several technical experts, including Sierra Club’s expert, and critically examined the efficacy of each technology contemporaneously used by other similar plants. Based on this information, the DNR determined that the emissions limits from both control systems was essentially the same, with the wet FGD technology achieving a 1% to 2% higher efficiency rating.

¶46 Because of the minimal difference in emissions efficiency between the two FGD technologies, the DNR looked to other factors under the top-down approach, including energy, environmental and economic factors, in selecting an FGD system to control sulfur dioxide emissions. After considering these qualitative factors, the DNR selected the dry technology.

¶47 Sierra Club argues that, under the BACT analysis, the DNR should have selected the wet FGD system rather than the dry system because the evidence shows that wet technology is more efficient. In other words, according to Sierra Club, dry FGD technology does not meet BACT based on evidence in the record that wet technology is more efficient in controlling sulfur dioxide emissions.

¶48 There are two flaws with this argument. First, at best, the difference in emissions efficiency is only 1% to 2%, which the DNR considered to be minimal. We cannot say that this determination is unreasonable. The DNR has the technical expertise to assess whether the difference in emission control is so minimal as to amount to no real difference at all. Second, the record clearly shows that the DNR properly applied the BACT analysis in deciding to use dry FGD technology.

¶49 Once the DNR compared the effectiveness of the “remaining control technologies,” step 3 in the BACT analysis, it then evaluated “the remaining options taking into consideration energy, environmental and economic impacts,” step 4 in the BACT analysis. The step 4 analysis revealed that wet FGD systems “require more electric energy to operate and are somewhat more expensive than [d]ry FGD systems as a matter of both capital and operating costs.” The ALJ found that “[d]ry technology offers superior performance in controlling fine particulate and sulfuric acid mist emissions relative to Wet FGD,” and the evidence showed that in “recent years wet FGD processes have seldom been applied to low sulfur [Powder River Basin] coal.” The DNR also determined that the dry FGD system impacted the environment less than the wet system because dry technology used less water and created less landfill waste.

¶50 For the foregoing reasons, we conclude that the DNR's selection of dry FGD technology met BACT. We also conclude that substantial evidence supports the DNR's choice of the dry system. The DNR conducted a thorough investigation into the best technologies available, carefully considered testimony presented by both parties and materials submitted to the DNR regarding various emission control technologies, and reached a reasonable determination based on all of the above.

B. Nitrogen Oxide

¶51 The air pollution permit establishes a BACT emissions limit for nitrogen oxide at 0.06 lb./mmBtu on a thirty-day average, not including start-up and shut-down, consistent with the BACT level for the permit's twelve-consecutive-month limit. Sierra Club contends that the DNR set the BACT limit for nitrogen oxide at a level that is not based on the maximum degree of reduction the DNR found achievable. It asserts that lower nitrogen emissions limits are achievable at Weston 4, based on evidence in the record showing other power plants similar to Weston 4 had achieved emissions limits lower than 0.06 lb./mmBtu.

¶52 In deciding BACT emissions limits for nitrogen oxide, the ALJ made the following findings:

- The BACT emissions limit for nitrogen oxide was consistent with or lower than other BACT nitrogen oxide limits at other coal-fired plants that were issued air pollution permits contemporaneous with the Weston 4 plant.

- The only units similar to Weston 4 which have demonstrated lower nitrogen oxide emissions have been ozone season only units that operate only seasonally, unlike the year-round Weston 4 facility.
- At the time of the BACT analysis, the nitrogen oxide emissions limits required in the Weston 4 permit had not yet been achieved in any year-round units fired by Powder River Basin coal that rely upon a selective catalytic reduction (ammonia injection) system.
- The nitrogen oxide emissions limits contained in the permit were the lowest established year-round limits of any permit considered at the hearing.
- Setting the emissions limit at 0.06 lb./mmBtu achieves the dual purpose of meeting BACT limits and providing, in the ALJ's view, "some margin for operational difficulties."

¶53 We conclude that the DNR's BACT emissions limit determination for nitrogen oxide was based on a reasonable interpretation and application of the definition of BACT set forth in WIS. STAT. § 285.01(12) and WIS. ADMIN. CODE § NR 405.02(7), and that substantial evidence supports this determination. The DNR properly considered the emissions limits for coal-fired power plants that require lower nitrogen oxide emissions during peak ozone pollution seasons, as well as other facilities like Weston 4 that run on a continuous year-round basis. The record supports the ALJ's observation that ozone-season only units have lower nitrogen oxide emissions because they can more easily deal with a degradation of its equipment by injecting more ammonia toward the end of the operating season and rehabilitating the equipment during the off-season. The DNR reasonably determined that these lower limits would be difficult for Weston

4 to meet because it is a year-round facility and did not have these same advantages. We note that the DNR found that the BACT emissions limits set for nitrogen oxide were equal to the lowest established year-round limits of any permit discussed at the hearing, a finding that Sierra Club has not disputed.

¶54 Further, the DNR considered what emissions limit would be achievable for the lifetime of the facility and allowed for operational difficulties at this *particular* facility because its analysis is done on a *case-by-case* basis under WIS. ADMIN. CODE § NR 405.02(7). The DNR considered the evidence of BACT emissions limits for nitrogen oxides at other similar coal-fired power plants, and had a rational basis for determining that the lower limits were not achievable at Weston 4.

¶55 Sierra Club asserts that 0.015 lb./mmBtu represents BACT for nitrogen oxide based on the ALJ's own observation that the DNR's engineering expert miscalculated the selective catalytic reduction inlet concentration and the control efficiency rate. Sierra Club argues that after adjusting for the expert's miscalculation, the DNR determined that the true selective catalytic reduction inlet rate at Weston 4 was 0.15 lb./mmBtu, and when that number is multiplied by the true selective catalytic reduction efficiency rate of 90%, that results in an achievability rate of 0.015 lb./mmBtu. This number, according to Sierra Club, is the appropriate BACT limit for nitrogen oxide and the DNR erred by setting BACT at 0.06 lb./mmBtu. We reject this argument.

¶56 As the ALJ observed, Sierra Club ignores the evidence that 0.015 lb./mmBtu has not been achieved by any similar facility in operation at the time the permit was issued. While this rate may be theoretically achieved, there is no evidence in the record that this rate limit is achievable in practice. As we noted,

the DNR compared the technology proposed at Weston 4 with that used at existing year-round facilities, and found that the BACT emissions limit established for Weston 4 was at least the same as, if not lower than, the limits for other facilities. Moreover, as we have noted, the DNR is vested with the discretion to consider a limit that will be achievable for the lifetime of the facility and allow for operational difficulties. *See In re Newmont Nev. Energy Inv., LLC*, 12 E.A.D. at 440. Sierra Club has not shown that the BACT limit for nitrogen oxide set by the DNR is not reasonably based on the evidence of record.

¶57 Therefore, for the reasons explained above, we conclude that the DNR's BACT emissions limit of 0.06 lbs./mmBtu for nitrogen oxide was based on a reasonable interpretation and application of the definition of BACT set forth in WIS. STAT. § 285.01(12) and WIS. ADMIN. CODE § NR 405.02(7), and that substantial evidence supports this determination.

C. Visible Emissions Standard

¶58 Sierra Club argues that the ALJ and DNR erred by not including a BACT visible emissions limit for those pollutants that are visible, which include particulate matter, PM10 and sulfuric acid, for the main boiler at the Weston 4 plant. According to Sierra Club, because the definition of BACT in WIS. ADMIN. CODE § NR 405.02(7) includes a visible emissions standard, the DNR is required by law to include a visible emissions limit based on BACT for each visible pollutant in approving a new source. WPSC and the DNR argue that establishing BACT emissions limits for the pollutants that make up visible emissions exiting the Weston 4 main boiler smoke stack—particulate matter, sulfuric acid mist, and PM10—achieves the same result as establishing a BACT visible emissions limit for each visible pollutant, and therefore it is not necessary to set a visible

emissions standard. Sierra Club responds by arguing that the definition of BACT plainly requires the DNR to set a visible emissions limit and that simply setting BACT limits for the pollutants that make up visible emissions is insufficient under the definition. We agree with Sierra Club.

¶59 As we have explained, the Clean Air Act requires all states to adopt an implementation plan mandating any major stationary pollution source to conduct an analysis to determine the best available control technology (BACT) as part of a state’s implementation plan. *See* 42 U.S.C. §§ 7410(a), 7479(3). To review, WIS. ADMIN. CODE § NR 405.02(7) defines BACT as

an emissions limitation, including a visible emissions standard, based on the maximum degree of reduction for each air contaminant subject to regulation under the Act which would be emitted from any proposed major stationary source or major modification which the department, on a case-by-case basis ... determines is achievable for such source

A visible emissions standard for coal-fired plants limits the amount of opacity¹² of emissions exiting a particular smoke stack, which is measured by a continuous monitoring system that complies with the EPA’s standards. *See* WIS. ADMIN.

¹² One federal circuit court provided the following description of opacity:

“Opacity” refers to the visibility of the emissions exiting the stack. A 100% opacity would mean that no light at all could pass through the emissions, whereas 0% opacity would mean light passes completely through the emissions and they are effectively invisible. While opacity is not itself a regulated pollutant, it acts as a measurement surrogate for particulate matter, which is a regulated pollutant for which the EPA has set national ambient air quality standards.

Sierra Club v. Georgia Power Co., 443 F.3d 1346, 1350 n.4 (11th Cir. 2006).

CODE §§ NR 439.06(9),¹³ 439.09(1),¹⁴ and 439.095(5)(a)1.¹⁵ The opacity limit for the type of pollution source such as the Weston 4 main boiler is 20% based on the requirements set forth in WIS. ADMIN. CODE § NR 431.05, WIS. ADMIN. CODE

¹³ WISCONSIN ADMIN. CODE § NR 439.06(9) reads as follows:

METHODS AND PROCEDURES FOR DETERMINING COMPLIANCE WITH EMISSIONS. (a) The owner or operator of a source shall use one of the following methods to determine compliance with a visible emission limitation:

1. Method 9 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13).

2. Install, calibrate, maintain and operate a continuous emission monitor that meets the applicable performance specifications in 40 CFR part 60, Appendix B or 40 CFR part 75, Appendices A to I, incorporated by reference in s. NR 484.04(21) and (27), and follow a quality control and quality assurance plan for the monitor which has been approved by the department.

(b) The owner or operator of a source shall use Method 22 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), to determine compliance with a no visible emission requirement.

¹⁴ WISCONSIN ADMIN. CODE § 439.09(1) states that “[c]ontinuous emissions monitoring systems for measuring opacity shall comply with all the provisions and requirements in Performance Specification 1 in 40 CFR part 60, Appendix B, incorporated by reference in s. NR 484.04(21).

¹⁵ WISCONSIN ADMIN. CODE § 439.095(5)(a)1. reads:

1. Opacity. The owner or operator of any steam generating unit which has a total heat input capacity equal to or greater than 250 million Btu per hour shall install, calibrate, maintain and operate a continuous monitoring system which meets the performance specifications of sub. (6) for the measurement of opacity from each stack serving a coal fired boiler or boilers with a maximum combined coal burning rate equal to or greater than 25,000 tons per year, unless the source utilizes an alternative method of compliance determination approved, in writing, by the department.

§ 440.20(3).¹⁶ Consistent with these regulations, the permit issued in this case included a 20% overall opacity limit. However, the permit does not set an opacity limit based on BACT under § NR 405.02(7).

¶60 In addressing Sierra Club’s request for a visible emissions limit for particulate matter and sulfuric acid mist, the ALJ began by making the following factual findings relating to visible emissions:

36. [DNR’s expert] Mr. Hanson testified, and [Sierra Club’s expert] Dr. Fox essentially concurred, that requiring emission limits on [particulate matter and sulfuric acid mist] (as the WDNR has in this permit) will have the effect of reducing visible emissions of these pollutants.... Indeed, Mr. Hanson testified that such direct emissions limits are “a more effective” way to limit particulate matter and acid gases....

¹⁶ WISCONSIN ADMIN. CODE § 440.20(3) states:

STANDARD FOR PARTICULATE MATTER. (a) On and after the date on which the performance test required to be conducted under s. NR 440.08 is completed, no owner or operator subject to the provisions of this section may cause to be discharged into the atmosphere from any affected facility any gases which contain particulate matter in excess of:

1. 13 ng/J (0.03 lb./million Btu) heat input derived from the combustion of solid, liquid or gaseous fuel;
2. One percent of the potential combustion concentration (99% reduction) when combusting solid fuel; and
3. 30% of potential combustion concentration (70% reduction) when combusting liquid fuel.

(b) On and after the date the particulate matter performance test required to be conducted under s. NR 440.08 is completed, no owner or operator subject to the provisions of this section may cause to be discharged into the atmosphere from any affected facility any gases which exhibit greater than 20% opacity (6-minute average), except for one 6-minute period per hour of not more than 27% opacity.

In light of these findings, the ALJ concluded: “To the extent a visible emissions standard is required, the permit establishes BACT for [particulate matter] and [sulfuric acid] visible emissions.”

¶61 There are several problems with the above analysis. First, and most importantly, it ignores the definition of BACT set forth in WIS. ADMIN. CODE § NR 405.02(7), which plainly requires “an emissions limitation, including a visible emissions standard.” We conclude that this language unambiguously requires the DNR to establish a visible emissions limit based on BACT, expressed as a percentage of opacity, for those pollutants that are visible, which, in this case, includes particulate matter, PM10 and sulfuric acid. The DNR may not interpret its own rules in a manner that disregards the plain meaning of the rules. *See Bar-Av v. Psychology Examining Bd.*, 2007 WI App 21, ¶10, 299 Wis. 2d 387, 728 N.W.2d 722 (where language of a rule is clear and unambiguous, the manifest intent of the rules should be applied to the facts and circumstances of the question presented).

¶62 Second, the ALJ’s decision and WPSC do not provide any authority for the proposition that the DNR may use BACT limits for the pollutants that make up visible emissions as a surrogate for a BACT visible emissions limit.¹⁷ In its brief, the DNR asserts that “[t]he law merely authorizes and embraces a visible emissions standard within the definition of BACT emissions limitations.”

¹⁷ Sierra Club directs us to a preliminary permit issued for the Fort Howard Paper Company coal-fired plant in Green Bay, where a visible emissions limit was established at 10% opacity within any stack based on BACT. DNR does not explain why it was unable to follow its own regulations in this case, as it did with the Fort Howard permit, and set an opacity limit for visible emissions based on BACT, rather than simply use BACT limits that make up visible emissions.

However, the DNR provides no developed argument in support of this assertion. In addition, the DNR's construction of the definition of BACT renders surplusage the inclusion of a visible emissions standard as a part of BACT. This is not a reasonable reading of the rule and is inconsistent with the language of the regulation defining BACT.

¶63 Third, while the experts for the DNR and Sierra Club both testified that limiting visible emissions will limit the emissions of particulate matter and sulfuric acid mist, none of the experts testified that limiting the emissions of these pollutants would bring visible emissions within the limits prescribed by law,¹⁸ *see*

¹⁸ Dr. Fox, Sierra Club's expert, testified as follows:

Q. If you limit visible emissions, do you limit particulate matter and acid gases?

A. Yes....

....

Q. So Doctor Fox, is it your opinion that a 10 percent opacity limit would reduce the emissions of particulate matter and acid gases below the limit in the permit?

A. It might.... [T]here is not any analysis in the record that shows the correspondence between opacity and particulate matter or sulfuric acid mist. It won't necessarily reduce it proportionately, but it should reduce it.

DNR's expert, Jeff Hanson, provided the following testimony:

Q. Final question, are you aware of whether the department conducted a BACT analysis for visible emissions from the boiler at Weston 4?

A. The department would not have conducted a BACT analysis for visible emissions. Visible emissions, although visible emission standard is mentioned in the definition of BACT, it's not really—opacity is not necessarily a regulated pollutant under the PSD rules.

(continued)

WIS. ADMIN. CODE §§ NR 431.05 (20% opacity), 440.20(3) (20% opacity for particulate matter), let alone whether the opacity limit would meet BACT under WIS. ADMIN. CODE §§ 405.02(7) and 405.08(3). In addition, both experts disavowed any direct correlation between limiting opacity and restricting the emissions of particulate matter and sulfuric acid gases. Thus, while the decision correctly states that both experts agreed that limiting particulate matter and sulfuric acid gas emissions would have the effect of limiting visible emissions, it wrongly determined that establishing BACT for these pollutants would result in visible emissions that meet the opacity limit set forth in the rules.

¶64 WPSC and the DNR contend that, under Wisconsin’s regulatory scheme, there is no requirement for a separate BACT analysis for visible emissions, because visible emissions are not a “regulated air contaminant” under WIS. ADMIN. CODE § NR 405.02(25i); *see also Sierra Club v. Georgia Power Co.*, 443 F.3d 1346, 1350 n.4 (11th Cir. 2006) (“[O]pacity ... is not itself a regulated pollutant.”). This argument about whether a BACT analysis is required for visible emissions, however, is not germane to the question of whether the DNR must establish a BACT visible emissions limit under its own regulations. If WPSC and the DNR mean to suggest that, because visible emissions are not a “regulated air

If you look at the significant thresholds under the definition of significant within the PSD rule, you will not note that—you will not note visible emissions there. However, regulating other pollutants such as particulate matter would restrict visible emissions.

- Q. Is another way to restrict particulate matter and acid gases to limit opacity?
- A. Possibly indirectly. But the more effective way to limit particulate matter and acid gases is establish a limit on those pollutants themselves.

contaminant,” it is therefore unnecessary to establish an opacity standard for visible emissions, this argument is belied by the existence of other regulations limiting the opacity of visible emissions that, collectively, are not a “regulated air contaminant.” See WIS. ADMIN. CODE §§ NR 439.06(9), 439.09(1), and 439.095(5)(a)1 (regulations limiting density of smoke from smoke stacks).

¶65 For the reasons provided above, we conclude that the DNR erred as a matter of law by failing to establish a BACT visible emissions limit for opacity, expressed as a percentage of opacity, for those pollutants that are visible, for the Weston 4 plant main boiler.

CONCLUSION

¶66 In sum, we uphold as reasonable the DNR’s BACT limits for sulfur dioxide and nitrogen oxide emissions in the Weston 4 permit, and its selection of dry FGD technology to control sulfur dioxide emissions. Moreover, we conclude that the DNR’s determinations regarding BACT limits for sulfur dioxide and nitrogen oxide emissions and its selection of dry FGD technology are supported by substantial evidence in the record. We further conclude, however, that the failure of the DNR to establish a BACT visible emissions limit, expressed as a percentage of opacity for those pollutants that are visible for the Weston 4 main boiler was based on an unreasonable interpretation of WIS. ADMIN. CODE § 405.02(7) and is inconsistent with the language of the regulation. We therefore affirm in part, and reverse in part, the circuit court’s decision upholding the DNR’s decision, and remand for the DNR to reopen the permit to establish a BACT visible emissions limit for those emissions that are visible.

By the Court.—Order affirmed in part; reversed in part and cause remanded for further proceedings.

Recommended for publication in the official reports.

