IN THE COMMONWEALTH COURT OF PENNSYLVANIA

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: No. 2355 C.D. 2006
: Submitted: March 9, 2007
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BEFORE: HONORABLE BONNIE BRIGANCE LEADBETTER, President Judge HONORABLE DAN PELLEGRINI, Judge HONORABLE MARY HANNAH LEAVITT, Judge

OPINION BY JUDGE PELLEGRINI FILED: April 11, 2007

Dennis Groce, National Parks Conservation Association, Group Against Smog and Pollution, and Phil Coleman (collectively, Association) appeal from an order of the Pennsylvania Environmental Hearing Board (EHB) denying their appeal to the Department of Environmental Protection's (DEP) approval of Wellington Development-WVDT-LLC's (Wellington) plan to construct an electric generating power plant.

This matter involves an application by Wellington for the Greene Energy Resource Recovery Project that involved the construction of a 525 megawatt electric power generation facility (Facility) in Cumberland Township, Greene County, Pennsylvania. Numerous types of combustion units are used to generate steam that is, in turn, used to generate electricity. Wellington's application proposed to use two circulating fluidized bed combustion units (CFB combustors) that would burn a blend of 15% run of mine coal and 85% bituminous waste coal (waste coal) which was the byproduct of past mining operations and located in vast refuse piles called garbage of bituminous (GOB) near the site for the Facility.

The combustion of coal or waste coal resulted in the emission of a number of pollutants which were regulated under the federal Clean Air Act (CAA), including sulfur dioxide (SO₂) and oxides of nitrogen (NO_x),¹ which are the subject of this appeal. The CAA was enacted to, among other things, "protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." 42 U.S.C. §7401(b)(1). To achieve this goal, Congress instructed the United States Environmental Protection Agency (EPA) to develop limits on the maximum concentrations of various pollutants allowable in different areas of the country known as National Ambient Air Quality Standards (NAAQS). 42 U.S.C. §7409(a)(1)(A). An area could be in compliance or in "attainment" with NAAQS for some pollutants while not in compliance or in "nonattainment" for other pollutants. Sources in an area in attainment were subject to the Prevention of Significant Deterioration (PSD) requirements while sources in an area in nonattainment were subject to the New Source Review (NSR) requirements. To enforce NAAQS, the CAA employed a system of cooperative federalism requiring states to create a state implementation plan (SIP) "provid[ing] for implementation, maintenance, and enforcement" of the NAAQS. 42 U.S.C. §7410(a)(1).

¹ Because ozone is not emitted into the atmosphere but created by a photochemical reaction, it cannot be regulated directly; therefore, ozone precursors or substances that combine to form ozone must be regulated, including NO_x and volatile organic compounds.

The EPA approved Pennsylvania's SIP which required the issuance of a plan approval before construction could begin on any new source of air contamination. 25 Pa. Code §127.11.² The SIP adopted NSR regulations for the DEP to implement requiring, inter alia, a facility to comply with the Lowest Achievable Emission Rate (LAER) for pollutant emissions in nonattainment areas. It incorporated the federal PSD permit regulations to serve as Pennsylvania's regulations except that the DEP was primarily the agency with authority for an area in attainment. 25 Pa. Code §127.83. The PSD regulations established allowable increments for pollutants, which was the amount of additional pollution that could be safely added to an area by new or existing sources without endangering that area's attainment status. 40 C.F.R. §52.21(b)(13)(ii). For PSD review, the United States was divided into three Classes whereby the applicable increment was much lower in Class I areas³ than in Class II or Class III areas. 40 C.F.R. §52.21(e). The Federal Land Managers (FLM) for potentially impacted Class I areas were affirmatively responsible for evaluating whether a proposed source's emissions would have an adverse impact on air quality related values (AQRVs) such as visibility. 40 C.F.R. §52.21(p). Additionally, the general public was required to receive notice and an opportunity to comment on any proposed plan approval.

² Pennsylvania enacted the Air Pollution Control Act (APCA), Act of January 8, 1960, P.L. (1959) 2119, *as amended*, 35 P.S. §4002(a), to protect, among other things, the Commonwealth's air resources for the protection of public health, safety and well-being of its citizens and for the development, attraction and expansion of industry, commerce and agriculture. Under Sections 5(a)(1) and (8) of the APCA, 35 P.S. §4005(a)(1) and (8), it assigned responsibility to the Environmental Quality Board to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution and for the implementation of the CAA.

³ Class I areas were specific parks and wilderness areas deemed significant enough to be worthy of special environmental protections. 40 C.F.R. §52.21(e).

On June 21, 2005, the DEP approved Wellington's plan (Plan Approval) to construct the Facility at a location in attainment for SO₂ but in nonattainment for NO_x. Prior to approval, Wellington and the DEP met with the U.S. Department of Agriculture's Forest Service's FLM for Otter Creek and Dolly Sods Wilderness in the Monongahela National Forest in West Virginia and the James River Face Wilderness Area in the Thomas Jefferson National Forest in Virginia, and also the Department of Interior's National Park Service's FLM for Shenandoah National Park in Virginia. Those were the FLMs who were responsible for oversight of the Class I areas evaluated for potential impacts from the Facility. Wellington submitted its proposed protocol for modeling the impacts of the Facility's emissions on Class I areas to the Wellington's consultant, ENSR International (ENSR), an environmental FLM. engineering company, provided a copy of Wellington's application to both the FLM, who participated in the review process, and the DEP, who, in turn, published notice of its receipt. After reviewing the application, the DEP published a notice of intent to issue a plan approval and a notice of public conference⁴ which contained a notice of the degree of increment consumption in Class II areas only. In response to public comments, the DEP required significant changes to the draft Plan Approval, and the Forest Service accepted Wellington's mitigation proposal indicating that the Forest Service would not oppose an issuance of Plan Approval.

After the DEP published a notice of Plan Approval, on September 1, 2005, it modified that approval in response to revisions requested by the FLM for

⁴ The DEP may, in its discretion, convene a public hearing or public conference on any application for plan approval. 25 Pa. Code §127.48(a).

Shenandoah. The modification provided for the acquisition and retirement of emission reduction credit $(\text{ERC})^5$ for an additional 411 tons of SO₂ in addition to the 2,088 tons of SO₂ ERC that was included in the original mitigation plan incorporated into the Plan Approval. On December 17, 2005, the DEP published notice of and solicited public comment on the degree of increment consumption expected to result from the Facility in Class I areas which was omitted from earlier notices. The DEP amended that notice on January 14, 2006, to correctly identify the computer model used to evaluate emission impacts on Class I areas as the CALPUFF model.⁶ The Plan Approval was again amended on June 12, 2006, to correct an error in the number of ERC Wellington was required to purchase.

The Association appealed the DEP's approval and later amended that appeal several times over objection until it was approved. It contended that the Plan Approval failed to require an emission limit which reflected Best Available Control Technology for NO_x ; was based on inadequate modeling analyses of impacts to Shenandoah; did not include an adequate increment consumption analysis for Shenandoah under the PSD program; did not require adequate mitigation of adverse

⁵ 25 Pa. Code §121.1 defines ERC as "[a] permanent, enforceable, quantifiable and surplus emissions reduction which can be considered as a reduction for the purpose of offsetting emissions increases."

⁶ CALPUFF was commonly used for Class I modeling and had been approved by EPA. It was an air dispersion model that utilized a puff distribution rather than a steady state distribution. The air model selected hundreds or thousands of points in the area of interest and then predicted the concentration of pollution at each point based on the averaging time for which the increment was set, such as three hours, 24 hours or one year. The model was run separately for each pollutant, and could run to determine the concentration of pollution from one source or a combination of sources called cumulative modeling.

impacts on visibility in Shenandoah; and failed to include emission limits which reflected the LAER for NO_x emissions. It also contended that DEP did not provide notice to the public regarding increment consumption in Class I areas under the PSD program; did not provide adequate notice, necessary information or allow adequate time for review and comment on the application to the FLM; and approved the plan in violation of 40 C.F.R. §§52.21(k) and (l) because Wellington used a refined version of the CALPUFF air modeling program in its analysis of impacts to Class I areas without written approval from the DEP or the EPA. The parties then filed cross-motions for summary judgment relating to the adequacy of notice for both the published public notice and the notice to the FLM for Shenandoah, which were denied.

Following an extensive *de novo* hearing before the EHB, the EHB dismissed the Association's appeal finding, among other things, that the NO_x emissions limit established by the DEP for the Facility met the LAER requirement set forth in both federal and Pennsylvania air quality regulations; the DEP properly determined that the Facility would not cause or contribute to an increment violation at Shenandoah; the DEP properly determined that the mitigation measures required by the Plan Approval would adequately protect the AQRVs in Shenandoah; the DEP erred in failing to provide notice of Class I area increment consumption in its initial public notice, but its supplemental notice after Plan Approval provided adequate notice and opportunity for public comment; and the DEP correctly interpreted 25 Pa.

Code \$127.45(4) with regard to publishing notice of the degree of increment consumption. The Association filed this petition for review,⁷ contending:

(1) the EHB improperly determined that the NO_x emission limit for the Facility met the LAER established by federal and state law;

(2) the EHB erred in concluding that the Facility would not cause or contribute to an increment violation of SO_2 in Class I areas;

(3) the EHB erred in concluding that the DEP provided adequate public notice of the degree of increment consumption in Class I areas;

(4) the EHB incorrectly determined that the testimony of Robert J. Paine (Paine), Wellington's computer modeling expert regarding visibility impacts, met the test in *Frye v*. *United States*, 293 F. 1013 (D.C. 1923);

(5) the EHB erred in concluding the FLM comment letters on the Plan Approval were inadmissible hearsay; and

(6) the EHB erred in concluding that certain mitigation measures contained in the Plan Approval mitigated the Facility's adverse impacts on visibility in Class I areas.

⁷ Our scope of review of an EHB decision is limited to a determination of whether the necessary findings of fact were supported by substantial evidence, whether an error of law was committed, or whether constitutional rights were violated. *Department of Environmental Protection v. City of Philadelphia*, 692 A.2d 598 (Pa. Cmwlth. 1997). It is well established that an agency's interpretation of the statutes and regulations that it is authorized to enforce and implement is entitled to deference. *Sunoco, Inc. v. Department of Environmental Protection*, 865 A.2d 960 (Pa. Cmwlth. 2005). Where a statutory scheme is technically complex, "a reviewing court must put aside its discretion [in favor of] the expertise of the administrative agency." *Id.* at 970.

The Association argues that the EHB's creation of a class or category of source called circulating fluidized bed combustors burning bituminous waste coal (GOB-fired CFB combustor) was impermissibly narrow, and a lower NO_x emission rate was achievable and had been achieved in similar power plants.⁸ It further contends that even if it was a proper class or category of source, the EHB's determination that the Facility met the LAER standard was contrary to law and not supported by substantial evidence because the emission limitation for NO_x of 0.10 lb/MMBTU on a 24-hour average and 0.08 lb/MMBTU on a 30-day average in the Plan Approval did not satisfy the statutory and regulatory definitions of LAER.⁹

There are two ways that the LAER standard can be established:

(i) The rate of emissions based on the following, whichever is more stringent:

(A) The most stringent emission limitation which is contained in the implementation plan of a state for the class or category of source unless the owner or operator of the

⁸ The Association also argues that costs were inappropriately considered in determining the LAER standard; however, there was no record evidence to support this contention as the DEP only requested cost information to address a third party's inquiry, and the EHB specifically stated "...costs are irrelevant to our analysis." (Reproduced Record at 1685a; EHB's decision, dated November 22, 2006, at 57.)

⁹ The Association argues that only federal agency rulings and federal case law provide guidance in interpreting state regulations that follow federal regulations, *Gosewisch v. Department of Revenue*, 397 A.2d 1288 (Pa. Cmwlth. 1979); however, Pennsylvania undertook its own rulemaking and promulgated its own NSR regulations which are codified at 25 Pa. Code Chapter 127, Subchapter E.

proposed source demonstrates that the limitations are not achievable.

(B) The most stringent emission limitation which is achieved in practice by the class or category of source.

25 Pa. Code §121.1 (defining LAER). In order to be a source of an LAER standard, an emission rate must meet three criteria: (1) it must be an emission limitation; (2) it must apply to the same class or category of source as the facility under review; and (3) it must be achievable or achieved in practice.

A.

As to whether a GOB-fired CFB combustor was a proper class or category for establishing LAER, the term "class or category of source" in the LAER definition is not defined in any federal or Pennsylvania law or regulation.¹⁰ William

The Association further argues that Congress authorized EPA to develop groupings of sources for a specific purpose under the New Source Performance Standards (NSPS) and Maximum (Footnote continued on next page...)

¹⁰ The Association argues that the Facility falls within a "major emitting facility" and "major stationary source" under the CAA because those terms included fossil fuel fired steam electric plants. 42 U.S.C. §§7479(1) and 7491(g)(7). However, those sections represented thresholds for applicability of visibility protection and different aspects of PSD review which applied in areas in attainment with NAAQS. NO_x was regulated because it was a precursor to the formation of ozone, a pollutant in nonattainment with NAAQS. The Association also argues that the Facility falls within 42 U.S.C. §7412(a)(8) defining "electric steam generation unit" as "any fossil fuel fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale." However, the purpose of that term was to define the scope of studies on emission of hazardous air pollutants which was unrelated to determining an emission limitation. 42 U.S.C. §7412(n)(1). Moreover, Congress' express words of "for purposes of this part" and "for purposes of this section" in the sections defining the above terms showed its intent that the terms applied only to the sections in which they appeared and not to LAER or other parts of the CAA. Because Congress omitted definitional language from the NSR section of the CAA which contained LAER, it neither intended to define LAER "class or category of source" nor apply other groupings of sources in the CAA to LAER.

J. Charlton (Charlton), the Chief of the NSR Section in the Southwest for the DEP, testified that determining "class or category" for LAER was part of the DEP's engineering evaluation of the application. In determining that the Facility's class or category of source was a GOB-fired CFB combustor, the DEP focused on fuel type and combustion technology.

The record evidence demonstrated a significant difference between waste coal and coal and GOB-fired CFB combustors and pulverized coal (PC) boilers. Waste coal consisted of rock and other materials removed from coal when the mined coal was processed for use making it a low grade fuel with a great deal of variability in composition and quality. Coal was a fairly uniform and consistent fuel. Waste coal had a heat content of about one half or less of coal, and the amount of ash was much greater in waste coal than in coal. Waste coal had more sulfur than coal, and because of its lack of uniformity, waste coal had higher concentrations of other polluting substances like nitrogen.

PC boilers burned coal that had been finely ground to the consistency of talcum powder and then blown into a furnace where it burned very quickly at temperatures of 2,500 to 3,500 degrees Fahrenheit. This high temperature created a

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Achievable Control Technology (MACT) which regulated emission of hazardous air pollutants. However, the NSPS was less stringent than LAER because it took into account mitigating factors such as cost, energy requirements and non-air quality impacts, and MACT was based on the average of the best 12% of sources, while LAER was based on the most stringent emission limitation achieved in practice.

great deal of NO_x , and emission of SO_2 and NO_x in a PC boiler was controlled by add-on pollution controls that were external to the boiler. GOB-fired CFB combustors burned waste coal at temperatures of 1,600 to 1,800 degrees Fahrenheit, and it burned 60 times slower than PC boilers. It could handle larger pieces of material which was typical for waste coal, and limestone was added to control SO_2 The waste coal burned in a bed of sand and limestone which was production. suspended by injected air causing the bed to churn, erode and grind. Emissions of SO₂ and NO_x were normally lower from GOB-fired CFB combustors than PC boilers because of the lower combustion temperature and limestone injection; however, PC boilers had more add-on pollution control options. Furthermore, PC boilers could use Selective Catalytic Reduction (SCR) or Selective Non-Catalytic Reduction (SNCR) to control NO_x. SCR had not been demonstrated on any GOB-fired or coal-fired CFB combustor, and SNCR was the NOx control of choice for GOB-fired CFB combustors.

Because all of this is substantial evidence of the significant differences in the properties of waste coal and coal and the mechanisms for burning them, the EHB did not err in creating an LAER class or category of source called a GOB-fired CFB combustor.

B.

Even if the GOB-fired CFB combustor was a proper class, the Association contends that the EHB erred where it found that the GOB-fired CFB combustor achieved the most stringent emission limitation over any other facility in the same class. However, the record evidence demonstrated that under subsection (B) of the definition of LAER,¹¹ no GOB-fired CFB combustor had achieved a lower NO_x emission limitation than the 0.1 lb/MMBTU achieved by the Facility.¹² The DEP's reviewing engineer's independent examination, along with information about NO_x emission limitations in other GOB-fired CFB combustor permits compiled by ENSR and included in the Plan Approval, confirmed that there was no GOB-fired CFB combustor with a more stringent emission limitation which had been "achieved in practice."¹³ Because there was substantial evidence that no other

The owner or operator of each utility boiler located in [DFW] ozone nonattainment area shall ensure that emissions of NO_x do not exceed: 0.033 lb/MMBTU heat input from boilers which are part of a large DFW system, and 0.06 lb/MMBTU heat input from boilers which are part of a small DFW system, on a daily average *except as provided in §117.108 and §117.580* of this title.

30 TAC §117.106(b). (Emphasis added.) This regulation actually employed a "cap and trade" scheme, not an emission limitation, which permitted a facility to comply by taking credit for shut down and curtailed sources or by purchasing ERC from other facilities rather than meeting a NO_x emission limitation. Pennsylvania does not allow ERC to "be used to achieve compliance with...LAER or other emission limitations...." 25 Pa. Code §127.206(i).

 12 The NO_x emission limitation ultimately imposed in the Plan Approval was even more stringent at 0.08 lb/MMBTU.

¹³ The Association erroneously relied on Kentucky Mountain, a facility that did not demonstrate a more stringent emission limitation achieved in practice because it had not been constructed, and on Subgrass and AES Warrior Run, facilities with less stringent emission limitations and only periodic lower emission rates, which were not relevant. It also asserts that SCR was LAER for the Facility, but LAER was an emission rate and not a control technology. Further, the evidence demonstrated that application of SCR to GOB-fired CFB combustors presented numerous technical challenges that had not been resolved, including chemicals that could poison the catalyst beds, high dust loadings that blinded or coated the catalyst beds, high concentrations of **(Footnote continued on next page...)**

¹¹ A determination was made under that section because there was no evidence that any emission limitation in any SIP would be more stringent than the Facility's emission limitation. The Association erroneously relied on the Dallas/Fort Worth (DFW) area SIP to show an achieved lower NO_x emission limitation. The DFW regulation provides:

facility in the same class had achieved a lower NO_x emission limitation than the Facility's GOB-fired CFB combustor, the EHB did not err in imposing a NO_x emission limitation of 0.1 lb/MMBTU.

II.

The Association contends that the EHB erred in determining that the DEP was permitted to use significant impact levels (SIL) as a method for screening *de minimis* air quality impacts from the Facility's emission in its analysis of whether the Facility would "cause or contribute" to any violation of the PSD allowable increment of increased ambient pollutant concentrations in Shenandoah. It argues that if the computer modeling predicted any impacts above zero from the Facility at a specific time and point when the cumulative impacts of all sources exceeded the applicable PSD increment, no PSD approval could be issued.

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lime in the gas stream, uneven particulate size that adversely affected performance, high exhaust gas temperature that would not allow toxic metals to condense and be collected in the baghouse which could destroy or damage the filtering bags, and exhaust gasses that were too cool for the catalyst to work.

Under 40 C.F.R. §52.21(k),¹⁴ before the DEP may issue a plan approval for a source subject to PSD review, the owner or operator of the proposed source must demonstrate that allowable emission increases would not "cause or contribute" to air pollution in violation of the NAAQS or the allowable increment. The DEP interpreted¹⁵ this to mean a new source would only cause or contribute to an amount exceeding increment or "consume" increment, if its modeled contribution at a specific time and point was greater than a *de minimis* threshold, commonly known as SIL.¹⁶ While never finalized, the EPA's 1990 draft version of its New Source Review Workshop Manual (NSR Manual), which included SIL as a *de minimis*

The owner or operator of the proposed source or modification shall demonstrate that allowable emission increases from the proposed source or modification, in conjunction with all other applicable emission increases or reductions (including secondary emissions), would not **cause or contribute** to air pollution in violation of:

(1) Any national ambient air quality standard in any air quality control region; or

(2) Any applicable increase over the baseline concentration in any area. (Emphasis added.)

¹⁵ The primary rule of statutory and regulatory interpretation is to further the intent of the General Assembly. 1 Pa. C.S. §1921(a).

¹⁶ Congress created PSD review to protect air quality in areas meeting the NAAQS. 42 U.S.C. §7470(1) provides PSD review is "to protect the public health and welfare from any actual or potential adverse effect which in the Administrator's [DEP] judgment may reasonably be anticipate[d] to occur from air pollution ... [and] to insure economic growth will occur in a manner consistent with the preservation of existing clean air resources."

¹⁴ 40 C.F.R. §52.21(k), incorporated by reference in Pennsylvania by 25 Pa. Code §127.83, provides:

threshold,¹⁷ had been considered authoritative as a primary guidance document on the degree of increment consumption and used regularly by professionals in the field. Moreover, the test used for a Class I SIL threshold analysis was the same test used in a Class II analysis.

Based on an analysis of 40 C.F.R. §52.21(k) and the NSR Manual, the EHB found the SIL relied upon by the DEP was *de minimis* because the 24-hour SIL for SO₂ was 0.2 micrograms per cubic meter, and on an occasion when the modeling showed an increment violation at Shenandoah for 1992, the Facility's contribution was 0.02 micrograms per cubic meter which was an extremely small reading. (EHB's decision dated November 22, 2006, at 66-67.) It further found:

[DEP] argues that adopting the [Association's] non-zero approach would be impracticable, particularly as new software develops that allows modelers to measure even smaller amounts at greater distances. As [DEP] correctly

(Reproduced Record at 535a.) (Emphasis in original.)

¹⁷ The NSR Manual provided:

When a violation of any NAAQS or increment is predicted at one or more receptors in the impact area, the applicant can determine whether the net emissions increase from the proposed source will result in a significant ambient impact at that point (receptor) of each predicted violation, and at the time the violation is predicted to occur. The source will not be considered to cause or contribute to the violation if its own impact is not significant at any violating receptor at the time of each predicted violation. In such a case, the permitting agency, upon verification of the demonstration, may approve the permit. However, the agency must also take remedial action through applicable provisions of the state implementation plan to address the predicted violation(s).

points out, the [Association's] approach would depend solely on what measurement, no matter how small, is generated by a computer model and not whether a proposed source's impact has any significance to air quality. Simply stated, merely because a computer model can generate a number does not necessarily make it significant in our analysis.

The fact that the air dispersion model is capable of calculating infinitesimally small values does not mean that those values are meaningful outside the realm of pure mathematics. In fact, the Class I 24-hour [SIL] for [SO₂] is actually below the detection limit for ambient monitors used in the field. (N.T. 63, Vol. 1) The models have predicted something that cannot be verified or even detected reliably. We agree with [DEP] that there has to be some common sense threshold to make mathematical modeling methods realistic and meaningful.

(EHB's decision, dated November 22, 2006, at 67.) We agree with the EHB that Congress did not intend to prohibit any and all economic growth based on infinitesimally small values calculated using highly developed and developing software. Because the DEP's use of SIL thresholds in Class I areas balanced Congress' intent to protect air quality and promote economic growth in areas meeting the NAAQS, and there was substantial evidence that SIL thresholds were generally accepted in the field, the EHB did not err in accepting the DEP's interpretation of "contribute" in 40 C.F.R. §52.21(k), which followed the EPA's interpretation in the NSR Manual. The Association further argues that the DEP was in violation of The Commonwealth Documents Law (CDL)¹⁸ because it imposed a "binding norm" in the form of a new regulation by interpreting the term "contribute" without the rulemaking process in contravention of state and federal laws, thereby avoiding the notice and comment process. Section 102(12) of the CDL, 45 P.S. §1102(12), provides that a "regulation" is "any rule or regulation, or order in the nature of a rule or regulation, promulgated by an agency under statutory authority in the administration of any statute administered by or relating to the agency...." The process for issuing regulations provides an important safeguard for potentially affected parties against the unwise and improper exercise of discretionary administrative power. *Woods Services, Inc. v. Department of Public Welfare*, 803 A.2d 260 (Pa Cmwlth. 2002). On the other hand, a "statement need not be issued in accord with the CDL. *Id.* Where the agency applies the policy in a particular situation, it must be prepared to support the policy just as if the policy statement had never been issued. *Id.*

The plain meaning of "contribute" is "to play a significant part in bringing about an end or result." *Webster's Ninth New Collegiate Dictionary* 285 (1989). Here, the DEP interpreted 40 C.F.R. §52.21(k) to mean that a new source would only consume increment if its modeled contribution at a specific time and point was greater than a *de minimis* threshold. This interpretation requiring greater than a *de minimis* threshold tracked the regulation's requirement that emission

¹⁸ Act of July 31, 1968, P.L. 769, as amended, 45 P.S. §1102.

increases from the proposed source not play a *significant* part in air pollution. Because the DEP's interpretation of "contribution" was a statement of policy and not an attempt to promulgate a new regulation without rulemaking, the EHB did not err in allowing the DEP to use a SIL threshold in Class I areas.

III.

The Association contends that the EHB erred in determining that the DEP was not required to include all Class I areas impacted by the Facility in the notice of Plan Approval because the DEP had to provide general notice of *any* increment consumed by a source, no matter how small, for all Class I areas analyzed by an applicant; otherwise, the public would be deprived of its statutory right to participate in the permitting process. It also argues that although the initial notice of the Plan Approval omitted information on the degree of increment consumption attributable to the Facility for Class I areas, the supplemental public notice did not cure that defect by including the degree of increment consumption for James River Face, one of the four impacted Class I areas.¹⁹

A.

As to whether the supplemental notice was substantively complete, the air quality regulations require that the DEP "prepare a notice of action to be taken on applications for plan approvals" for sources subject to NSR or PSD review. 25 Pa.

¹⁹ The Association also argues that the DEP had no justification for applying a Class I area SIL threshold to the increment consumption that triggered the public notice and comment procedures. As explained above, the DEP's use of a SIL threshold was a statement of policy and not the promulgation of a regulation under CDL requiring public notice and comment.

Code §127.44(a). The notice must be sent to the applicant, the EPA, any state within 50 miles of the facility, and any contiguous state whose air quality may be affected. The notice must also be published in a newspaper in the county where the facility is to be located and in the *Pennsylvania Bulletin*. 25 Pa. Code §§127.44(b) and (d). For sources subject to review under PSD requirements, the notice must include the "degree of increment consumption expected to result from the operation of the facility." 25 Pa. Code §127.45(4). The term "degree of increment consumption" is not defined in state or federal regulations, and it is the DEP's interpretation of that term the Association challenges.²⁰ An "increment" is a maximum allowable net increase in concentration of a pollutant in ambient air over a defined baseline concentration.²¹ 42 U.S.C. §7473(b); 40 C.F.R. §52.21(c).

As to the meaning of degree of increment consumption, the DEP followed the NSR Manual which provided that increment was "consumed" at the time and place where the computer model calculated the highest concentration of emissions for each PSD pollutant above baseline from all sources. After determining when and where the increment was consumed, a proposed source was considered to be a contributing consuming increment if the emissions that were expected to result

²⁰ It is well-established that courts defer to an administrative agency's interpretation of its own regulations unless that interpretation is unreasonable. *Department of Environmental Protection v. North American Refractories Company*, 791 A.2d 461 (Pa. Cmwlth. 2002); *see also Sunoco*.

 $^{^{21}}$ Baseline concentration is an existing background concentration of a pollutant prior to the first PSD application in the area. 40 C.F.R. §52.21(b)(13)(i).

were above the SIL²² threshold during the period when the increment was the highest from all modeled cumulative impacts. There was no requirement in the NSR Manual that notice had to be given for *any* impact no matter how small, but rather for the degree of increment consumption for sources that were above the SIL threshold when the increment was the highest cumulatively.

In this case, the time at which cumulative impact of all sources was at its highest increment for Class I areas, the Facility's modeled SO₂ impact for Otter Creek, Dolly Sods and Shenandoah, was insignificant (below the SIL threshold), but the impact was significant (above the SIL threshold) for James River Face. Because we agree with the DEP that 25 Pa. Code §127.45(4) only required publication of Class I areas where the increment consumed was above the SIL threshold as interpreted in the NSR Manual, the EHB did not err in determining that only the impact results for James River Face had to be published.

В.

Even though James River Face was the only Class I area where the Facility had a degree of increment consumed above the SIL threshold, we must still consider whether the supplemental notice containing this information cured the defect in the initial notice which omitted this information. Administrative agencies are not

²² Mark Wayner (Wayner), an experienced air pollution control engineer and program manager of the DEP's Southwest Regional Office, testified that SIL is "the level of concentration from the source, that at that level, it's determined to be non-significant or de minimis and we have determined that to be of negligible impact." (Reproduced Record at 1669a.)

prevented or estopped from prospectively correcting its errors. *Community Country Day School v. Department of Education*, 414 A.2d 428 (Pa. Cmwlth. 1980).

After the DEP realized that its initial notice failed to include the degree of increment consumption for James River Face, it promptly corrected this defect by sending out a supplemental notice which afforded the public and the Association an opportunity for effective public participation. The record evidence established that the DEP was very responsive to comments made by the public and third parties at all stages of the permit process and would have taken any comments to its supplemental notice seriously, but no comments were submitted and, therefore, no changes were made to the Plan Approval. Moreover, the DEP actions are not final if appealed,²³ and any interested person may intervene in an appeal pending before the EHB,²⁴ which did not occur here. The Association was also provided an opportunity at the *de novo* hearing to have its objections heard. Because the DEP corrected its omission of publication of information on increment consumption for James River Face in its initial notice with a supplemental notice, the EHB did not err in determining that the

²³ Section 4(c) of the Environmental Hearing Board Act (EHB Act), Act of July 13, 1988, P.L. 530, 35 P.S. §7514(c), provides:

The department may take an action initially without regard to 2 Pa. C.S. Ch. 5 Subch. A, but no action of the department adversely affecting a person shall be final as to that person until the person has had the opportunity to appeal the action to the board under subsection (g). If a person has not perfected an appeal in accordance with the regulations of the board, the department's action shall be final as to the person.

²⁴ Section 4(e) of the EHB Act, 35 P.S. §7514(e), provides: "[a]ny interested party may intervene in any matter pending before the board."

supplemental notice cured any defect in the initial notice and provided the public and the Association an opportunity to comment on the amended Plan Approval.

IV.

The Association contends that the EHB's determination that the testimony of Paine, ENSR's technical director in the field of air pollution, regarding visibility refinements to the CALPUFF modeling met the $Frye^{25}$ test was contrary to law and not supported by substantial evidence. It argues that Wellington failed to meet its burden of establishing that Paine's methodology of air quality modeling and post modeling refinements were generally accepted by experts in that field.

In *Tucker v. Community Medical Center*, 833 A.2d 217, 223-24 (Pa. Super. 2003), the Pennsylvania Superior Court explained:

... [T]he *Frye* test sets forth an exclusionary rule of evidence that applies only when a party wishes to introduce *novel scientific evidence obtained from the conclusions of an expert scientific witness*. Under *Frye*, a party wishing to introduce such evidence must demonstrate to the trial court that the relevant scientific community has reached *general acceptance* of the principles and methodology employed by the expert witness before the trial court will allow the expert witness to testify regarding his conclusions. However, the *conclusions* reached by the expert witness from generally accepted principles and methodologies need not also be generally accepted. Thus, a court's inquiry into whether a particular scientific process is "generally accepted" is an effort to ensure that the *result* of the scientific process, *i.e.*,

²⁵ *Frye* was adopted by the Pennsylvania Supreme Court in *Commonwealth v. Topa*, 471 Pa. 223, 369 A.2d 1277 (1977).

the proffered evidence, stems from "scientific research which has been conducted in a fashion that is generally recognized as being sound, and is not the fanciful creations [sic] of a renegade researcher."

Id. at 223-24. (Citations omitted.) (Emphasis in original.)

The methodology of the CALPUFF air modeling program for Class I areas was accepted by the EPA. ENSR's initial round of modeling for the Facility followed the parameters set forth in the Federal Land Managers' Air Quality Related Values Workgroup (FLAG) Phase I Report (December 2000), and it indicated that the AQRVs in Class I areas would be adversely affected. Paine testified that ENSR then incorporated refinements to the FLAG model by replacing the f(RH) values of the FLAG guidance manual with the value updated by EPA in 2003 in an effort to account for the effect of humidity on visibility. In the next phase, ENSR further refined by accounting for sea salt, which Paine testified was a naturally occurring particle that was not taken into consideration by the FLAG guidance manual. He stated that sea salt could be expected to a small degree as far inland as the proposed Facility and not accounting for it would result in the model producing a higher percentage change in visibility. ENSR applied one final set of refinements that took into account meteorological interferences and upon completion, it was determined that there was no adverse impact on visibility in any of the Class I areas.

Because the methodology of the CALPUFF air modeling program for Class I areas was generally accepted and the Association was provided an opportunity to cross-examine Paine on the substantial evidence he provided regarding the modeling refinements, the EHB did not err in determining that Paine's testimony regarding the CALPUFF methodology and modeling refinements met the standard set forth in *Frye*.

V.

The Association next contends that the EHB erred in only admitting the FLM comment letters²⁶ for the limited purpose of showing that the letters were

The DOI [Department of Interior] again acknowledges the environmental benefits of the Greene Energy project, and we appreciate Wellington Development's efforts to purchase and retire the additional sulfur dioxide ERCs [emission reduction credits]. Therefore, with respect to Shenandoah National Park, we concur with the Forest Service's conclusion that the 30-day average control efficiency increase and the permanent retirement of the ERCs would mitigate sulfur deposition impacts to affected Class I areas. DOI has therefore decided not to appeal the PA DEP's decision to issue the Plan Approval to the Pennsylvania Environmental Hearing Board.

As we have discussed, DOI remains interested in working with Wellington Development and the Commonwealth of Pennsylvania to ensure that short-term sulfur dioxide emissions at the facility – which could affect visibility at Shenandoah National Park – are ultimately permitted to reflect maximum operational control efficiency. Accordingly, we appreciate and concur with your decision to modify the Plan Approval to require Wellington Development to give DOI a copy of the draft Operating Permit and Application, along with operating data sufficient to determine the 24-hour, 30-day rolling, and annual average sulfur dioxide emissions and control efficiencies, along with any PA DEP staff analysis – at least 30 days prior to publishing Notice of an Intent to issue an operating permit for the Green Energy facility.

(Original Record, Exhibit B-32.)

²⁶ In its brief, the Association appears to be referring to the FLM comment letter dated July 28, 2005, from the Department of Interior for the National Park Service regarding adverse impacts on visibility in Shenandoah. The letter stated:

received by the DEP and excluding the opinions expressed in those letters as hearsay,²⁷ even though the EHB was required to consider the letters. It argues that it could not call the FLM for the National Park Service to testify because the Department of Interior refused to allow them to testify as expert witnesses. By excluding the letters, the Association argues that the EHB prejudiced their ability to meet their burden on issues related to Class I areas and adverse impacts to visibility.

Where a DEP decision is appealed to the EHB, the EHB is required to conduct a hearing *de novo* to determine whether the evidence taken by the EHB can sustain the DEP's decision. *Pennsylvania Trout v. Department of Environmental Protection*, 863 A.2d 93 (Pa. Cmwlth. 2004). Hearsay evidence, properly objected to, is not competent evidence to support a finding in administrative proceedings. *Rox Coal Company v. Workers' Compensation Appeals Board (Snizaski)*, 570 Pa. 60, 807 A.2d 906 (2002). Parties have a right to cross examination under the Administrative Agency Law²⁸ and the EHB's Rules.²⁹ The rules of evidence relating to

²⁸ Section 505 of the Administrative Agency Law, 2 Pa. C.S. §505, provides:

Commonwealth agencies shall not be bound by technical rules of evidence at agency hearings, and all relevant evidence of reasonably probative value may be received. Reasonable examination and **cross-examination shall be permitted**. (Emphasis added.)

²⁹ 25 Pa. Code §1021.117(a) provides: "[**p**]arties shall have the right to an opening statement, presentation of evidence, **cross-examination**, objection, motion and argument, and closing argument." (Emphasis added.)

²⁷ Hearsay is defined as "a statement, other than one made by the declarant while testifying at the trial or hearing, offered in evidence to prove the truth of the matter asserted." Pa. R.E. 801(c). Hearsay is not admissible into evidence for the truth of the matter asserted unless the statements fall within an exception to the rules. Pa. R.E. 802.

administrative agencies in admitting or excluding evidence are liberal, and exclusion alone may not constitute procedural defect. *Leeward Construction, Inc. v. Department of Environmental Protection*, 821 A.2d 145 (Pa. Cmwlth. 2003).

Opinion evidence like that contained in the FLM comment letters regarding adverse impacts on visibility was not admissible unless the FLM who prepared the letter was subject to cross-examination regarding the accuracy, reliability and veracity of his or her opinion.³⁰ Although the Department of Interior exercised its right under 43 C.F.R. §2.81³¹ to prohibit the FLM for the National Park Service from testifying, nothing precluded the Association from obtaining its own expert witnesses. Moreover, even though the letters were required during the DEP's review of the application, the EHB had to hear the case anew and properly sustained objections to the Association's attempt to admit the letters into evidence because they

³¹ 43 C.F.R. §2.81 provides:

³⁰ See Commonwealth v. Seville, 405 A.2d 1262 (Pa. Super. 1979).

⁽a) Except for proceedings covered by §2.80(c) and (d), it is the Department's general policy not to allow its employees to testify or to produce Department records either upon request or by subpoena. However, if you request in writing, the Department will consider whether to allow testimony or production of records under this subpart. The Department's policy ensures the orderly execution of its mission and programs while not impeding any proceeding inappropriately.

⁽b) No Department employee may testify or produce records in any proceeding to which this subpart applies unless authorized by the Department under §§2.80 through 2.90. *United States ex rel. Touhy v. Ragen, 340 U.S. 462 (1951).*

constituted hearsay inadmissible under any exception. Because the EHB was required to hear the case anew and properly found the FLM comment letters containing opinion to be hearsay as the authors were not subject to crossexamination, the EHB did not err in admitting the letters for the limited purpose of showing that they were received by the DEP.

VI.

The Association next contends that the EHB erred in determining that the mitigation measures contained in the Plan Approval adequately protected visibility in Shenandoah from impacts resulting solely from the Facility because the purchase of ERC to mitigate long-term impacts to aquatic resources resulting from sulfur deposition measured and assessed on a yearly basis could not effectively eliminate more transient visibility impacts measured on an hourly basis and then averaged over a 24-hour period.

Under the PSD regulations, the FLM is charged with the general affirmative responsibility to protect visibility in Class I areas in consultation with the permitting agency, in this case, the DEP.³² Even though the FLM is to consider whether the proposed source will have an adverse impact on visibility, the final

³² 40 C.F.R. §52.21(p)(2) provides:

The Federal Land Manager and the Federal official charged with direct responsibility for management of such lands have an affirmative responsibility to protect the air quality related values (including visibility) of such lands and to consider, in consultation with the Administrator, whether a proposed source or modification will have an adverse impact on such values.

decision on whether to issue a plan approval rests with the DEP.³³ The FLM promulgated a policy called FLAG which set forth the procedure it was to follow in discharging its role in PSD permitting.³⁴ Under FLAG, if the FLM expected adverse impacts to AQRVs, it would have to notify the permitting authority and the permittee of the adverse impact determination, and then it could either oppose the permit or the permittee could agree to a mitigation plan that was acceptable to the FLM.³⁵ A

³³ 40 C.F.R. §52.21(p)(4) provides:

The Federal Land Manager of any such lands may demonstrate to the Administrator that the emissions from a proposed source or modification would have an adverse impact on the air quality-related values (including visibility) of those lands, notwithstanding that the change in air quality resulting from emissions from such source or modification would not cause or contribute to concentrations which would exceed the maximum allowable increases for a Class I area. If the Administrator concurs with such demonstration, then he shall not issue the permit.

³⁴ Section C.2.e. of the FLAG provides, in pertinent part:

The FLM does not determine what permit conditions will be required or administer permit conditions; that is the responsibility of the permitting authority. However, the FLM may request permit conditions or agree to withdraw objections to permit issuance if requested conditions are included.

(Reproduced Record at 1121a.)

³⁵ Section C.2.c.7 of the FLAG provides, in pertinent part:

Regardless of increment status, the FLM may make a preliminary determination that the proposed project will cause, or contribute to, an adverse impact on AQRVs. Before officially declaring an adverse impact, the FLM will inform the proposed new source and the permitting authority that an adverse impact determination is imminent and suggest that the permit be modified. If the permit is modified to **(Footnote continued on next page...)**

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mitigation plan could include such things as reducing emissions, obtaining offsets and air quality monitoring.

In this case, Wayner, the DEP's pollution control engineer, testified that the FLM for Shenandoah refused to accept the first mitigation plan accepted by the Forest Service without providing justification. After negotiations ensued, Wayner testified that the FLM agreed to an enhanced mitigation plan retiring 411 more tons

(continued...)

satisfy the concerns of the FLM, then an adverse determination is avoided.

e. The FLM will inform the permit applicant, the permitting authority, and EPA of its final [adverse impact] determination.

f. Simultaneous with step e, the FLM will publish a final determination in the "Notice" section of the *Federal Register*, including a clear and concise statement of reasons supporting that determination, statement as to availability of supporting documentation for inspection and copying, and statement as to immediate effective date (date signed) of final determination.

g. If the FLM makes a final determination that a source will have an adverse impact, the FLM will oppose the permit. However, the permit applicant may propose to mitigate any adverse impacts (via reducing emissions, obtaining emission offsets, etc.). If the applicant adequately mitigates the adverse impacts to the satisfaction of the FLM, the FLM will withdraw his objection to the permit. If the adverse impacts are not adequately mitigated and the permitting authority nevertheless issues the permit, the FLM may appeal the permit.

(Reproduced Record at 1119a-1120a.)

of SO₂ ERC and the DEP agreed to share air quality monitoring data from the Facility to provide FLM with advance notice and documentation prior to the issuance of an operating permit.³⁶ Because there was substantial record evidence establishing that the FLM accepted the mitigation plan through good-faith on-going negotiations requiring the DEP to provide air quality monitoring data before the issuance of an operating permit, the EHB did not err in determining that the mitigation plan was sufficient to address the Association's visibility impact concerns.³⁷

... [R]egardless of whether the National Park Service lifted its determination of adverse impact, we find based on the evidence presented at the trial, that the mitigation methods incorporated into the plan approval serve to adequately address any potential impact the project may have on visibility in Shenandoah National Park and that [DEP] acted reasonably and in conformance with the law when it ultimately determined there was no adverse impact by the [Facility] on the park. The plan approval includes significantly lower sulfur dioxide emission limits than what were originally proposed, the retirement of 2,499 tons of sulfur dioxide emissions reduction credits, and addition of a nitrogen oxides limit and participation by the National Park Service in establishing final operating permit terms and conditions. We find that these measures adequately protect visibility at Shenandoah National Park.

(EHB's decision, dated November 22, 2006, at 76-77.)

³⁶ The Plan Approval authorized the construction of the Facility and after it was constructed, an operating permit application had to be obtained. 25 Pa. Code §§127.12b(a) and 127.402(a).

³⁷ The Association also argues that the EHB improperly relied on ambiguous phrasing in FLM comment letters to determine that the FLM was satisfied with the mitigation efforts for the Facility. However, after discussing one of the letters, the EHB stated:

Accordingly, the decision of the EHB is affirmed.

DAN PELLEGRINI, JUDGE

IN THE COMMONWEALTH COURT OF PENNSYLVANIA

Dennis Groce, National Parks Conservation Association, Group Against Smog and Pollution, and Phil Coleman, Petitioners	: : :
V.	: : No. 2355 C.D. 2006
Department of Environmental Protection and Wellington Development-WVDT-LLC, Respondents	: :

<u>O R D E R</u>

AND NOW, this <u>11th</u> day of <u>April</u>, 2007, the order of the Pennsylvania Environmental Hearing Board, dated November 22, 2006, is affirmed.

DAN PELLEGRINI, JUDGE