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October 6, 2008

Via hand-delivery

Ms. Erika Durr, Clerk of the Board
U.S. Environmental Protection Agency
Environmental Appeals Board
Colorado Building
1341 G Street N.W. Suite 600
Washington D.C. 20005

Re: Petition for Review for Seminole Electric Cooperative, Inc. facility.

Dear Ms. Durr:

Enclosed for filing is one original of the Petition for the above-referenced PSD Appeal Case. If you have any questions about this filing or if I can be of any further assistance please call me at 415-977-5725.

Sincerely,

Joanne Spalding

Enclosures

cc. Petition for Review

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BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

In the matter of:	PSD Appeal No. ____
In Re Seminole Electric Cooperative Inc.	
PSD Permit Number PSD-FL-375	

PETITION FOR REVIEW

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Table of Contents

PETITION FOR REVIEW AND REQUEST FOR ORAL ARGUMENT

INTRODUCTION

Pursuant to 40 C.F.R. § 124.19(a), Sierra Club petitions for review of the Prevention of Significant Deterioration ("PSD") Permit Number PSD-FL-375 ("Seminole PSD Permit") issued by the Florida Department of Environmental Protection ("FDEP") to Seminole Electric Cooperative Inc. ("Seminole") on September 5, 2008. A copy of the Seminole PSD Permit is attached as Exhibit 1. The Seminole PSD Permit authorizes construction of a new 750-megawatt pulverized coal-fired electric utility generating unit at the existing Seminole Generating Station in Palatka, Florida.

Sierra Club contends that FDEP committed numerous procedural and substantive errors in issuing the Seminole PSD Permit. Despite the serious errors that plagued the draft PSD permit, FDEP entirely ignored the detailed comments that Sierra Club submitted, as well as intervening federal case law, and issued the final permit without making any changes to the draft and without responding to a single Sierra Club comment. The Board should remand the permit and require FDEP to correct these flaws.

Sierra Club requests oral argument in this matter. Oral argument would assist the Board in its deliberations on the issues presented by the case because the issues raised are generally a source of significant public interest and are of a nature such that oral argument would materially assist in their resolution.

THRESHOLD PROCEDURAL REQUIREMENTS

Sierra Club satisfies the threshold requirements for filing a petition for review under Part 124. Sierra Club has standing to petition for review of the permit decision because it participated in the public comment period on the draft permit. 40 CFR §124.19(a). *See* comments filed on October 9, 2006, on behalf of the Sierra Club, attached as Exhibit 2. The issues raised by Sierra Club here were raised during the public comment period or are new issues resulting from the Supreme Court's decision in *Massachusetts v. Environmental Protection Agency*, 127 S.Ct. 1438 (2007), and the D.C. Circuit's decision in *New Jersey v. EPA*, 517 F.3d 574 (D.C. Cir. 2008), which were decided after the comment period closed and were therefore not reasonably ascertainable at the close of the public comment period.

FDEP issued the draft PSD permit under a federal delegation of authority but issued the final PSD permit after the Environmental Protection Agency ("EPA") approved the portion of Florida's State Implementation Plan ("SIP") covering PSD permits for electric power plants. Florida state rules for public participation, now approved in the SIP, are substantially different from the federal rules that applied under the delegation. At the time the draft permit was issued, Sierra Club fulfilled all applicable federal standing requirements for Environmental Appeals Board ("EAB") review, but the current SIP-approved state rules, if applied retroactively, could cut off review in state court. This unusual circumstance threatens to block all scrutiny of a badly flawed permit, despite the Clean Air Act PSD program's important purpose of ensuring "adequate procedural opportunities for informed public participation in the decisionmaking

process." *See* 42 U.S.C. § 7470(5). To prevent this unfortunate result, Sierra Club is filing both this petition for review and an appeal in Florida state court. *See* Ex. 3. Sierra Club will explain the unusual procedural history of this permitting decision in a Motion to Hold in Abeyance, which it will soon file with the Board.

ISSUES PRESENTED FOR REVIEW

Did FDEP clearly err by:

(1) failing to respond to Sierra Club's comments on the draft PSD permit;

(2) relying on a deeply flawed BACT analysis to establish emission limits for carbon monoxide, volatile organic compounds, particulate matter, and fluoride;

(3) not requiring a BACT emission limit for carbon dioxide ("CO_2") emissions from Seminole's new coal-fired unit;

(4) excusing compliance with BACT requirements during startup, shutdown, and malfunction ("SSM") events;

(5) failing to ensure that BACT emission limits will be enforceable;

(6) relying on inadequate preconstruction monitoring;

(7) failing to adequately analyze impacts to soils and vegetation;

(8) failing to assess the impact of the emissions limitation requirements imposed by Clean Air Act section 112(g) on the PSD analysis?

FACTUAL BACKGROUND

Seminole proposes to construct a supercritical coal-fired steam generating unit at its Seminole Generating Station in Palatka, Florida. The facility is located in an area designated as attainment, maintenance, or unclassifiable for each

pollutant subject to a national ambient air quality standard ("NAAQS"). Ex. 1 at 2. The new unit, Unit 3, would have a power output of 750 megawatts, increasing the capacity of the plant by nearly 60%. *Id.* In addition to the new boiler, the permit authorizes the construction of a spray dryer system and a mechanical draft cooling system. *Id.* The facility is a major source of hazardous air pollutants ("HAP"). *Id.* Unit 3 would emit approximately 6.5 million tons of carbon dioxide annually. *See* Ex. 4 (Letter from Natural Resources Defense Council and Southern Alliance for Clean Energy to FDEP, July 3, 2008) at 2.

FDEP issued a draft PSD permit for Unit 3 that was published on September 8, 2006. Ex. 5 (FDEP Final Determination) at 1. Sierra Club submitted timely comments on October 9, 2006, detailing numerous deficiencies in the draft permit. Ex. 2. On March 9, 2007, the Sierra Club and Seminole entered a settlement agreement in which Seminole agreed to seek reduced emissions limits and other changes to the permit and the Sierra Club agreed not to contest the final PSD permit as long as it was issued in accordance with the terms of the agreement. Ex. 6. FDEP was not a party to the settlement.

On April 2, 2007, the U.S. Supreme Court decided *Massachusetts v. EPA*, 127 S.Ct. 1438, holding that "greenhouse gases fit well within the Clean Air Act's capacious definition of 'air pollutant.'" Id. at 1462. As explained below, the Supreme Court's decision confirmed that the Seminole PSD permit must include an emissions limit for the 6.5 million tons of carbon dioxide that the new unit would emit annually. And in March, 2008, the D.C. Circuit issued the mandate for its decision in *New Jersey v. EPA*, 517 F.3d 574 (D.C. Cir. 2008), rendering the hazardous air pollution from the new Seminole unit subject to the

requirements of section 112 of the Clean Air Act. Commenters sent a letter to FDEP informing it of the implications of these decisions for the Seminole PSD permit before the agency issued the final permit. Ex. 4.

On September 5, 2008, FDEP issued a final PSD permit that is identical to the draft permit. Exs. 1 & 5. Ignoring the egregious flaws in the permit described in the Sierra Club comments, as well as the legal implications of the intervening federal court decisions, FDEP issued the final permit without change and without even responding to any of the Sierra Club's comments on the draft. *See* Ex. 5. Because the permit was not issued in accordance with the terms of the settlement between Seminole and Sierra Club, Sierra Club is free to contest it.

Sierra Club now petitions the Board for review of this permit and urges a remand so that FDEP can correct the many flaws in the draft permit and fully respond to Sierra Club's comments.

ARGUMENT

I. THE BOARD SHOULD REMAND THE PERMIT BECAUSE FDEP VIOLATED FEDERAL AND STATE LAW BY FAILING TO RESPOND TO COMMENTS

In a final determination issued along with the Seminole PSD permit, *see* Exs. 1 and 5, FDEP acknowledged that it had received Sierra Club's timely comments but offered no response whatsoever to them. This failure is a straightforward violation of both the federal rules applicable under the delegation and of Florida's SIP-approved state regulations and requires remand of the permit.

Federal law gives the public a right to comment on issuance of permits to major emitting facilities and requires a State Director to issue a response to comments when he or she issues a final permit decision. *See* 42 U.S.C. § 7475(a)(2); 40 C.F.R. § 124.17(a). In the response, the Director must "[b]riefly describe and respond to all significant comments on the draft permit . . . raised during the public comment period, or during any hearing." *Id.* The Director must also identify the provisions of the draft permit altered in the final permit decision, if any, and describe the reasons for the change. *Id.* Florida's PSD regulations are also clear on this point, providing that "[a]ny public comments received shall be . . . considered by [FDEP] in making a final determination to approve or deny the permit." Fla. Admin. Code r.. 62-210.350(2)(f).

Despite these unambiguous requirements, FDEP gave no indication that it had even considered Sierra Club's comments, much less offered a response. Instead, it put forward a non sequitur: Noting that it had received word of the settlement between Sierra Club and Seminole, FDEP explained that it was not a party to the settlement and stated that the settlement was, in any event, "outside of the [PSD] process that resolves all timely-received comments." But the status of the settlement between Seminole and Sierra Club, to which FDEP was not a party, has no bearing whatsoever upon FDEP's duty to consider and respond to Sierra Club's timely comments.[1] Tellingly, FDEP cites no authority for its failure to respond to Sierra Club's comments, a failure that is all the more perplexing

[1] Indeed, FDEP's decision to issue the final PSD permit without making the changes contemplated by the settlement effectively voided the agreement, because the Sierra Club agreed not to contest the final permit only if it was issued in accordance with the terms of the agreement. Ex. 6. Therefore, FDEP cannot justify its failure to respond to the Sierra Club's comments based on any claim that the Sierra Club had given up its right to challenge the permit in an agreement with the applicant.

given that FDEP declined to change the permit to conform to the settlement agreement. In short, the status of the settlement simply cannot justify FDEP's silence.

Both the Board and the D.C. Circuit Court of Appeals have underscored the importance of the response to comments. In *In the Matter of: Atochem North America, Inc. Calvert City, Kentucky*, 3 E.A.D. 498 (Adm'r. 1991), the Board vacated and remanded a permit granted after EPA only responded to one of the petitioner's two sets of comments. Despite EPA's averment that the second set of comments would not have altered its permit decision, the Board emphasized that one purpose behind the requirement to respond to comments is "to insure that such comments are given serious consideration during the course of the permit-writing process. *Id.* at 499. *See also In re Rockgen Energy Center*, 8 E.A.D. at 557 (citing *Atochem* in a case concerning a permit issued by a state agency because, "[a]lthough *Atochem* involved a permit issued by an EPA regional official rather than a state agency, we think the concerns expressed in *Atochem* apply in this case.")

In *In re Weber, #4-8*, 11 E.A.D. at 245, the Board held that EPA's error in responding to the petitioner's comments was "neither harmless, inconsequential, nor trivial." The Board explained that the regulations' goal is to ensure that the decision-maker has the benefit of both the comments and agency staff's response to them before making permit decision. *See id.* Despite recognizing that the required response "may not result in any change in the Region's ultimate permit decision," the Board vacated and remanded the permit because the decision-maker, lacking the response to comments, "did not base her decision on

the administrative record." *Id.* at 246. As the D.C. Circuit has asserted, "a dialogue is a two-way street: the opportunity to comment is meaningless unless the agency responds to significant points raised by the public." *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 35-36 (D.C. Cir. 1977).

By failing to respond to Sierra Club's timely comments on the Seminole PSD permit, FDEP violated 40 C.F.R. § 124.17(a) and Fla. Admin. Code r. 62-210.350(2)(f). The Board has appropriately vacated permits when agencies' responses to comments were incomplete or belated, *see* 3 E.A.D. 498; 11 E.A.D. 241, and the violation here is even more egregious because FDEP simply did not respond to Sierra Club at all. This omission rendered the agency decisionmaker unable to make an informed decision on Seminole's permit application. Because the FDEP violated both state and federal regulations and because it has not therefore demonstrated that it has made an informed decision, the Board should vacate and remand the Seminole PSD permit.

II. THE BOARD SHOULD REMAND THE PERMIT BECAUSE FDEP DID NOT COMPLY WTH APPLICABLE REQUIREMENTS IN SETTING THE CARBON MONOXIDE, VOLATILE ORGANIC COMPOUNDS, PARTICULATE MATTER, AND FLOURIDE BACT LIMITS.

A. INTRODUCTION AND LEGAL BACKGROUND

The Best Available Control Technology ("BACT") determination for carbon monoxide ("CO"), volatile organic compounds ("VOC"), fluoride ("HF"), and particulate matter ("PM") for the Seminole Generating Station, Unit 3 represent a all-too-common breakdown of the BACT determination process. The Board must grant review to help get BACT back on track.

Specifically, the Clean Air Act defines BACT, in relevant part, as:

> The term "best available control technology" means 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. In no event shall application of ``best available control technology'' result in emissions of any pollutants which will exceed the emissions allowed by any applicable standard established pursuant to section 7411 or 7412 of this title.

42 U.S.C. § 7479(3) (2008). The applicable PSD regulation, which defines BACT largely the same as the statute, provides:

> *Best available control technology* means an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under Act which would be emitted from any proposed major stationary source or major modification which the Administrator, 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 fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR parts 60 and 61. If the Administrator determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for the application of best available control technology. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means which achieve equivalent results.

40 C.F.R. 52.21(b)(12)(2008); see also 62 FL ADC 62-210.200 (40) (2008).

The Supreme Court has noted that the definition of BACT contains the strong, normative terms "maximum" and "achievable[.]" *Alaska Department of Environmental Conservation v. Environmental Protection Agency*, 540 U.S. 461, 485 (2004). The Supreme Court also held that a BACT determination must be "made on reasonable grounds properly supported on the record[.]" *Alaska*, 540 U.S. at 490. The EAB evaluates the BACT determination as it is documented in the record to see if it reflects 'considered judgment' by the Agency. *In re: Knauf Fiber Glass, GmbH*, 1999 EPA App. LEXIS 2, *27 (EAB) (*citing In re: Ash Grove Cement Co.*, RCRA Appeal Nos. 96-4 & 96-5, slip op. at 41 (EAB Nov.14, 1997).

In addition, the BACT standard is intended to require the use of "the latest technological developments [in pollution control] as a requirement in granting the permit," so as to "lead to rapid adoption of improvements in technology as new sources are built," rather than "the stagnation that occurs when everyone works against a single national standard for new sources." A&P S. Rep. No. 95-127 (Part 1 of 2), at 18 (1977). BACT is a technology forcing requirement. *See In re: Tennessee Valley Auth.*, 2000 EPA App. LEXIS 25, *78-79 ("the program Congress established was particularly aggressive in its pursuit of state-of-the-art technology at newly constructed sources"); *In re: Columbia Gulf Transmission*, 1989 EPA App. LEXIS 26, *10 ("BACT ... is principally a technology-forcing measure that is intended to foster rapid adoption of improvements in control technology"); S. Rep. No. 95-127 at 18 (BACT's forward-looking emphasis is the "most important" mechanism promoting the Clean Air Act's "philosophy of encouragement of technology development."); *See generally Alabama Power v.*

Costle, 636 F.2d 323, 372 (D.C. Cir. 1980) (noting that Prevention of Significant Deterioration Program is intended to be "technology forcing").

Finally, Congress has declared that the purpose of the PSD program, including its BACT determinations is:

> to assure that any decision to permit increased air pollution in any area to which this section applies is made only after careful evaluation of all the consequences of such a decision and after adequate procedural opportunities for informed public participation in the decisionmaking process.

42 U.S.C. § 7470(5).

Despite the plain language of the definition of BACT and the clear case law, BACT has too often devolved into a "race-to-the-bottom" approach. That is, permitting agencies look at what other BACT limits currently exist in other permits and then set BACT limits based on those permit limits. A BACT limit in another permit has little to do with the maximum reductions and technology forcing that BACT mandates. While in theory a BACT limit in another permit could reflect another agency's determination of what is BACT for another source, because BACT must be based on a reasoned, documented, case-by-case analysis, the BACT limit in another permit, without its supporting analysis, does not provide any useful information in making a BACT determination.

Not only does setting BACT limits based on other BACT limits in other permits deviate from the plain language of the definition of BACT, it also eliminates the technology forcing and progressive nature of BACT. All too often, the only way BACT limits for coal-fired power plants advance to be more protective is when a particular source is forced to accept a lower limit not

because of BACT but because of another requirement such as the ambient impacts analysis or protection of air quality related values.

In this case, as explained below, FDEP's BACT analysis for CO, VOC, fluoride, and PM was limited to a review of limits in previously issued permits. Rather than select a BACT technology through the "top-down" BACT review, the FDEP set the permit limits by reviewing recently permitted projects and selecting emission limits that reflected the middle range these recent permits. The CO, VOC, fluoride, and PM BACT limits must be remanded because they do not represent BACT limits, which are technology forcing.

B. THE TOP-DOWN PROCESS IS A LONGSTANDING, CONSISTENT, AND SUFFICIENT VEHICLE FOR DETERMINING WHICH TECHNOLOGY IS BACT.

The top-down BACT process has been used by EPA and state permitting authorities for more than 20 years. *See In re Pennsauken County, New Jersey, Resource Recovery Facility*, 2 E.A.D. 667 (Adm'r, Nov. 10, 1988) (describing the genesis of the top-down approach to BACT analysis). EPA's interpretation of the statutory definition of BACT as requiring a detailed systematic analysis of the BACT definition factors, by the permit applicant,[2] was first set out in general guidance in 1987. *Id.* (*citing In re: Honolulu Resource Recovery Facility*, PSD Appeal No. 86-08 at 7, 6 n.9 (Adm'r June 22, 1987); NSR Manual at B.2. From its inception the top-down BACT analysis has required a detailed showing that there

[2] "Under the top-down methodology, applicants must apply [BACT] unless they can demonstrate that the technology is technically or economically infeasible. The top-down approach places the burden of proof on the applicant to justify why the proposed source is unable to apply the best technology available." *In re: Spokane Regional Waste-to-Energy Applicant*, PSD Appeal No. 88-12 (EPA June 9, 1989), at 9 (internal quotation marks omitted); *see also In re: Inter-Power of New York, Inc.* PSD Appeal Nos. 92-8 and 92-9 (EAB March 16, 1994) ("Under the 'top-down' approach, permit applicants must apply the most stringent control alternative, unless the applicant can demonstrate that the alternative is not technically or economically achievable.")

are significant technical, economic, energy, or environmental factors or other costs warranting the use of something other than the most stringent available technology as the basis for BACT.

Because the BACT determination is the central feature of the Act's PSD program, a common BACT analysis framework for use by all permiting authorities is a significant feature in realizing the program's goal to prevent significant deterioration in clean air areas, while allowing economic growth. Allowing business and economic development in the form of additional air pollutant emitting facilities, while holding air emissions relatively steady or decreasing them in an area, necessarily requires the introduction of new, more effective, innovative pollution controls on the new facilities. These goals come together in the BACT definition's insistence that the permiting authority evaluate the "best available controls," considering associated energy, environmental, and economic impacts and other costs." Indeed, this analysis allows for pollution control "[t]echnology transfer from one source category to another ... for BACT purposes." *Spokane Regional Waste to Energy Facility*, PSD Appeal No. 88-12 (June 9, 1989), p. 18, n. 24. In turn, a consistent framework for BACT analysis provides certainty to the permiting authority, and certainty to the applicant about the particular BACT analysis requirements with which it must comply. EPA's 1990 NSR Manual, documenting the earlier Agency directives on the BACT analysis, and building on prior experience to establish the organizational basis for a structured a top-down BACT process, has been frequently relied on by applicants and permiting authorities alike. *In re: Prairie State Generating Co.*,

PSD Appeal No. 05-05, slip op. at 16 (Aug. 24, 2006); *In re Knauf*, 8 EAD 121 199 EAP App. LEXIS 2 *19-20 (EAB 1999).

The NSR Manual's BACT framework was not the result of a formal agency rulemaking, and as such is not legally binding,[3] so strict application of the BACT methodology it describes is not mandatory. *In re: Prairie State*, slip op. at 16 (*quoting In re Cardinal FG Co.*, PSD Appeal No. 04-04, slip op. at 12 (EAB Mar. 22, 2005)). But "'a careful and detailed analysis of the criteria identified in the regulatory definition of BACT is required, and the methodology described in the NSR Manual provides a framework that assures adequate consideration of the regulatory criteria and consistency within the PSD permitting program.'" *Id.*

The top-down BACT process, implemented as documented in the NSR Manual,[4] in fact is designed to integrate and incorporate consideration of all of the elements and factors in the BACT definition. As such, it is complementary to the PSD program's underlying goal that as new, more effective control

[3] EPA has conceded this point to the U.S. Supreme Court. *Alaska Dep't Envtl. Conservation v. EPA*, 540 U.S. 461, 475 n.7 (2004). While the NSR Manual is not accorded the same weight as a binding Agency regulation, however, it has been looked to as the most current statement of the Agency's thinking on BACT issues. *In re: Masonite Corp.*, 1994 EPA App. LEXIS 36, * 21 n. 8 (citing *In re: Inter-Power of New York, Inc.*, PSD Appeal Nos. 92-8 and 92-9, at 6 n.8 (EAB, Mar. 16, 1994); *In re: Hawaiian Commercial & Sugar Co.*, PSD Appeal No. 92-1, at (EAB, July 20, 1992)).

[4] At step 1 of the analysis, the applicant must list all of the "production processes and available methods, systems and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for the control of each ... pollutant" emitted by the proposed facility. 43 U.S.C. §7479(3); NSR Manual at B.5, B.7. At the second step, analysis of technical feasibility for each listed option is performed, including "clearly documented analyses based on physical, chemical, and engineering principles, that technical difficulties would preclude [its successful use]." NSR Manual at B. 7. Technical feasibility includes an assessment of whether a particular technology is "demonstrated," that is, installed and operated successfully elsewhere, or if not demonstrated, then whether it is "available" and "applicable" – whether it can reasonably be installed and operated on the source type under consideration.[4] At step 3 of the top-down BACT analysis, the remaining control technologies from the initial list are ranked in declining order of emissions control effectiveness and document emissions reductions, economic impacts, associated environmental and energy impact associated with the application of each. NSR Manual at B.7-B.8. At step 4, the applicant must provide "an objective evaluation of each ....impact of the control alternative." Id. at B.8.

technology choices become available, it is adopted as the basis for the BACT emissions limit for new facilities so that incrementally cleaner air can be achieved through the application of better and better "best controls." The BACT determination at each step incorporates the issues that are germane to the adoption of a new, or more innovative technique for air pollution control: its technical feasibility (at step 2), associated energy environmental, and cost impacts of adopting the new cleaner controls or production process options (at step 3), collateral impacts associated with taking a new approach (at step 4). It does so, as required by the statute, on a "case-by-case" basis, such that the determination of BACT emissions limits for a new facility truly can yield the "best" available" and "maximum emissions reductions" while satisfying the applicant's business objectives.

C. THE CO AND VOC LIMIT DOES NOT REPRESENT A PERMISSIBLE BACT LIMIT.

1. The FDEP Improperly Disregarded Thermal Oxidation as BACT Technology to Control VOC and CO Emissions.

In its permit application, Seminole claimed that there was no feasible technology to control CO and VOC. Ex. 8 at 51. FDEP, however, acknowledged that thermal oxidation was a feasible control technology for both these pollutants. Despite this finding, FDEP did not require the application of this technology to Seminole Unit 3. The Board should remand the CO and VOC limits and require consideration of thermal oxidation as BACT control technology.

Thermal oxidation is an available pollution control technology. At least one Portland cement kiln, in Midlothian, Texas, uses thermal oxidation to control CO emissions. In fact, FDEP acknowledged that thermal oxidization is feasible

because of its use at this cement kiln in Texas. Moreover, Sierra Club commented that thermal oxidation is widely used in ethanol plants, refineries, and other sources to control VOC and CO emissions. Ex. 2 at 5-6.

Thermal oxidation routinely removes 90% of the CO and 98% of the VOC from similar gas streams. Thermal oxidation is much more efficient than "combustion controls" selected as BACT and is able to achieve emission limits that are at least ten times lower than those picked for Seminole. Therefore, thermal oxidation is an available control technology that must be considered in a top-down BACT analysis. NSR Manual B.11 Ex. 7 (Technical Evaluation) at 13.

FDEP rejected thermal oxidation as a BACT technology because this technology has not been used on coal-fired power plants, so the agency concluded that thermal oxidation is technically infeasible and was not further assessed. This determination was erroneous because transferring control technologies from other sources is a well-established component of identifying the BACT. The NSR workshop manual urges that technology transfer "must be considered" in the BACT analysis. The NSR Manual notes that "[o]pportunities for technology transfer lie where a control technology has been applied at source categories other than the source under consideration." NSR Manual at B.11. Elsewhere, the NSR Manual notes:

> [t]echnology transfer must be considered in identifying control options. The fact that a control option has never been applied to process emission units similar or identical to that proposed does not mean it can be ignored in the BACT analysis if the potential for its application exists.

NSR Manual at B.16; *see also* NSR Manual at 33.

In fact, the Environmental Appeals Board has recently repeated that a "control option is presumed to be applicable if it has been used on the same or similar types of source in past." *In re Indeck-Elwood*, PSD Appeal, 2006 WL 3073109 at *7 (US EPA Sept. 27, 2006); *see also In re Knauf Fiber Glass, GmbH,* 8 E.A.D. 121, 123-24 (EAB 1999).

Since thermal oxidation is a feasible BACT control technology under step 2 of the top-down process, its control effectiveness or achievable emission limits must be ranked along with other emission limits. The EAB should remand the permit limits for VOC and CO and require FDEP to analyze this technology in its BACT analysis.

2. **The VOC and CO Emission Limits do not Reflect the Maximum Degree of Reduction and, are thus not BACT limits.**

There are generally three categories of information agencies must consider for setting BACT emission limits. The first is emission limits in other permits. As explained above, this information is of very limited value in that it is backward looking and BACT is a forward looking, technology forcing strategy, and because looking only at a limit in a permit does not disclose anything about the maximum reduction that can be achieved, considering environmental, economic and energy impacts. The second category is actual emission data from actual operating sources. *See e.g.* New Source Review Workshop Manual (NSR Manual) at B.24 (experience of other sources provides basis for determining achievable limits). The third category is an evaluation of what can be achieved at the source based on currently existing control technology. *See e.g.* NSR Manual at B.24 (Manufactures' data and engineering estimates provide

basis for determining achievable limits); Id. at B-64 (Vendor Guarantee provides support for basis for choosing emission level).

There is no evidence in the record that indicates that FDEP considered anything other than the first category of information; the agency only compared emission limits contained in permits issued in the past. FDEP did not even get this limited analysis correct because it disregarded without any analysis other permits with lower CO and VOC limits.

FDEP set the emission limit for CO at 0.13 lb/MMBtu (coal only) and 0.15 lb/MMBtu 30-day rolling average (all fuels). FDEP selected these limits based exclusively on an analysis of past permit limits. The agency examined 14 permit limits for CO and noted that emission limits ranged from 0.10 to 0.20 lb/MMBtu. Ex. 7 at 13-14. FDEP set the CO emission limit at 0.13 lb/MMBtu (coal only) "because it is in the lower range of recent BACT Determination." Ex. 7 at 14. In addition, the agency established a 0.15 lb/MMBtu 30-day average limit because a value established by CEMS is a little higher than a value established by a stack test. *Id.* FDEP set this limit even though it acknowledged that "the majority of the above Determinations are based upon CEMS." *Id.*

FDEP set the emission limit for VOC at 0.0034 lb/MMBtu. As with CO, FDEP selected these permit limits based exclusively on an analysis of past permit limits. Ex. 7 at 14-15. The agency examined 15 permit limits for VOC and noted that the emission limits ranged from 0.0024 to 0.02 lb/MMBtu. *Id.* at 15.

The agency then set the emission limit at 0.0034 lb/MMBtu because "only one of [15 surveyed] BACT Determinations is more aggressive." *Id.*[5]

Essentially what FDEP did was to select the CO and VOC limits just because they are in the middle of the range of BACT permits and disregard the lower permit limits. The plain language of the Clean Air Act and its implementing regulations do not allow the agency discretion to simply disregard these lower permit limits. The Act requires that the "emission limitation" selected as BACT be based on "the maximum degree of reduction of each pollutant" that "is achievable for such facility." 42 U.S.C. § 7479(3) (2008); 40 C.F.R. § 52.21(b)(12) (2008); 62 FL ADC 62-210.200 (40) (2008). The statutory and regulatory terms, such as "maximum" and "achievable," constrain a permitting authority's discretion. *Alaska Dep't of Envtl. Conservation v. EPA*, 540 U.S. 461, 485-89 (2004). Indeed, EPA guidance specifically states that "[i]n the absence of a showing of differences between the proposed source and previously permitted sources achieving lower emissions limits, the permit agency should conclude that the lower emissions limit is representative for that control alternative." NSR Manual at B.24; *see also Newmont Nevada Energy Investments*, PSD Appeal No. 05-04, 2005 WL 3626598 (E.A.B. 2005); *In re Prairie State Generating Co.*, PSD Appeal No. 05-05, 2006 WL 2847225 (E.A.B. 2006).

For CO, three of the surveyed permits had emission limits lower than the Seminole limits: PSC Colorado (0.13 lb/MMBtu 8-hr average); Longview, WV (0.11 lb/MMBtu 3-hour average); and Thoroughbred, KY (0.10 lb/MMBtu 30-day

[5] This statement was incorrect. Two of the surveyed permits had VOC limits lower than Seminole 3's VOC limit. *See* Ex. 7 at 14.15.

rolling average). *Id.* Moreover, all three of these limits are confirmed by CEMS testing. For VOC, two of the surveyed permits had a lower VOC emission rate: Santee Cooper, S.C. (0.0024 lb/MMBtu); and Utah Intermountain (0.0027 lb/MMBtu). In addition, Sierra Club provided FDEP with evidence that 3 coal-fired pulverized coal units were actually achieving emissions lower than Seminole's VOC limit including: Trimble, KY (0.0032 lb/MMBtu), Bull Mountain, MT (0.0030 lb/MMBtu) and Springerville, AZ (0.0033 lb/MMBtu). *See* Ex. 7 at 7. Neither Seminole nor FDEP showed a difference between Seminole 3 and these previously permitted sources. Therefore, the FDEP should have concluded that the lower emission rates set in the permits for PSC Colorado, Longview, Santee Cooper, Utah Intermountain, Trimble, Bull Mountain, and Springerville are representative of emission rates achievable at Seminole 3. In light of this clearly erroneous and unreasoned CO and VOC emission limits, the EAB should remand these emission limitations back to the agency and require it to consider these lower emission rates already being achieved.

The fact that neither FDEP nor Seminole discussed why Seminole 3 could or could not achieve these lower permit limits is especially egregious given that Seminole 3 will use a supercritical boiler. Application at 1. A supercritical boiler is more efficient than a subcritical boiler or standard pulverized coal boiler, and thus is able to achieve lower emissions, including lower CO and VOC. Most of the permits surveyed by FDEP are plants that utilize less efficient subcritical boiler technology.[6] Thus, Unit 3 should be able to meet the lowest reported CO

[6] Seminole admits that the "boiler will be designed and operated for high-combustion efficiency, which will inherently minimize the production of CO." Ex. 8 (Application) at 51.

and VOC limits and likely could meet an even lower CO and VOC limits than previously permitted and relied on here. The technology forcing nature of BACT requires that FDEP lower the VOC and CO BACT limits to address the higher efficiency and thus lower emissions that can be achieved with a supercritical boiler. FDEP's decision is also contrary to the definition of BACT requiring that the lowest emission limit be selected unless adverse energy, environmental, and economic impacts are documented. NSR Manual at B.6.

The agency gratuitously claims that the CO and VOC emission limits are BACT. FDEP provides absolutely no evidence to support this bald assertion, and such assertions without any factual support at all cannot stand. This is especially true when the assertion is directly contradicted by evidence in the record such as the evidence that the PSC Colorado, Longview, Santee Cooper, Utah Intermountain, Trimble, Bull Mountain, and Springerville power plants all have permit limits lower than Seminole's.

In addition, FDEP did not respond to Petitioner's comments regarding CO and VOC emissions. As discussed in detail, above, FDEP has an obligation to respond to Sierra Club's comments. The agency's refusal to address these issues is a clear violation of the Clean Air Act. *See In the Matter of: Atochem North America, Inc. Calvert City, Kentucky, 3 E.A.D. 498 (Adm'r. 1991), In re Weber, #4-8*, 11 E.A.D. at 245; *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 35-36 (D.C. Cir.), cert. denied, 434 U.S. 829 (1977). The EAB should remand the CO and VOC emission limits back to the FDEP with instructions to respond to Sierra Club's comments. *In re Weber, #4-8*, 11 E.A.D. at 245.

The agency states that it "review[ed] the BACT/RACT/LAER Clearinghouse for Pulverized Coal boilers" to determine what was the appropriate limit. Painfully absent is an evaluation of what plants are actually achieving. Coal fired power plants often have actual emission rates that are significantly lower than their permit limits. The definition of BACT is only concerned with what is achievable. *See* 42 U.S.C. § 7479(3); 40 C.F.R. 52.21(b)(12). To determine what is achievable the agency should have examined emission data from other facilities. In addition, there is no evidence in the record that FDEP analyzed applications for other permits, had discussions with state or federal permitting staff, reviewed trade journals or information from industry conferences, or reviewed vendor guarantees about what is achievable. NSR Manual at B.11 (Other information sources must be considered to assure that the lowest achievable emission limit is specified as BACT, including control technology vendors, technical literature, and foreign experience). Further, 62 FL ADC 62-210.200 (40)(a) (2008) expressly notes that the BACT determination shall be based on "[a]ll scientific, engineering, and technical material and other information available to the Department." A much wider range of information is available to FDEP than just recently permitted projects and the agency should have reviewed this information to determine what is BACT.

The key point is not the actual emission numbers but that the way those permit limits were selected was arbitrary. First, the agency arbitrarily selected the CO and VOC limits because "it is in the lower range of recent BACT Determination" and "only one of [15 surveyed] BACT Determinations is more aggressive." Ex. 7 at 14-15. This is the definition of an arbitrary determination.

Second, the agency's analysis ignores an important aspect of the issue; that is, what actual plants are achieving and what is an achievable emission limit. Finally, the agency did not respond to Sierra Club's comments on these issues, which represents a clear violation of the Clean Air Act.

D. THE FLUORIDE LIMIT DOES NOT REPRESENT A PERMISSIBLE BACT LIMIT

As with CO and VOC, there is no evidence in the record that indicates that FDEP considered anything other than the emission limits contained in permits issued in the past when establishing a BACT limit for flouride. Moreover, FDEP did not even get this narrow analysis correct because it arbitrarily ignored past permits that had lower emission limits for fluorides.

FDEP set the emission limit for fluorides (HF) at .00023 lb/MMBtu (1.72 lb/hr equivalent. Ex. 1 at 8. As with CO and VOC, the FDEP selected these permit limits based exclusively on an analysis of past permit limits. Ex. 7 at 15. The agency examined ten permit limits for fluoride and noted that the emission limits ranged from 0.00016 to 0.0009 lb/MMBtu. *Id.* The agency then set the emission limit at .00023 lb/MMBtu because "in the lower quartile of recent BACT Determinations." *Id.*

FDEP's decision is arbitrary and capricious because, as discussed *supra,* the BACT analysis must involve more than a review of past permitted levels. To determine what is achievable FDEP should have examined emission data from other facilities. In addition, there is no evidence in the administrative record that the agency analyzed applications for other permits, had discussions with state or federal permitting staff, reviewed trade journals or information from industry conferences, reviewed vendor guarantees about what is achievable, or reviewed

foreign experience with control technology. NSR Manual at B.11 (Other information sources must be considered to assure that the lowest achievable emission limit is specified as BACT, including control technology vendors, technical literature, and foreign experience); 62 FL ADC 62-210.200(40)(a) (2008) (BACT determination shall be based on "[a]ll scientific, engineering, and technical material and other information available to the Department.")

In addition, the decision is arbitrary and capricious because there was evidence before the agency that a number of facilities had lower emission limits. FDEP set the fluoride limit because "it was in the lower quartile of recent BACT Determinations." Ex. 7 at 15. This is not how a BACT limit is to be set. A BACT limit is meant to reflect the maximum degree of emission reduction achievable. The agency did not have the discretion to simply disregard and not adopt the best-performing fluoride emission rate, i.e. that emission limit set for Thoroughbred Generating Station in Kentucky with its fluoride emission rate of 0.00016 lb/MMBtu. *See Newmont Nevada Energy Investments*, PSD Appeal No. 05-04, 2005 WL 3626598 (E.A.B. 2005); *In re Prairie State Generating Co.*, PSD Appeal No. 05-05, 2006 WL 2847225 (E.A.B. 2006). This approach is problematic because the agency rejects this more stringent fluoride limit without any discussion as to whether Seminole 3 could or could not achieve this lower fluoride limit. *See* NSR Manual at B.24 ("In the absence of a showing of differences between the proposed source and previously permitted sources achieving lower emissions limits, the permit agency should conclude that the lower emissions limit is representative for that control alternative.")

Moreover, Sierra Club raised this lower emission rate in its comments, Ex. 2 at 8, and FDEP did not respond to these comments. *See* Final Determination. The agency, however, was required to address these comments before issuing the final PSD permit for Seminole 3. *See In the Matter of: Atochem North America, Inc. Calvert City, Kentucky, 3 E.A.D. 498 (Adm'r. 1991), In re Weber, #4-8*, 11 E.A.D. at 245; *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 35-36 (D.C. Cir.), cert. denied, 434 U.S. 829 (1977).

Finally, given the vicinity of the Okefenokee, Chassahowitzka, and Wolf Island Wildlife Refuge, FDEP's refusal to determine what is the lowest achievable emission limit is particularly arbitrary because, as the U.S. Environmental Protection Agency has explained, "exposure of sensitive plant species to 0.5 micrograms per cubic meter of fluorides ... for 30 days has resulted in significant foliar necrosis." NSR Manual at D-4.

E. THE PARTICULATE MATTER LIMIT DOES NOT REPRESENT A PERMISSIBLE BACT LIMIT.

1. The Emission Limit for Filterable PM Does Not Represent BACT.

FDEP set the emission limit for particulate matter at 0.013 lb/MMBtu. Ex. 1 at 8. Once again, FDEP selected this limit based exclusively on an analysis of past permit limits. Ex. 7 at 12. The agency examined fifteen permit limits for PM and noted that the emission limits ranged from 0.012 to 0.02 lb/MMBtu. *Id.* The agency then set the emission limit at .00023 lb/MMBtu because "at the low end of recent BACT Determinations." *Id.*

Two permits surveyed by the FDEP had PM emission limits lower than the Seminole 3 emission limit. PSC Colorado and Utah Intermountain PSC had

emission limits for PM10 filterable of PM10: 0.012 lb/MMBtu. In addition, Petitioners brought four additional permits to FDEP's attention: Reliant Energy Seward, Pennsylvania with a PM emission rate 0.010 lbs/mmBTU; JEA Northside, FL with a PM emission rate 0.011 lbs/mmBTU; Northampton, Pennsylvania with a PM10 emission rate of 0.0088 lb/MMBtu; and Baldwin facility with a PM emission rate of 0.006 lb/MMBtu. Ex. 2 at 9-10,

The Clean Air Act requires that the "emission limitation" selected as BACT be based on "the maximum degree of reduction of each pollutant" that "is achievable for such facility." 42 U.S.C. § 7479(3) (2008); 40 C.F.R. § 52.21(b)(12) (2008); 62 FL ADC 62-210.200 (40) (2008). The statutory and regulatory terms, such as "maximum" and "achievable," constrain a permitting authority's discretion. *Alaska Dep't of Envtl. Conservation v. EPA*, 540 U.S. 461, 485-89 (2004). Indeed, EPA guidance specifically states that "[i]n the absence of a showing of differences between the proposed source and previously permitted sources achieving lower emissions limits, the permit agency should conclude that the lower emissions limit is representative for that control alternative." NSR Manual at B.24; *see also Newmont Nevada Energy Investments*, PSD Appeal No. 05-04, 2005 WL 3626598 (E.A.B. 2005); *In re Prairie State Generating Co.*, PSD Appeal No. 05-05, 2006 WL 2847225 (E.A.B. 2006).

Six permits identified by FDEP and Sierra Club had lower permitted PM emission rates – PSC Colorado, Utah Intermountain, Northampton, Baldwin, Reliant Energy, and JEA Northside. Neither Seminole nor FDEP showed a difference between Seminole 3 and these previously permitted sources. Therefore, FDEP should have concluded that the lower emission rates set in the

permits for these facilities are representative of emission rates achievable at Seminole 3. In light of this clearly erroneous and unreasoned PM emission limitation, the EAB should remand the PM emission limitation back to the agency and require it to consider these lower emission rates already being achieved.

In addition, FDEP never responded to Sierra Club's comment regarding the lower permitted limits at PSC Colorado, Utah Intermountain, Northampton, Baldwin, Reliant Energy, and JEA Northside. *See* Ex. 5 at 2-3. As discussed in detail *supra*, the agency was required to address these comments before issuing the final PSD permit for Seminole 3. *See In the Matter of: Atochem North America, Inc. Calvert City, Kentucky, 3 E.A.D. 498 (Adm'r. 1991), In re Weber, #4-8*, 11 E.A.D. at 245; *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 35-36 (D.C. Cir.), cert. denied, 434 U.S. 829 (1977).

Moreover, a BACT emission limit is not set by simply reviewing previously issued permits. The agency must also examine actual emission data from actual operating sources. *See e.g.* New Source Review Workshop Manual (NSR Manual) at B.24 (experience of other sources provides basis for determining achievable limits). Sierra Club informed FDEP that the actual emission data from the Northampton facility demonstrated that it was achieving much lower PM emissions than required under its permits. Petitioners noted that the Northampton facility in Pennsylvania, which has a PM emission limit of 0.0088 lb/MMBtu, was actually achieving emission rates of 0.0045 lb/MMBtu. Ex. 2 at 9. This was demonstrated through compliance testing in February 2001. *Id.* In addition, Petitioners noted that it was because of Northampton actual emissions

data that EPA established a PM emission limit for the Baldwin facility of 0.006 lb/MMBtu. Id. at 9-10.

Finally, the agency must evaluate what can be achieved at the source based on currently existing control technology. *See e.g.* NSR Manual at B.24 (Manufactures' data and engineering estimates provide basis for determining achievable limits); *Id.* at B.64 (Vendor Guarantee provides support for basis for choosing emission level). FDEP and Seminole discarded an available control technology – a baghouse or fabric filter technology – without going through the appropriate top down BACT analysis.

Utilizing a baghouse or fabric filter technology would significantly reduce PM emissions from Unit 3. Seminole, however, discarded this technology as a viable option because Unit 3 will burn high sulfur coal and there is an unknown long-term reliability of fabric filters when used with high-sulfur coal. Ex. 8 at 50. Seminole also claimed that there is only one plant burning high sulfur coal that utilizes baghouses.

Seminole's assessment does not meet the rigors of an appropriate top down BACT analysis for four reasons. First, Unit 3 could burn low-sulfur coal. BACT determinations must consider better coal quality as a way to reduce emissions. EPA recognizes that Congress explicitly amended the definition of BACT to ensure clean fuels are considered:

> The phrase 'clean fuels' was added to the definition of BACT in the 1990 Clean Air Act amendments. EPA described the amendment to add 'clean fuels' to the definition of BACT at the time the Act passed, 'as ... codifying its present practice, which holds that clean fuels are an available means of reducing emissions to be considered along with other approaches to identifying BACT level controls.' EPA policy with regard to BACT has for a long time

> required that the permit writer examine the inherent cleanliness of the fuel.

Inter-Power of New York, PSD Appeal Nos. 92-8 and 92-9, 5 E.A.D. 130, 134 (E.A.B. 1994) (emphasis added, internal citations omitted). EPA requires permitting agencies to consider clean fuels in every BACT analysis, as a recognized method of pollution prevention. *Knauf*, 8 E.A.D. at 136; *In re: Old Dominion Electric Cooperative*, 3 E.A.D. 779, 794, n.39 (E.A.B. 1992) ("BACT analysis should include consideration of cleaner forms of the fuel proposed by the source."); *Hibbing Taconite*, 2 E.A.D. 838, 842-843 (E.A.B. 1989) (remanding a permit because the permitting agency failed to consider burning natural gas as a viable pollution control strategy).

Therefore, Seminole is required to consider using cleaner fuels in step one of the top-down BACT process and either establish a PM BACT limit based on the cleanest coal available, or justify its basis for not doing so. Moreover, utilizing lower sulfur coal has multi-pollutant benefits, included but not limited to, lower sulfur oxides ("Sox") emissions, lower sulfuric acid mist ("SAM") emissions, lower nitrogen oxides ("NOx") emissions, and of course, enhanced attractiveness of a fabric filter (due to improved ash properties and lower SO_3 concentrations).

Second, Seminole could implement measures to reduce SO_3 emissions, the root problem for baghouses. These include blending an alkali with the coal, alkali injection into the boiler, use of a low conversion SCR catalyst with an SO_2 to SO_3 conversion rate of 0.5% or less, or alkali injection upstream of the baghouse.

Third, Unit 3 could be designed to minimize baghouse fouling by operating the air preheater at temperatures above the acid condensation point and using bags that have been demonstrated to have low failure rates in high sulfur applications, e.g., membrane bags instead of acid-resistant fiberglass.[7]

Fourth, a number of recently permitted high sulfur coal projects will use baghouses including—Longview, WV, Trimble, KY, Oak Creek, WI, and Dallman Unit 4, IL. The latter three projects are under construction with baghouses. This demonstrates that the utility industry and its vendors consider baghouses in high sulfur applications to be commercially available and feasible, requiring that baghouses be evaluated as BACT for Seminole, rather than summarily rejected.

Therefore, Seminole and FDEP must consider the additional and significant PM reductions associated with using a baghouse. The Board should remand the PM permit limits back to FDEP with instructions to consider this control technology in a proper top-down BACT analysis.

2. The permit must set a BACT limit for condensable PM.

The Seminole permit has no limit for condensable PM. *See* Seminole Permit at 8. FDEP did not set a condensable PM ("CPM") limit despite the fact that EPA has taken the position, for at least fourteen years, that condensable PM is part of a source's PM emissions and must be considered in a BACT analysis. In a March 31, 1994, letter to the Iowa Department of Natural Resources, EPA responds to a series of questions. The first two are relevant here:

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[7] *See*, for example, McIlvaine FGD and DeNOx Newsletter, SCR Affected Fabric Filter Operation at Wateree, No. 340, August 2006 and J.A. Robinson, Jr., Experiences from Three Years of SCR Operation, 2006 Environmental Control Conference, May 16-18, 2006.

Iowa DNR: Does the Environmental Protection Agency (EPA) definition for PM-10 include condensable particulate matter (CPM)?

US EPA: Yes, the definition of PM-10 includes CPM.

Iowa DNR: Are the States required to compute PM-10 as the sum of in stack and condensable PM-10?

US EPA: Since CPM is considered PM-10 and, when emitted, can contribute to ambient PM-10 levels, applicants for PSD permits must address CPM if the proposed emission unit is a potential CPM emitter.

Letter from Thompson Pace, OAQPS, EPA to Sean Fitzsimmons, Iowa DNR (Mar. 31, 1994).[8] In a March 30, 2004 memo, Air and Radiation Division Director, Stephen Rothblatt, requested EPA Headquarters to issue a nationwide memo to remind states that they must include a condensable PM BACT limits in coal plant permits. EPA Region 5 has submitted comments on the draft Peabody permit informing IEPA it must include a condensable PM limit. The Wisconsin DNR has proposed a permit for Weston 4 that includes a condensable PM limit.

On September 27, 2006, the Environmental Appeals Board issued a decision in *In re: Indeck-Elwood*, LLC, PSD Appeal No. 03-04, 2006 WL 3073109 (E.A.B. 2006). In this decision the Board remanded the PSD permit issued by the Illinois EPA to "reconsider whether a PM limitation, including a limitation for condensable particulate matter is appropriate, and if so, to modify the permit accordingly." The Board noted that the U.S. "EPA has previously expressed the position that it is important to account for CPM 'where condensibles constitute a

[8] *See also,* 56 Fed. Reg. 65,433 (Dec. 17, 1991) ("Since CPM emissions form very fine particles in the PM10 size range and are considered PM10 emissions ...."); 55 Fed. Reg. 14,246 (Apr. 17, 1990) ("However, the EPA recognizes that condensable emissions are also PM10, and that emissions that contribute to ambient PM10 ... concentrations are the sum of in-stack PM10, and condensable emissions.")

significant fraction of the total PM10 because otherwise, the PM10 impact will be underestimated.'" *AES Puerto Rico L.P.*, 8 E.A.D. 324, 348 (EAB 1999) (citing Letter from Thompson G. Pace, U.S. EPA, to Sean Fitzsimmons, Iowa Department of Natural Resources (Mar. 31, 1994)), aff'd sub nom. *Sur Contra La Contaminación v. EPA*, 202 F.3d 443 (1st Cir. 2000). In addition, the Board noted that the Illinois had to consider regulating CPM because the Illinois EPA had recently issued a permit to Prairie State that set two limits for particulate matter, one stated as filterable PM and another stated as filterable and condensable PM. *In re Prairie State Generating Co.,* PSD Appeal No. 05-05, 2006 WL 2847225 (E.A.B. 2006).

If CPM can be "effectively controlled" FDEP must establish a limit for this pollutant. NSR Manual B.56. ("To complete the BACT process, the reviewing agency must establish an enforceable emission limit for each subject emission unit at the source and for each pollutant subject to review that is emitted from the source.") (emphasis added). The only exception to establishing an emission limit is if "technological or economic limitations in the application of a measurement methodology to a particular emission unit would make an emission limit infeasible." *Id.* EPA has established a method for CPM measurement, and consequently FDEP must establish a CPM limit.

Sierra Club and EPA both informed the FDEP that other similar facilities had CPM limits. In fact, five of the fifteen permits surveyed by FDEP had CPM limits. These include PSC Colorado, Montana Dakota Utilities, West Virginia Longview, Iowa MidAmerican, and Wisconsin Public Service. Ex. 7 at 12. The agency did not have the discretion to simply disregard and not adopt of the best-

performing CPM emission rate, i.e. that emission limit set for Wisconsin Public Service with its condensable emission rate of 0.018 lb/MMBtu. *See Newmont Nevada Energy Investments*, PSD Appeal No. 05-04, 2005 WL 3626598 (E.A.B. 2005); *In re Prairie State Generating Co.*, PSD Appeal No. 05-05, 2006 WL 2847225 (E.A.B. 2006). This is problematic because FDEP rejected this more stringent CPM limit without any discussion as to whether Unit 3 could or could not achieve this limit. *See* NSR Manual at B.24 ("In the absence of a showing of differences between the proposed source and previously permitted sources achieving lower emissions limits, the permit agency should conclude that the lower emissions limit is representative for that control alternative.") The existence of a similar facility with a lower emissions limit creates an obligation for Seminole and FDEP to consider and document whether that same emission level can be achieved at Unit 3. Other permits for similar facilities have regulated CPM and Seminole's permit must include no less. The Board should remand this particulate matter emission limit and require FDEP to consider a CPM limit.

Moreover, Sierra Club and EPA raised this issue in its comments, Ex. 2 at 11-12, and FDEP did not respond to these comments. *See* Final Determination. The agency states that "if testing demonstrates that condensables can be measured accurately, the Department may address this issue in the future." *Id.* at 3. This statement does not address the comments raised by the Sierra Club and skirts the comments raised by the EPA. The agency was required to specifically address these comments before issuing the final PSD permit for Unit 3. *See In the Matter of: Atochem North America, Inc. Calvert City, Kentucky, 3 E.A.D. 498*

(Adm'r. 1991), In re Weber, #4-8, 11 E.A.D. at 245; *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 35-36

III. THE SEMINOLE PSD PERMIT SHOULD BE REMANDED BECAUSE IT LACKS A CO_2 BACT EMISSION LIMIT.

FDEP issued the Seminole PSD Permit authorizing construction of a new coal-fired electric utility generating unit that would emit 6.5 million tons of carbon dioxide annually without including an emission limit for CO_2. Sierra Club's comments on the draft permit noted that it was deficient for failing to consider CO_2 emissions in the BACT analysis. Ex. 2 at 56. Sierra Club also commented that a favorable decision in the *Massachusetts v. EPA* case "would likely require the establishment of CO_2 emission limits for the Seminole Plant." Ex. 2 at 54-55. FDEP ignored these comments as well as the intervening Supreme Court decision in *Massachusetts v. Envtl. Protection Agency*, 127 S.Ct. 1438 (2007), and issued the permit without including a BACT limit for CO_2.

The Clean Air Act prohibits the construction of a new major emitting facility in an attainment area except in accordance with a PSD construction permit. 42 U.S.C. § 7475(a); 40 C.F.R. §52.21(a)(2)(iii). Section 165 of the Act requires that a PSD permit include a BACT emission limit "for each pollutant subject to regulation under this chapter emitted from, or which results from" the facility. 42 U.S.C. § 7475(a)(4); *see also* 42 U.S.C. § 7479(3). EPA repeated that language in its implementing regulations: BACT is required for "any pollutant that otherwise is subject to regulation under the Act." 40 C.F.R. § 52.21(b)(50)(iv). The D.C. Circuit relied on the broad language of the statute to conclude that BACT applies "immediately to each type of pollutant regulated for any purpose under any

provision of the Act." *Alabama Power v. Costle*, 636 F.2d 323, 403 (D.C. Cir. 1979). Moreover, the Supreme Court has instructed EPA to interpret broadly worded provisions of the Clean Air Act in a manner that gives effect to the congressional intent to promote regulatory flexibility that can address changing circumstances and scientific developments. *Massachusetts*, 127 S.Ct. at 1462.

The Seminole PSD Permit must include a BACT emission limit for carbon dioxide because it is a pollutant subject to regulation under the Act emitted from the facility. Carbon dioxide has been *regulated* under the Clean Air Act since 1993, when EPA adopted regulations implementing Section 821 that require monitoring, recordkeeping and reporting of CO_2 emissions by certain covered sources. *See* 42 U.S.C. § 7651k note; Pub. L. 101-549; 104 Stat. 2699; 40 C.F.R. § 75.1 *et seq.* On April 2, 2007, the Supreme Court held that carbon dioxide and other greenhouse gases are "pollutants" under the Clean Air Act. *Massachusetts v. EPA*, 127 S.Ct. at 1460. Now having been definitively ruled a *pollutant*, CO_2 is accordingly a *regulated pollutant* under the Act, and FDEP is required to impose a CO_2 BACT emission limit in the Seminole PSD permit.

A. Carbon Dioxide is a "Pollutant Subject to Regulation Under the Act" Because It Is Regulated Under Section 821.

Carbon dioxide is regulated under Section 821(a) of the Clean Air Act Amendments of 1990, which provides:

> Monitoring. – The Administrator of the Environmental Protection Agency ***shall promulgate regulations*** within 18 months after the enactment of the Clean Air Act Amendments of 1990 ***to require that all affected sources subject to Title V of the Clean Air Act shall also monitor carbon dioxide emissions*** according to the same timetable as in Sections 511(b) and (c). ***The regulations shall require that such data shall be reported to the Administrator.*** The provisions of Section

> 511(e) of Title V of the Clean Air Act shall apply for purposes of this Section in the same manner and to the same extent as such provision applies to the monitoring and data referred to in Section 511.[9]

42 U.S.C. § 7651k note; Pub.L. 101-549; 104 Stat. 2699 (emphasis added). EPA has consistently interpreted the regulations required by Section 821 of the Act to constitute regulation under the Clean Air Act. In 1993, EPA promulgated the regulations mandated by Section 821. Those regulations require monitoring and reporting of CO_2 emissions and are enforceable pursuant to Clean Air Act sections 113 and 304, 42 U.S.C. §§ 7413 and 7604. They require CO_2 emissions monitoring (40 C.F.R. §§ 75.1(b), 75.10(a)(3)); preparing and maintaining monitoring plans (40 C.F.R. § 75.33); maintaining records (40 C.F.R. § 75.57); and reporting such information to EPA (40 C.F.R. §§ 75.60 – 64). The regulations prohibit operation in violation of these requirements and provide that a violation of any Part 75 requirement is a violation of the Act. 40 C.F.R. § 75.5.[10]

The statutory language is clear: In Section 821 Congress ordered EPA "to promulgate regulations" requiring that hundreds of facilities covered by Title IV monitor and report their CO_2 emissions, and in Section 165, Congress required a BACT limit for "any pollutant subject to regulation" under the Act. The combined effect of these two statutory mandates is that BACT limits are applicable to CO_2 pursuant to Section 165.

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[9] According to the Reporter's notes, these references to Title V are meant to refer to Title IV, and the references to Section 511 are meant to refer to Section 412.

[10] Because violations of Section 821 are subject to the enforcement provisions of the Act, CO_2 is regulated under both the enforcement provisions of the Act and Section 821.

B. Carbon Dioxide is Subject to Regulation Under the Act Because It is Regulated In New Source Performance Standards Issued Under the Act.

In addition to section 821 of the Act and its implementing regulations, greenhouse gases such as carbon dioxide and methane are also regulated as a component of landfill gases. EPA has promulgated emission guidelines and standards of performance for municipal solid waste (MSW) landfill emissions. 40 C.F.R. §§ *60.33c*, *60.752*. "*MSW landfill emissions*" are defined as "gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste." 40 C.F.R. § 60.751. EPA has specifically identified carbon dioxide as one of the components of the regulated "MSW landfill emissions." *See* Air Emissions from Municipal Solid Waste Landfills – Background Information for Final Standards and Guidelines, U.S. EPA, EPA-453/R-94-021 (Dec. 1995), available at http://www.epa.gov/ttn/atw/landfill/landflpg.html (explaining "MSW landfill emissions, or [landfill gas], is composed of methane, carbon dioxide, and NMOC."). Thus, carbon dioxide is regulated through the landfill emission regulations at 40 C.F.R. Part 60 Subparts Cc, WWW. *See also* 56 Fed. Reg. 24468 (May 30, 1991) ("Today's notice designates air emissions from MSW landfills, hereafter referred to as 'MSW landfill emissions,' as the air pollutant to be controlled").

C. Carbon Dioxide is Subject to Regulation Under the Act Because It is Regulated In State Implementation Plans Approved Under the Act.

Finally, carbon dioxide is also regulated under various state implementation plans (SIPs), which in turn constitutes regulation under the Clean

Air Act. Most significantly, EPA has now approved and promulgated a Delaware state implementation plan revision that sets limits on CO_2 emissions. Specifically, in a Federal Register notice that became effective on May 29, 2008, EPA promulgated its approval of CO_2 emission standards, operating requirements, record keeping and reporting requirements, and emissions certification, compliance and enforcement obligations for new and existing stationary electric generators in Delaware. *See* 73 Fed. Reg. 23,101.

Critically, EPA approved emission standards for CO_2. The control requirements approved and promulgated by EPA included a CO_2 emission standard of 1900 lbs/MWh for existing distributed generators, 1900 lbs/MWh for new distributed generators installed on or after January 1, 2008, and 1,650 lb/MWh for new distributed generators installed on or after January 1, 2012. *See* Delaware Department of Natural Resources and Environmental Control (DNREC), Regulation No. 1144: Control of Stationary Generator Emissions, §3.2; *see also* 73 Fed. Reg. at 23,102-103 (codifying approval in the Code of Federal Regulations at 40 C.F.R. § 52.420).

In EPA's proposed and final rulemaking notices, the Agency plainly stated that it was approving the SIP revision "under the Clean Air Act" (see 73 Fed. Reg. 11,845 (March 5, 2008)) and "in accordance with the Clean Air Act." *See* 73 Fed. Reg. at 23,101. EPA's action in approving the SIP revision made the control requirements and obligations part of the "applicable implementation plan" enforceable under the Clean Air Act. *See* 42 U.S.C. §7602(q).

Many Clean Air Act provisions authorize EPA enforcement of requirements and prohibitions under the "applicable implementation plan." *See,*

e.g., 42 U.S.C. § 7413(a)(1) (authorizing EPA Administrator to issue a compliance order, issue an administrative penalty, or bring civil action against the violating party); *id.* at (a)(2) (Administrator may enforce the "applicable implementation plan" if states fail to do so); *id.* at (b)(1) (requiring the Administrator to commence a civil action or assess and recover a civil penalty against the owner or operator of a source or facility that violates an "applicable implementation plan"). In addition, EPA's action makes the emission standards and limitations enforceable by a citizen suit under section 304 of the Clean Air Act. 42 U.S.C. § 7604.

The Supreme Court has made clear that the requirements under an EPA-approved state implementation plan are federally-enforceable obligations under the federal Clean Air Act:

> The language of the Clean Air Act plainly states that EPA may bring an action for penalties or injunctive relief whenever a person is in violation of any requirement of an "applicable implementation plan." § 113(b)(2), 42 U.S.C. § 7413(b)(2) (1982 ed.). There can be little or no doubt that the existing SIP remains the "applicable implementation plan" even after the State has submitted a proposed revision.

General Motors Corp. v. United States, 496 U.S. 530, 540 (1990).

Thus CO_2 is a pollutant subject to regulation under the Clean Air Act both because it is subject to monitoring and reporting requirements, and because it is subject to emissions limits. A BACT limit is therefore required for the CO_2 emissions from Seminole Unit 3. The Board should remand the PSD permit and instruct FDEP to include a CO_2 BACT emissions limit.

IV. FDEP's BACT ANALYSIS FOR STARTUP, SHUTDOWN, AND MALFUNCTION EVENTS IS INADEQUATE

The PSD permit for Seminole Unit 3 excuses compliance with BACT requirements during startup, shutdown, and malfunction (SSM) events, provided that Seminole adheres to "[b]est operational practices to minimize emissions" and the duration of such events is "minimized" and "in no case exceeds 60 hours during any calendar month." Ex. 1, Final Permit, § III(A)(29), at 10-11. EPA described 60 hours as "excessive." Ex. 5 at 3. Indeed, Seminole may exceed BACT limits for 120 straight hours if an SSM event occurs near the end of one month and bleeds over into the next. Such violations are explicitly excluded from other compliance demonstrations, and will only count against annual emissions caps. *See* Ex. 1 at §§ III(A)(30), p.11; III(A)(38)(h), p. 13. Failing to set numeric limits for excess emissions in this way was illegal under the federal delegation and remains illegal under Florida's SIP approved rules.[11]

BACT, although sometimes expressed in terms of technology, is "an emission limitation," *see* 42 U.S.C. § 7479(3), and the Clean Air Act makes clear that emissions limitations must "limit[ ] the quantity, rate, or concentration of emissions of air pollutants on a *continuous* basis," *see* 42 U.S.C. § 7602(k) (emphasis added). As such:

> It is well established that BACT requirements cannot be waived or otherwise ignored during periods of startup and shutdowns. . . . [U]nder the PSD program automatic exclusions from otherwise applicable emission limits during [startup, shutdown, and malfunction] events are inappropriate. Indeed, EPA has, since 1977, disallowed automatic or blanket exemptions for excess emissions during startup, shutdown, maintenance, and malfunctions by defining most periods of excess emissions as "violations" of the applicable emission limitations.

[11] Sierra Club raised this issue in its comments on the draft permits. *See* Ex. 2 at 48-49.

In re Indeck-Elwood, LLC, PSD Appeal No. 03-04, slip op. at 66 (EAB, Sept. 27, 2006); *see also In re Prairie State Generating Co.*, PSD Appeal No. 05-05, slip op. at 115 (EAB, August 24, 2006) (holding that "BACT requirements cannot be waived or otherwise ignored during periods of startup and shutdown," although requirements may vary at different times) (quoting *In re Tallmadge Generating Station*, PSD Appeal No. 0-12, slip op. at 24 (EAB, May 21, 2003); *In re Rockgen Energy Center*, 8 E.A.D. 536, 551-55 (EAB 1999) (holding that BACT requirements apply during startup and shutdown). For this reason, "exceedances of numeric BACT limits during SSM events have been ordinarily regarded as violations" of the Clean Air Act. *In re Indeck-Elwood, LLC*, slip op, at 71. As the Board has explained, citing EPA guidance:

> Startup and shutdown of process equipment are part of the normal operation of a source and should be accounted for in the planning, design and implementation of operating procedures for the process and control equipment. Accordingly, it is reasonable to expect that careful and prudent planning and design will eliminate violations of emission limitations during such periods.
>
> . . . .
>
> [EPA Guidance.] In other words, because routine startup and shutdown of process equipment are considered part of the normal operation of a source, these events are foreseeable and can be planned and scheduled at the discretion of the owner/operator. Excess emissions (i.e., air emissions that exceed any applicable emission limitation) that occur during these periods are therefore generally not excused and are considered illegal. Apparently, EPA's rationale for considering all excess emissions as violations of applicable standards is that SIPs and PSD programs are ambient-based programs established to protect increments and the [National Ambient Air Quality Standards]. See [EPA Guidance] (explaining that the same rationale for considering all excess emissions as violations under the State Implementation Plan applies in the PSD context). The Agency feared that "[w]ithout clear definition and limitations, * * * automatic exemption provisions could effectively shield excess emissions arising from poor operations and maintenance or design, thus precluding attainment."

Id., slip op. at 71-73 (citations omitted, last two alterations in original).

So, the exclusions for excess emissions in the Seminole permit could only survive if the vague requirement that Seminole use "best operational practices" satisfies BACT. EPA observed as much in comments on the draft Seminole permit, writing that "[a]ny pollutants emitted from Unit 3 during startup and shutdown that are subject to PSD review are . . . subject to BACT requirements," and that, "[i]f the numeric BACT emissions limits for regular operations can not be met during startup and shutdown, then numeric limits need to be established [for those periods] or work practice BACT requirements should be established." *See* Ex 5 at 3. FDEP responded that it intended "adherence to 'best management practices' to represent BACT." *Id.* at 4. While, in rare circumstances, such practices might represent BACT, FDEP simply has not demonstrated that they do so here.

Such a demonstration requires a rigorous analysis. Under the federal BACT definition, applicable to the draft permit, a "work practice, operational standard, or combination thereof, may be prescribed" only if EPA "determines" that "technological or economic limitations on the application of measurement methodology would make the imposition of an emissions standard infeasible." 40 C.F.R. § 52.21(b)(12). Such a standard "shall, to the degree possible, set forth the emission reductions achievable by implementation" of the work practice or operational standard. *Id.* Florida's requirements, approved in the SIP, are word-for-word identical. *See* Fla. Admin. Code Ann. r. 62-210.200(40)(b).

Yet, no such analysis or determination appears in the Seminole permit. Instead, to justify itself FDEP appears to rely on a misreading of a Florida

regulation, Fla. Admin. Code Ann. § 62-210.700. That rule, which applies generally to air permits for stationary sources, whether or not PSD applies, provides that "excess emissions resulting from startup, shutdown or malfunction . . . shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized"; section 5 of the rule, which FDEP cites in the Seminole permit, allows FDEP to adjust "maximum and minimum factors to provide reasonable and practical regulatory controls." But these requirements are general stationary source standards and do not substitute for a BACT determination.

It is, of course, true that if emissions above those allowed during normal operations are to be tolerated, they should be constrained by best operational practices. But that is all that Fla. Admin. Code Ann. § 62-210.700(5) establishes in the BACT context, whatever it may mean for other sorts of air permit. It nowhere contains an exception to the general BACT requirement that operational practices may be adopted if and only if the imposition of a direct emission standard is infeasible, as a carefully constrained last resort. *See* 40 C.F.R. § 52.21(b)(12); Fla. Admin. Code Ann. r. 62-210.200(40)(b). In this case, FDEP has not made an infeasibility determination.

Nor does Fla. Admin. Code Ann. § 62-210.700 give FDEP license to ignore the requirement that it "shall, to the degree possible, set forth the emission reductions achievable by implementation" of an operational standard, *see* 40 C.F.R. § 52.21(b)(12); Fla. Admin. Code Ann. r. 62-210.200(40)(b), even if adopting such a standard were appropriate here. Yet, FDEP is silent on the

extent of such reductions. *See In re Indeck-Elwood, LLC*, slip op. at 74 (holding a failure to include such a discussion to be improper).

FDEP cannot forego the careful BACT analysis that applies in the PSD context by pointing to general stationary source standards. The Clean Air Act does not condone such a result. Under the PSD program, "*[n]o* major emitting facility . . . may be constructed . . . unless . . . the proposed facility is subject to [BACT]." 42 U.S.C. § 7475(a)(4). This requirement is central to "protect[ing] public health and welfare," 42 U.S.C. § 7470(1). FDEP may not avoid it by misreading state regulations. Worse still, at the time of the draft permit, the state rule did not even apply to Seminole's application, which had to be judged under federal PSD standards.

In short, FDEP has botched its BACT analysis for SSM events entirely. It has made no feasibility determination and has not even complied with the standards for operational limitations that would apply if it had done so. Infeasibility is "the only clear vehicle for non-numeric BACT limits," *In re Indeck-Elwood, LLC*, slip op. at 73, and to employ it FDEP would have had to "make an on-the-record determination that . . . compliance [with numeric emissions limitations] is infeasible during startup and shutdown and include a discussion of the specific reasons for this conclusion." *In re Tallmadge*, slip op. at 27. Here, not only has FDEP not offered such an analysis, it has pointed to no "apparent record support" that might support an infeasibility determination. *See In re Indeck-Elwood, LLC*, slip op. at 73-74. Instead, it has put forward only the feeble requirement that Seminole should "minimize emissions." It is precisely this language that the Board has recently held to be "too infirm to comport with the

relevant regulatory requirements," as "nothing in it can reasonably be interpreted as requiring the permittee to employ measures that, at a minimum, will achieve a reduction in emissions equivalent to the level of reductions expected from the application of numeric limitations." *Id.*, slip op. at 74.[12]

The proper remedy is well-established. Because there is no "on-the-record determination pointing to technical or economical limitations on the application of measurement methodology to [the Seminole plant], or some other reference point for allowing non-numeric BACT limits," the Board "cannot conclude that [FDEP] legitimately substituted numeric limits with work and operational practices." *Id.*, slip op. at 75. "Under these circumstances . . . the permit provisions substituting work and operational practices for BACT numeric limits must be remanded." *Id.*; *see also In re Tallmadge*, slip op. at 26-28 (remanding); *In re Rockgen Energy Center*, 8 E.A.D. at 554-55 (same).

V. THE PSD PERMIT FAILS TO ENSURE THAT BACT EMISSION LIMITS WILL BE ENFORCEABLE.

Because BACT must be met "on a continuous basis," see 42 U.S.C. § 7602(k), monitoring provisions in a PSD permit must be adequate to ensure continuous compliance. "[W]ithout a reliable and accurate means of ensuring compliance, emissions controls would be meaningless because they would be unenforceable." *In re ConocoPhillips Co.*, PSD Appeal No. 07-02, slip op. at 41-42 (EAB, June 2, 2008). In its comments, Ex. 2 at 41-46, Sierra Club raised significant concerns over the adequacy of Seminole's monitoring technology to assure BACT compliance. FDEP has provided no response which could

[12] The presence of annual emissions limits that include startup, shutdown, and malfunction events does not save the permit, as the exclusions apply to shorter-term BACT limits. *See In re Indeck-Elwood, LLC*, slip op. at 62 n.82 (so holding).

"adequately explain and support its rationale," *id.*, slip op. at 43, for adopting these measures.

Compliance with potential to emit and BACT limits should be demonstrated continuously. Based on EPA's guidance in the NSR Manual, the hierarchy for specifying monitoring to determine compliance is as follows: (1) continuous direct measurement of emissions where feasible; (2) initial and periodic direct measurement of emissions where continuous monitoring is not feasible; (3) use of indirect monitoring, e.g., indicator surrogate monitoring, where direct monitoring is not feasible; and (4) equipment and work practice standards where direct and indirect monitoring are not feasible. *See, e.g.*, NSR Manual at B.56; *In re ConocoPhillips Co.*, slip op. at 38-39. In general, "the permit must include conditions allowing the applicable enforcement authority to show continual compliance." *In re ConocoPhillips Co.*, slip op. at 38-39 (quoting *In re Shell Offshore, Inc.* PSD Appeal Nos., 07-01 & 07-02, slip op. at 52 n. 54). The permit fails to follow this hierarchy because it allows periodic testing when continuous direct measurement is feasible, allows indirect monitoring and equipment and work practices when periodic testing is feasible, and specifies inadequate testing when periodic monitoring is appropriate.

If a permitting authority deviates from the NSR Manual, the Board will "scrutinize such a determination carefully to ensure that all regulatory criteria were considered and applied appropriately." *In re Knauf Fiber Glass, GMBH*, 8 E.A.D. 121, 129 n. 14 (EAB 1999). In such cases, the agency must provide "an analysis that is at least as detailed as that contemplated by the NSR Manual." *In re Indeck-Elwood, LLC*, PSD Appeal No. 03-04, slip op. at 47 (EAB, Sept. 27,

2006). Whatever test or technique the agency selects must be adequately justified. While the Board will "generally defer" on such issues, "[t]he permitting authority's rationale for its conclusions . . . must be adequately explained and supported in the record." *In re ConocoPhillips*, slip op. at 26, 43 (quotation marks and alterations omitted). Further, "[o]nly where the record demonstrates that the permitting authority duly considered the issues raised in the comments and that the approach ultimately adopted by the permitting authority is rational, in light of all the information in the record, will the Board defer to the permitting authority's expertise." *Id.*, slip op. at 26; *see also id.* (collecting cases so stating).

FDEP has entirely failed to respond to the concerns Sierra Club has raised, or to explain why it has selected monitoring measures that appear to be inadequate. The flaws in the present provisions are extensive. In its comments, Sierra Club alerted FDEP to the following four issues, among others:

First, the permit requires infrequent periodic direct measurement (stack tests) to determine compliance with PM/PM10, VOC, HF, SAM, NH3, and Hg) emissions. But a stack test normally lasts only a few hours and is conducted under ideal, prearranged conditions. Staged annual or other periodic testing tells one nothing about emissions during routine operation or startups and shutdowns on the other 364 days of the year. In addition, emissions can vary over a factor of 10 or more from hour to hour and from day to day. An infrequent stack test will, therefore, not be representative of a source's ongoing emissions. In short, it is well known that "[m]anual stack tests are generally performed under optimum operating conditions, and as such, do not reflect the full-time emission conditions from a source." *See* Emission Monitoring of Stationary Sources, 40 Fed. Reg.

46,240, 46,241 (Oct. 6, 1975). As such, Sierra Club urged FDEP to move away from stack tests, which may simply miss significant violations of emissions limits.

Second, to assure that sources comply with emission limits, Sierra Club suggested that monitoring be performed more frequently than specified by the permit and that Continuous Emissions Monitors (CEMS) be used where possible. Particulate matter can be monitored with CEMS and the record does not demonstrate that CEMS for these pollutants is not feasible. Indeed, CEMS for particulate matter have been found feasible and have been required in several permits, including those issued to Longview, WV; Prairie State, IL; Iatan, MO; Trimble, KY, and Dalman Unit 4, IL. Therefore a PM CEMS should be required to determine compliance with the filterable PM/PM10 limit.

Third, even where CEMS would not be feasible, Sierra Club urged that more frequent stack testing be required, along with regular monitoring of key operating parameters or indicator pollutants that have been correlated with the applicable emission limits. The stack testing frequency in the permit is far too low, ranging from only one initial stack test (VOC) to testing every 5 years (HF) to annual testing (SAM). A typical stack test lasts about 3 hours. Over the 30 plus-year life of the facility, testing once for 3 hours would test only 3 hours out of 262,800 potential operating hours. Annual testing would test only 90 hours out of 262,800 potential operating hours or only 0.03 percent of the time. This testing frequency, Sierra Club commented, is inadequate to demonstrate continuous compliance with BACT limits and emission caps relied on to net out of PSD review. Thus, Sierra Club explained that FDEP should require quarterly stack testing for the first two years, with reductions to a lower frequency only after

compliance has been demonstrated. The comments also asked that surrogate parameters be continuously monitored. A surrogate is an indicator parameter that is related to the parameter of interest, commonly used in PSD permits to demonstrate continuous compliance with limit on VOCs, HF, and SAM. The Sierra Club recommended that the permit be modified to require the use of surrogates to determine continuous compliance with the proposed limits on VOCs (CO), HF (coal fluoride content), and SAMs (SO2 until a continuous monitor for SAM is installed) if a study demonstrated an acceptable correlation between the parameter and the surrogate.

Fourth, Sierra Club explained that the VOC limit was not enforceable because the test methods FDEP authorized did not accurately measure VOC. To comply with the Clean Air Act, the owner of an emission source must set VOC emission limits based on total VOC mass. 40 C.F.R. § 51.100(s). One cannot determine if VOC emissions are less than the PSD significance threshold or demonstrate that VOC emissions remain below this threshold unless one calculates VOCs on a total VOC mass basis.[13] The test methods listed in the permit do not reliably calculate VOCs on a total VOC mass basis. The available VOC test methods in 40 C.F.R § 60—Methods 18, 25, and 25a—do not directly address the issue of reporting VOC emissions "as VOC." As the comments set out, the available methods appeared likely to consistently underestimate the mass of VOCs actually being emitted from the project. Sierra Club

[13] Letter from Stephen D. Page, Direct, Office of Air Quality Planning and Standards, U.S. EPA, to Mary a. Gade, December 30, 2003. http://www.epa.gov/Region7/programs/artd/air/nsr/nsrmemos/gade.pdf#search=%22midwest%20scaling%20protocol%22.

recommended that the Permit be revised to evaluate available methods to measure VOCs and select a method that complies with 40 C.F.R. § 51.100(s).

FDEP was silent in the face of these criticisms and issued the final permit unaltered from the draft permit. It did not justify its departure from the NSR Manual, did not provide a reasoned basis in the record for adopting the measures it did in the face of the flaws Sierra Club identified, and, in sum, made no effort whatsoever to respond to Sierra Club's comments. FDEP has not, as a result, "provided sufficient rationale for the Board to determine whether it has exercised considered judgment," *see In re ConocoPhillips Co.*, slip op. at 43, and is therefore not entitled to any deference, *see id.* at 26. FDEP is obliged "not only explain the monitoring and observation provisions . . . and how they were derived, but also should ensure and explain how the conditions of the permit serve the purposes for which they are intended." *Id.* Further, the rationale for these decisions "must be apparent from the record." *Id.*, slip op. at 44; *see also In re Indeck-Elwood, LLC*, slip op. at 47 (explaining the detailed analysis required for departures from the NSR Manual). Because FDEP has not fulfilled these basic requirements of agency decisionmaking, and has as a result compromised the enforceability of BACT requirements, the Board should remand and require it to reconsider its decisions, taking Sierra Club's concerns into account.

THE BOARD SHOULD REMAND THE PERMIT BECAUSE IT RELIES ON INADEQUATE PRECONSTRUCTION MONITORING

Under the federal PSD program, permit applicants must as a baseline provide "an analysis of ambient air quality" in the area affected. 40 C.F.R. §

52.21(m)(1). For any pollutant for which a NAAQS has been established, this analysis must be based upon "continuous air quality monitoring data" for the area, which generally must "have been gathered over a period of at least one year and shall represent at least the year preceding receipt of the application." *Id.* at § 52.21(m)(1)(iii)-(iv). Florida has directly adopted these requirements into its PSD program. *See* Fla. Admin. Code Ann. r. 62-212.400(7). Seminole did not fulfill these mandates, instead relying upon out-dated data from distant monitoring stations. FDEP's decision to issue a permit on this shaky grounding warrants a remand.

According to Seminole's permit application, much of its meteorological PSD modeling is based upon data that was sixteen years old at the time of the application, and gathered from stations far away from the plant site. Seminole Application at 65. The data was gathered from stations at the Jacksonville, Florida airport, fifty-five miles away from the plant site, and Waycross, Georgia, over a hundred miles removed, *id.*, and dates from 1986-90. *Id.* Air monitoring data for CO and ozone, in turn, was drawn from stations in Jacksonville and Gainesville, which is over forty miles away from the site, with only PM_{10} data coming from nearby Palatka. *Id.* at 76-77. Although FDEP apparently considered the Jacksonville and Gainesville stations to have data "representative" of the project site, *id.*, there is no record evidence for this, or that the Waycross station bears any resemblance at all to the Seminole project area. Nor is there any evidence presented that meteorological conditions in the late 1980s, when that data was gathered, are similar to those in the present or at the project site. Yet, Seminole grounds its air quality monitoring on this data.

Such an ill-supported baseline is inappropriate. The EPA's *Ambient Monitoring Guidelines for Prevention of Significant Deterioration*, EPA-405/4-87-007, at 6-8 (May 1987) emphasize that original, site-specific monitoring is generally preferable, and particularly so in areas, like this one, where many emissions sources are operating. In such cases, use of existing data is generally appropriate only for monitors located within 10 km "of the points of proposed emissions," *id.* at 6-7; *see also* 40 C.F.R. Pt. 51, App. W §8.3.3.1(a) ("Spatial or geographic representativeness is best achieved by collection of all of the needed model input data in close proximity to the site of the sources"). Yet, here, Seminole relied upon significant amounts of data from miles away, much of it gathered well before the application was submitted. FDEP should have required that Seminole conduct extensive preconstruction monitoring to supplement the data available, but did not do so. The result is to leave the baseline upon which all of its analysis is built ill-supported.

Sierra Club raised these concerns in its comments, Ex. 2 at 49-50, but FDEP provided no response, despite clear federal and state requirements that it do so. *See* 42 U.S.C. § 7475(a)(2); 40 C.F.R. § 124.17(a); Fla. Admin. Code r. 62-210.350(2)(f). So, if there is a justification for the failure to require site-specific preconstruction monitoring, FDEP has not provided it.

This silence supports a remand. While, the "choice of appropriate data sets for the air quality analysis is an issue largely left to the discretion of the permitting authority," the agency nonetheless must "adequately justi[fy] [the decision] in the record." *In re Knauf Fiber Glass, GMBH*, 8 E.A.D. 121,147 (EAB 1999). FDEP has provided no such justification, and so the Board has no

grounds to uphold its decision. "Under the circumstances, this matter must be remanded to [FDEP] so that it can demonstrate, to a greater degree than heretofore, that it has given, or will give . . . thoughtful and full consideration to all public comments before making the final permit decision." *In re Rockgen Energy Center*, 8 E.A.D. 536, 557 (EAB 1999).

VI. THE FAILURE TO ADEQUATELY ANALYZE IMPACT TO SOILS AND VEGETATION WARRANTS A REMAND.

Under both Florida and federal regulations, a PSD permit may not issue until the applicant has "provide[d] an analysis of the impairment to . . . soils and vegetation that would occur as a result of the source." 40 C.F.R. § 52.21(o); Fla. Admin. Code Ann. r. 62-212.400(8)(a). While this "regulation itself does not specifically require a baseline assessment of the existing soils and vegetation, presumably such an analysis would necessarily be part of the inquiry into whether the proposed source would impair the soils and vegetation." *In re Indeck-Elwood, LLC*, PSD Appeal No. 03-04, slip op. at 43 n. 63 (EAB, Sept. 27, 2006). The Seminole project would impact three national wildlife refuges, all PSD Class I areas within 300 km of the site, yet neither Seminole nor FDEP conducted a careful analysis of these impacts, despite the clear requirements of the state and federal rules. Nor did FDEP respond to the concerns Sierra Club raised in its comments, *see* Ex. 2 at 18-21, regarding these impacts. These failures require a remand.

Although the soil and vegetation analysis requirements apply generally, they are particularly important when ecologically sensitive areas are nearby, as there are here. The Clean Air Act requires FDEP to consider and protect natural

resources. Among the purposes of the PSD program are to "preserve, protect and enhance the air quality in... areas of natural, recreational, scenic or historic value." 42 U.S.C. § 7470(2). To preserve and protect such areas the Act mandates that "[n]o major emitting facility ... may be constructed ... unless ... (2)... the required analysis has been conducted in accordance with regulations promulgated by the Administrator, and a public hearing has been held with opportunity for interested persons including representatives of the Administrator to appear and submit written or oral presentations on the air quality impact of such source, alternatives thereto, control technology requirements, and other appropriate considerations." 42 U.S.C. § 7475(a)(2). EPA has further explained that such an analysis "should be based on an inventory of soils and vegetation types found in the impact area [and] [t]his inventory should include all vegetation with any commercial or recreational value, and may be available from conservation groups, State agencies, and universities." NSR Manual at D.4.

Seminole identified three PSD Class I areas within 300 km of the proposed Seminole site. Seminole Air Permit Application, at 59. The Okefenokee National Wildlife Area, which includes the Okefenokee Wildlife Refuge, lies 108 km north of the project and contains the Okefenokee Swamp, which is covered with cypress, blackgum, and bay forests scattered throughout a flooded prairie made of grasses, sedges, and various aquatic plants.[14] The peripheral upland and almost 70 islands within the swamp are forested with pine interspersed with hardwood hammocks. With its varied habitats, the Okefenokee

[14]U.S. Fish and Wildlife Serv., Okefenokee Wildlife Refuge available at http://www.fws.gov/okefenokee/.

is known for its abundance of plants, wildlife and birds. The Okefenokee Wildlife Refuge is home to endangered wildlife and plants, including the Florida panther, American alligator, and indigo snake.[15]

The second closest National Wilderness Area is the Chassahowitzka National Wildlife Refuge, which is located 137 km to the southeast of the proposed Seminole 3. Air Permit Application, at 59. The Chassahowitzka consists of coastal saltmarsh, shallow bays, tidal streams, and rivers, mangrove islands, and coastal maritime hammock.[16] The refuge provides habitat for approximately 250 species of birds, over 50 species of reptiles and amphibians, and at least 25 species of mammals. Endangered and threatened species on the refuge include the West Indian manatee, sea turtles, and bald eagles.[17]

The Wolf Island National Wildlife Refuge is located 186 km to the north. Air Permit Application, at 59. Wolf Island NWR, which includes Egg Island and Little Egg Island, was established on April 3, 1930 as a migratory bird sanctuary. The refuge consists of a long narrow strip of oceanfront beach backed by a broad band of salt marsh.[18] Several species of threatened and endangered species can be found within the Wolf Island NWR, including the bald eagle, American alligator, loggerhead sea turtle, piping plover, and wood stork.[19]

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[15] U.S. Fish and Wildlife Serv., Okefenokee National Wildlife Refuge Amphibians, Fish, Mammals and Reptiles List available at http://www.fws.gov/okefenokee/okefenokee_amphib_fish_mam_rep98.pdf.
[16] U.S. Fish and Wildlife Serv., Chasshowitzka National Wildlife Refuge, available at http://www.fws.gov/chassahowitzka/.
[17] Id.
[18] U.S. Fish and Wildlife Serv., Wolf Island National Wildlife Refuge, available at http://www.fws.gov/wolfisland/index.htm.
[19] U.S. Fish and Wildlife Serv., Threatened and Endangered Species of Savannah Coastal Refuges, available at http://www.fws.gov/savannah/endangered.htm.

Unfortunately, identifying the existence of these areas is all that Seminole did. In its application, it generically discusses the sorts of harms to soils and vegetation that its pollutants may cause, *see* Seminole Application at 80-81, but failed to conduct any sort of rigorous on-the-ground analysis.

Instead, with regard to soils, Seminole explained that "[t]he soils of Class I areas are generally classified as histosols or entisols," noted that those soil types are "relatively insensitive to atmospheric inputs," and then concluded that any impacts upon the national wildlife areas would be insignificant. *Id.* at 80. Seminole did not, however, actually sample the soils in the areas in question, nor conduct any sort of testing upon them. It did not, in other words, base its analysis upon an "inventory of the soils and vegetation types found in the impact area," as the NSR Manual requires at D.4, and nor did it use "an analysis that is at least as detailed as that contemplated by the NSR Manual." *In re Indeck-Elwood, LLC*, slip op. at 46-47 (citing *In re Knauf Fiber Glass, GMBH*, 8 E.A.D. 121, 129 n. 14 (EAB 1999). Instead, it strung together assumptions about the impacts of its emissions upon wildlife areas of national importance. Because "the language of the statute contemplates a comparative analysis of some kind between the existing baseline conditions of soils . . . at the site and in the potentially affected area, and the effects of the emissions on such baseline conditions," *In re Indeck-Elwood, LLC*, slip op. at 42-43, the failure to establish an empirically-valid baseline is fatal to Seminole's analysis.

The vegetation analysis was little better. Again, Seminole conducted no survey of the vegetation growing in the three National Wildlife Areas. Instead, it described generally the effects of various pollutants on plants, *See* Seminole

Application at 80-83, and then modeled emissions solely from the project upon the three sensitive areas. *Id.* at 81-83.. Seminole, in other words, ignored existing pollutant loads, ecological conditions on the ground, and the actual makeup of the botanic communities it could affect. But these sites do not experience impacts only from the proposed project and they do not consist of "vegetation" but of individual species with varying sensitivities to air pollution. Yet, "in order to determine whether is any vegetation of significant commercial or recreational value for which an analysis would need to be performed, one would presumably need to know what plant species were at issue." *In re Indeck-Elwood, LLC*, slip op. at 43 n. 63. Seminole should, in other words, have identified the relevant species, gauged their present health in situ, and then modeled the impacts of its emissions when added to existing conditions. That its analysis was inadequate is clear, as the Board has rejected a vegetation analysis that at least contained *some* species data because the data was out-of-date and did not accurately characterize the impacted site, *see id.* , slip op. at 45. Here, Seminole did not rely upon a specific species list at all. It analysis was purely generic, and so falls well below the standard set by *In re Indeck-Elwood, LLC.*

FDEP's silence on these concerns is unsupportable. It not only accepted Seminole's cursory analysis at face value, it nowhere responded to Sierra Club's detailed critique. The Board has held a permitting agency's response to similar criticisms improper when those responses were "largely conclusory" and did "not provide or reference any more detailed analyses" supporting their conclusions. *Id.*, slip op. at 39-40. FDEP did not provide even conclusory responses: it did not respond at all. "At bottom, . . . in view of the proximity of the [Seminole] facility"

to the national wildlife areas, " and the comments received pertaining to the draft permit identifying a number of the problems with [FDEP's] analysis . . . [FDEP's] response to the comments and its record support for its conclusions regarding soil and vegetation impacts were lacking." *Id.*, slip op. at 47.

In similar circumstances, the Board has remanded for the permitting agency either to "clarify how its decision both comports with the requirement for a more rigorous analysis and addresses the comments that were received on this issue" or to "perform or consider analysis . . . sufficient to address the concerns." *Id.*, slip op. at 50-51. The Board should do so here. Any remand should direct that FDEP consider soils and vegetations impacts in both the three PSD Class I areas and in the region affected by the project generally.

VII. FDEP'S FAILURE TO ASSESS THE IMPACT OF THE RECENTLY MANDATED CASE-BY-CASE MACT DETERMINATION ON THE SEMINOLE PSD PERMIT REQUIRES REMAND.

Sierra Club's comments on the draft permit detailed extensive flaws with the analysis of mercury emissions. *See* Ex. 2 at 21-31. After the comment period on the draft permit closed, the D.C. Circuit issued its opinion in *New Jersey v. EPA*, 517 F.3d 574 (D.C. Cir. 2008), which vacated the Clean Air Mercury Rule and had the effect of requiring new electric generating units, including Seminole, to comply with section 112(g) of the Clean Air Act, 42 U.S.C. § 7412(g). Section 112(g) requires the permitting authority to determine that new or modified major sources of hazardous air pollution will meet maximum achievable control technology (MACT) emission limitations for each hazardous pollutant (HAP) emitted by the facility. In its Final Determination, FDEP acknowledged the D.C. Circuit decision and stated, "The Department will require an application for case-

by-case MACT and will issue its determination thereof in a separate agency action." Ex. 5 at 1.

It is both unreasonable and unlawful for FDEP to issue the PSD permit for Seminole without first, or simultaneously, conducting the required case-by-case MACT determination, and specifically determining, on the record, the impact that MACT-related requirements will have on the PSD control technology assessment (especially the BACT analysis) and the corresponding permit limitations. Until a case-by-case MACT review has been conducted – or at the very least until FDEP has performed a meaningful assessment of the likely implications of MACT-related emission limits – FDEP has no way of assessing how the technology-forcing MACT requirements may affect the plant's ability to control PSD pollutants. The technologies prescribed to meet MACT may allow for far greater cost-effective reductions in PSD pollutants than may have been true when FDEP issued the draft PSD permit. Or changes in fuels required pursuant to MACT may necessitate entirely different pollution-control methods as BACT. Or the MACT limits may affect the emissions calculations that were the basis of the Department's earlier PSD analysis. The Board should remand the permit and require FDEP to consider the implications of the MACT requirements in its PSD analysis.

A. The Clean Air Act Requires Case-by-case MACT for Seminole

The Clean Air Act requires that EPA list "all categories of and subcategories of major sources" of HAP, 42 U.S.C. § 7412(c)(1),[20] and

[20] A major source is, without limitation, "*any* stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year of any hazardous air pollutant or 25 ton

promulgate regulations that establish "emissions standards . . . applicable to new and existing sources of hazardous air pollutants [that] require the maximum degree of reduction in emission" that the Administrator determines is achievable, 42 U.S.C. § 7412(d)(2). These "maximum achievable control technology" standards for new sources must be no less stringent than "the emission control that is achieved in practice by the best controlled similar source." 42 U.S.C. § 7412(d)(3). The Act requires that EPA meet certain deadlines for promulgating standards under section 112(d) to control emissions of these pollutants from identified categories of major sources. *See, e.g.*, 42 U.S.C. § 7412(c)(5), (c)(6), (c)(8), (e)(1), (e)(3). If EPA has failed to promulgate emission standards under section 112(d), however, new sources (and modifications to existing sources) must obtain MACT emission limitations, established on a case-by-basis, before they can be built. *See* 42 U.S.C. § 7412(g)(2).[21] In particular, Section 112(g)(2)(B) provides:

> After the effective date of a permit program under subchapter V of this chapter in any State, no person may construct or reconstruct *any* major source of hazardous air pollutants, unless the Administrator (or the State) determines that the maximum achievable control technology emission limitation under this section for new sources will be met. Such determination shall be made on a case-by-case basis where no applicable emission limitations have been established by the Administrator.

42 U.S.C. § 7412(g)(2)(B) (emphasis added); *see also* 40 C.F.R. § 63.42(c).

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per year or more of any combination of hazardous air pollutants." 42 U.S.C. § 112(a)(1) (emphasis added).

[21] Florida regulations adopt the EPA regulations found at 40 C.F.R. Part 63, Subpart B, governing section 112(g) determinations for major sources, with certain important changes that make the relationship between the PSD and MACT determinations even more clear, as discussed in section VIII.D.2 below. *See* 62-204.800(11)(d)2 F.A.C.

In 2000, EPA added coal- and oil-fired electric generating units ("EGUs") to the list of major sources of HAP,[22] after completing the study of hazardous emissions from EGUs required under CAA section 112(n).[23] By virtue of this action, EGUs became a listed section 112 source category for which EPA is required to establish MACT standards.

EPA has failed to meet its obligation to promulgate MACT standards for new and existing coal- and oil-fired electric generating units (EGUs). This failure is made clear by *New Jersey v. EPA*, 517 F.3d 574. In vacating EPA's "clean air mercury rule," the Court noted that the Agency had illegally attempted to remove EGUs from the list of source categories established pursuant to section 112(c). Accordingly, EPA's purported "delisting" was ineffectual, and the December 2000 source category listing of EGUs remains in effect.[24]

In the Final Determination, FDEP acknowledges that by virtue of *New Jersey*, Seminole is now obligated to obtain a MACT determination before it may begin construction on the new unit. Ex. 5 at 1. Thus, at this juncture, it is clear that the proposed Seminole plant is subject to case-by-case MACT review.

B. Case-by-case MACT Issues are Properly Before the Board on Review

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[22] See 65 Fed. Reg. 79825, 79828 (Dec. 29, 2000) (2000 Listing Decision).

[23] U.S. Environmental Protection Agency, *Study of Hazardous Air Pollutant Emissions from Electric Utility Steam Generating Units—Final Report to Congress* ("Utility Study"), (Feb. 1998). The full report is available at: http://www.epa.gov/mercury/report.htm and is incorporated by reference here.

[24] Specifically, in vacating EPA's delisting decision and the associated Clean Air Mercury Rule (CAMR), the Court concluded:

> [I]n view of the plain text and structure of section 112, we grant the petitions and vacate the Delisting Rule. *See Allied-Signal, Inc. v. U.S. Nuclear Regulatory Comm'n*, 988 F.2d 146, 150-51 (D.C. Cir. 1993). This requires vacation of CAMR's regulations for both new and existing EGUs. EPA promulgated the CAMR regulations for existing EGUs under section 111(d), but under EPA's own interpretation of the section, it cannot be used to regulate sources listed under section 112; EPA thus concedes that if EGUs *remain listed under section 112, as we hold*, then the CAMR regulations for existing sources must fall. Resp't Br. at 99, 101-02; see also Delisting Rule, 70 Fed. Reg. at 16,031.

517 F.3d at 584.

As FDEP acknowledges, the outcome of the *New Jersey* case more than a year after the close of the comment period changed the nature of the substantive preconstruction requirements to which the Seminole project is subject. Because of this new circumstance, the Board should consider Sierra Club's claim that FDEP must assess the impact of the MACT requirement on the PSD analysis for Seminole before issuing a final PSD permit.

Pursuant to 40 C.F.R. § 124.13, "in order to demonstrate that an issue has been preserved for appeal, a petitioner must show that any issues being appealed were raised with reasonable specificity during the public comment period." *In re Indeck Elwood*, PSD Appeal 03-04, slip op. at 23 (EAB, Sept. 22, 2006), 13 E.A.D. [redacted] "Alternatively, a petitioner may demonstrate that an issue was not reasonably ascertainable during the public comment period." *Id.* n.49 (citing *In re Encogen Cogeneration Facility*, 8 E.A.D. 244, 250 n.8 (EAB 1999)). In this instance, Sierra Club raised issues on the Draft Permit advocating a BACT emissions limit for the control of mercury based on Florida regulations. *See* Ex. 2 at 22. In addition, other commenters submitted a letter to FDEP on July 3, 2008, to alert the agency to the implications of the case-by-case MACT requirement on its ongoing PSD review. *See* Ex. 4 (Letter from Natural Resources Defense Council and Southern Alliance for Clean Energy to FDEP, July 3, 2008) at 19-21. The Board should consider the MACT-related issues raised in this Petition because they were not "reasonably ascertainably" during the comment period on the Draft Permit.[25]

[25] Petitioner notes that the situation here is very different than that in *In re Christian County* (PSD Appeal No. 07-01 (EAB 2007)), where the Board found that the CO_2 related implications flowing from the Supreme Court's decision in *Massachusetts v. EPA* were reasonably ascertainable

C. *MACT Includes Technology-Forcing Requirements That Are More Stringent Than BACT*

The MACT process is an analytic exercise with a more stringent set of technology-forcing criteria that is likely to result in more stringent emission limits than BACT. Indeed, there is a long line of D.C. Circuit case law defining the parameters of the MACT process and acknowledging Congress's intent to impose particularly stringent controls on HAP.

The MACT process involves a two-step analysis that results in numerical emissions limits for hazardous air pollutants.[26] The first step requires that the regulatory authority establish a "MACT floor" – a minimum level of stringency for the MACT standard based on specifically enumerated criteria. For new major sources, such as Seminole, the MACT floor may "not be less stringent than the emission control that is achieved in practice by the best controlled similar source." 42 U.S.C. § 7412(d)(3). The second step of the MACT analysis involves consideration of "beyond the floor" controls – emission limitations that are more stringent than the MACT floor. Such additional pollution control requirements are mandatory where they would be "achievable" considering cost and other factors enumerated in the Act. *See* 42 U.S.C. § 7412(d)(2); *see also*

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during the comment period for that permit. In this instance, unlike in *Christian County*, the *New Jersey* case was still in its early stages during the comment period for Seminole (in fact, while one-page petitions for review were filed in 2005, opening briefs in the *New Jersey* case were not filed until January 2007, months after the Seminole comment period had closed). Moreover, it only became clear that the delisting-related challenge would significantly factor into the Court's decision when the court issued its Order scheduling oral argument in November 2007, over a year after the close of the comment period on Seminole draft permit. Also, there is no evidence here, as there was in *Christian County*, that this issue had in fact been raised or specifically considered by the parties in other proceedings prior to the relevant comment period. Thus, in order to give meaning to the term "reasonably" in the rule's reference to "reasonably ascertainable," the Board must recognize "reasonable" limits on the ability of the public in permit proceedings to foresee the outcome of possibly related ongoing, early-stage litigation. Accordingly, the Board's jurisdiction over the MACT-related issues raised here is proper.

[26] Under certain circumstances, EPA may impose work practice requirements in lieu of numerical emission limits, but this authority is specifically constrained by the act. See 42 U.S.C. § 7412(h).

See Nat'l Lime Ass'n v. EPA, 233 F.3d 625, 639 (D.C. Cir. 2000) (hereinafter "*National Lime*").

MACT standards must include emission limitations for each HAP that a facility will emit, and the Clean Air Act specifically lists more than 180 individual hazardous air pollutants that are potentially subject to control under the Act's MACT program. 42 U.S.C. § 7412(b). As the D.C. Circuit has explained, the regulating agency has a "clear statutory obligation to set emission standards for each listed HAP" that a facility will emit. *National Lime*, 233 F.3d at 634. Therefore, when a facility is subject to the Clean Air Act's case-by-case MACT provisions, FDEP must establish emissions limitations for each and every HAP that the facility will emit. With respect to electric generating units, like Seminole, this means FDEP must specifically identify the full range of HAP emissions the facility will emit, and establish standards pursuant to section 112(g) that address each of those HAPs.

In its 2000 Listing Decision, EPA concluded that "Coal- and oil-fired electric utility steam generating units . . . emit a significant number of the 188 HAP on the section 112(b) list." 65 Fed. Reg. 79825, 79828 (Dec. 29, 2000). And in the final report to Congress, required under section 112(n), EPA explained that EGUs typically emit some 67 listed HAP (including in addition to mercury, toxics like arsenic, beryllium, cadmium, chromium, dioxins, lead, and manganese). Utility Study, n. XXX *supra*. Once the applicant has identified each HAP that its proposed facility will emit, the regulator must establish MACT *independently for each HAP*. Thus, for each HAP, the regulator must identify the individual best performing similar source and identify the emission performance

that that source achieves in practice. While such emission limitations may include standards for categories of pollutants that are represented by a "surrogate" pollutant, a regulator may not arbitrarily identify a surrogate without specifically linking the surrogate with *each HAP* that it is intended to represent. *See Mossville Envt'l Action Now v. EPA*, 370 F.3d 1232, 1243 (D.C. Cir. 2004).[27] Accordingly, in this instance, FDEP will need to identify the emission limitation achieved in practice by the single best performing similar source for each of dozens of HAP that the Seminole plant is likely to emit.

Each such MACT floor must accurately reflect the level of performance that the relevant best performing source *actually achieves*, and may not consider cost, technical or economic feasibility, or achievability for the source that will be subject to the MACT limit. *See, e.g., National Lime*, 233 F.3d at 640 ("cost may not influence the determination of a MACT floor, which depends exclusively upon the emission reductions achieved by the best-performing sources."); *Cement Kiln Recycling Coalition v. EPA,* 255 F.3d 855, 857-58 (D.C. Cir. 2001) (same).

[27] The Court in *Mossville* rejected EPA's reliance on vinyl chloride as a surrogate for all HAP form PVC production facilities, ruling unambiguously that EPA was required to "establish a correlation between the surrogate and the HAP" and that to do so the agency was affirmatively required to identify each HAP that the facility would emit, and directly link each such HAP with the chosen surrogate. 370 F.3d at 1243. It was fatally insufficient for EPA to simply assert without detailed, HAP-specific analysis that vinyl chloride was an appropriate surrogate for all HAP. In fact, surrogates are appropriate only where they meet certain criteria intended to ensure that they will actually serve to demonstrate MACT level control of all represented HAP. In particular, the D.C. Circuit has explained that the use of surrogates is permissible only if it is scientifically reasonable. *See National Lime,* 233 F.3d at 637. At minimum, to rely on a surrogate, the regulator must demonstrate that the surrogate and the class of pollutants it represents are "invariably present" together in the emissions; that the applicable control technology "indiscriminately captures" both the surrogate and the represented pollutants; and that these controls are the "*only means by which facilities 'achieve' reductions*" in the target pollutants. *See Sierra Club v. EPA*, 353 F.3d 976, 984 (2004) (*citing National Lime*, 233 F.3d at 639) (addressing EPA's use of PM as a surrogate for metal HAP). If a target HAP and its proposed surrogate do not behave similarly with respect to controllability, then the surrogate approach is impermissible. For example, if different control technologies, or the same technology used under different conditions, will remove HAP in different proportions with respect to the surrogate pollutant, then the surrogate may not be used unless there is a mechanism to ensure that in each instance the individual target HAP itself will be controlled at least to the degree that that HAP is controlled by the best performing source.

On numerous occasions, the D.C. Circuit has specifically rejected EPA's attempt to set floors at levels that it believed would "reflect what the agency determines to be *achievable* through the use of particular technology." *Cement Kiln,* 255 F.3d 855, 861 ("EPA may not deviate from section [112(d)(3)]'s requirement that floors reflect what the best performers are *actually achieving* by claiming that floors must be *achievable* by all sources using MACT technology.") (emphasis added). Whatever process a permitting agency uses to establish MACT floors, it "must show not only that it believes its methodology provides an accurate picture of the relevant sources' actual performance, but also *why* its methodology yields the required estimate."[28] *Id.* at 862; *see also Sierra Club v. EPA,* 233 F.3d at 632 ("to comply with the statute, EPA's method of setting emission floors must reasonably estimate the performance of relevant best performing plants").

Significantly, when identifying a MACT floor for new units, the method of control that the reference unit employs is *entirely irrelevant.* The actual performance of the best performing similar source (for each HAP) *is* the MACT floor – whether that level of performance is achieved through use of emissions control equipment, through process controls or cleaner processes, through management of operating parameters, through use of cleaner inputs or fuels, by some other mechanism, or by some combination of measures. *See Cement Kiln,*

[28] In this respect, the permitting agency may not rely on permit limits as reflecting the MACT floor unless it can affirmatively demonstrate that the relevant permit limits, in fact, reflect the emissions control *achieved in practice* by the relevant best performing sources. *Northeast Maryland Waste Disposal Authority v. EPA*, 358 F.3d 936, 953-54 (D.C. Cir. 2004) (*citing Sierra Club v. EPA*, 167 F.3d 658 (D.C.Cir.1999)). This requirement is a significant departure from BACT, where EPA routinely relies on permit limits with no demonstration that the permit limits reflect the best actual performance.

255 F.3d at 863 ("The statute itself . . . directs EPA to consider factors such as 'process changes, substitution of materials or other modifications . . . design, equipment, work practice, or other operational standards . . . [or] a combination' of above, suggesting that 'Congress itself recognized that many factors . . . affect sources' emissions" (internal citations omitted)) (quoting Sierra Club's Opening Brief in *Cement Kiln*).[29]

Indeed, the effectiveness of measures leading to superior emissions performance at the MACT floor reference facility need not be quantified, or even quantifiable. *See Cement Kiln,* 255 F.3d at 865. Once the best performing source has been identified for a particular pollutant, that source's actual level of performance is the MACT floor even if the regulator cannot identify *how* the source achieves its emissions control, and even if the source does not *intentionally* control emissions at all. *See Sierra Club v. EPA*, 479 F.3d at 882-83 (D.C. Cir. 2007) (explaining that reliance on the actual performance of the relevant best performing source as the MACT floor "requires neither an intentional action nor a deliberate strategy to reduce emissions"). In short, with respect to MACT floors, method of control and achievability at the proposed facility as proposed are *categorically irrelevant* – if a proposed facility cannot

[29] The Legislative History of the CAA Amendments of 1990 states:

> The technologies, practices or strategies which are to be considered in setting emission standards under this subsection go beyond the traditional end-of-stack treatment or abatement systems. The Administrator is to give priority to technologies or strategies which reduce the amount of pollution generated through process changes or the substitution of materials less hazardous.

S. Rep. No. 101-228, at 168. *See also National Lime*, 233 F.3d at 634.

achieve the identified MACT limit, the proposed facility, *not* the MACT limit, must change.[30]

Finally, the quality of inputs and fuel may not serve as a justification for ignoring a facility as the best performing similar source. Inputs, including fuel quality, are without question within the scope of those measures that Congress intended sources would use to comply with MACT requirements. Moreover, the unavailability of comparable fuels or inputs is *not* a justification for deviating from the statutory obligation to identify and impose MACT floor limits that reflect the actual performance of the best performing similar source. *See Sierra Club*, 479 F. 3d at 882-83 (rejecting EPA's reliance on the same justifications it offered in *Cement Kiln* for deviating from the MACT floor requirements in the Act, "i.e., a lack of data to quantify the effects of non-technology factors and a concern that floors based on clean [inputs] would be unachievable because of the inability of [sources] to switch [inputs]").[31]

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[30] As the D.C. Circuit has recognized, "section [112(d)(3)] provides that 'the maximum degree of reduction in emission that is deemed achievable . . . shall not be less stringent than' what the best-performing sources 'achieve.' Section 112(d)(3) therefore limits the scope of the word 'achievable' in section [112(d)(2)]." *Cement Kiln*, 255 F.3d at 861. *See also Sierra Club v. EPA*, 479 F.3d 875 (D.C. Cir. 2007).

[31] Finally, "similar source" for purposes of new EGU's should be broadly construed – to do otherwise would undermine the clear intent of Congress to emphasize process changes and other emission control options not associated with end-of-stack controls. EPA has acknowledged that "similar source" is a broader term than "source category," explaining that it

> "believes that because the Act specifically indicates that existing source MACT should be determined from within the source category and does not make this distinction for new source MACT, that Congress intends for transfer technologies to be considered when establishing the minimum criteria for new sources.

61 Fed. Reg. 68,384-385. This view is consistent with Congressional intent for process changes, substitution, and other non-technology controls to play a preferential role in reducing HAP. *See National Lime*, 233 F.3d at 634 ("The technologies, practices or strategies which are to be considered in setting emission standards under this subsection go beyond the traditional end-of-the-stack treatment or abatement system. The Administrator is to give priority to technologies or strategies which reduce the amount of pollution generated through process changes or the substitution of materials less hazardous. Pollution prevention is to be the preferred strategy wherever possible."(citing S. Rep No. 101-228, at 168)). Accordingly, it would be inconsistent with the intent of the Act for a regulator to narrowly define the universe of sources that it

In short, it is clear from the language of the MACT provisions and from relevant case law, that the emissions control analysis under this regulatory program is different from and significantly more stringent than BACT.[32] As discussed below, these differences have important implications for the regulatory process at issue in this case.

D. FDEP's Failure to Consider the PSD Implications of Mandatory MACT Review is Unreasonable and Unjustifiable

FDEP cannot conduct a reasonably complete BACT analysis without first (or simultaneously) performing a MACT analysis. In this instance, FDEP not only failed to conduct a case-by-case MACT analysis, it failed to perform *any* analysis of what MACT would require and what implications MACT-related requirements would have on the proposed facility's ability to control PSD pollutants. The agency simply issued the final PSD permit without making a single change from the draft permit, entirely ignoring the intervening imposition of the MACT requirement and the potential impact of that requirement on emissions of PSD pollutants. Moreover, FDEP did not respond to comments pointing out the importance of considering the interactions between MACT and PSD (and the BACT emission limits in particular).

In the context of preconstruction review under the PSD program, the Clean Air Act specifically recognizes the significance of *all* preconstruction

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considers to be "similar" to artificially exclude control options that are in fact contributing to the superior emissions performance at the best performing sources. At minimum, with respect to coal-fired EGUs, "similar source" should be understood to include all coal-based steam generating units as EPA defines that term in its regulations.

[32] As the Board knows well, BACT expressly requires consideration of cost and other factors, and contemplate limits that are tempered on a case-by-case basis to ensure availability, technological feasibility, and practical and economic achievability of control measures that will allow the source to meet the identified numerical emissions limitation.

requirements. Indeed, the PSD permitting provisions reference MACT (both directly and indirectly) and provide a clear indication that Congress recognized the collective significance of the various preconstruction permitting requirements, and the potential for interaction between parallel analyses, especially MACT and BACT. Moreover, Florida regulations require that the MACT determination be made in the context of the PSD permitting process.

1. *Section 165(a)(3) Contemplates Case-by-case MACT as a PSD Requirement*

Congress identified the basic prohibitions of the PSD program and laid out the various preconstruction obligations for new major sources of emissions in section 165(a) of the Clean Air Act. Significantly, Congress made compliance with those preconstruction obligations a substantive component of PSD requirements. *See* 42 U.S.C. § 7475(a). In particular, this section states:

> No major emitting facility . . . may be constructed in any area to which this part applies unless . . .
> (3) the owner or operator of such facility demonstrates . . . that emissions from construction or operation of such facility will not cause, or contribute to, air pollution in excess of *any . . . applicable emission standard or standard of performance under this chapter.*

42 U.S.C. § 7475(a) (emphasis added). That is, in addition to the obligation to obtain a PSD permit (§165(a)(1)), to meet specific public participation requirements (§165(a)(2)), to impose BACT (§165(a)(4)), and to conduct an analysis of air quality impacts (§165(a)(6)), the PSD provisions themselves require an applicant to "demonstrate" that it will meet case-by-case MACT (§165(a)(3)). Thus, the Act incorporates compliance with case-by-case MACT into the core prohibition of the PSD provisions, indicating that these preconstruction requirements are interrelated.

Because a case-by-case MACT "demonstration" (pursuant to section 112(g)) is subsumed as one of the PSD program's emission limitation requirements (through section 165(a)(3)), and because it is likely to have significant implications for the level of control achievable and appropriate under another mandatory PSD emission control provision (BACT), it is unreasonable for the MACT analysis to occur in isolation, as a separate and distinct process after the other PSD analysis has already reached its conclusion.

a. Section 169(3) Contemplates Cross-consideration of MACT in the BACT Analysis

The Clean Air Act specifically references the section 112 MACT provisions in the definition of BACT. After generally defining BACT, the Act states:

> In no event shall application of 'best available control technology' result in emissions of any pollutants which will exceed the emissions allowed by any applicable standard established pursuant to section . . . 112 of this title.

42 U.S.C. § 7479(3). This language further demonstrates that Congress was aware of possible interactions between MACT and PSD review and explicitly required permitting authorities to take MACT into consideration when adopting PSD limits.

In effect, this provision establishes MACT as the "floor" for BACT emission limits when the two programs target the same pollutants (for example, when HAP emission controls use a PSD pollutant as a surrogate). When MACT applies on a case-by-case basis as a function of section 112(g) and the MACT analysis has yet to occur (as is the case here), it is *impossible* to know what the minimum stringency of the BACT limit must be. As a result, it is unreasonable to finalize the PSD permit in the absence of a case-by-case MACT analysis because that

analysis is essential to a mandatory component of BACT (identification of minimum stringency when MACT and BACT overlap).

2. *Florida Regulations Require FDEP to Incorporate the MACT Determination in the PSD Process*

Florida regulations adopt the EPA regulations found at 40 C.F.R. Part 63, Subpart B, governing section 112(g) determinations for major sources. *See* 62-204.800(11)(d)2 F.A.C. As explained below, however, the Florida regulations include an important modification of the federal regulations that demonstrates unambiguously that the MACT determination must be made as a part of the PSD process.

The federal regulations adopted by Florida require the permitting agency to prepare a "Notice of MACT Approval," which is:

> a document issued by a permitting authority containing all federally enforceable conditions necessary to enforce the application and operation of MACT or other control technologies such that the MACT emission limitation is met.

40 C.F.R. § 63.41. The Notice of MACT Approval must contain MACT emission limitations, as well as notification, operation and maintenance, performance testing, monitoring, reporting and record keeping requirements. 40 C.F.R. § 63.43(g)(1)&(2). The permitting authority must offer an opportunity for public input on the Notice of MACT Approval, which Florida replaces with its own procedures. *See* 40 C.F.R. § 63.43(h); 62-204.800(11)(d)2.e F.A.C.; 62-210.350 F.A.C. After the effective date of the Notice of MACT Approval, the provisions contained therein are federally enforceable. 40 C.F.R. § 63.43(g)(3).

In adopting these federal regulations, Florida explicitly brought the MACT determination into the PSD process by stating, "The 'Notice of MACT Approval'

as defined in 40 C.F.R. 63.41 shall be the air construction permit." 62-204.800(11)(d)2.b F.A.C. Thus the air construction permit *is* the Notice of MACT Approval, so clearly, that permit must contain any applicable MACT limits. Florida regulations state further that "[t]he Notice of MACT Approval shall become effective upon issuance of the air construction permit by the Department." 62-204.800(11)(d)2.f F.A.C. Thus, the air construction permit, which is the vehicle for the PSD analysis, must also include the MACT determination. Under Florida law, therefore, the MACT determination and PSD analysis must proceed in tandem.

3. FDEP's Failure to Conduct a MACT Analysis Requires a Remand

The case-by-case MACT determination will unquestionably affect the BACT analysis. Each of these two regulatory programs is inherently technology-based, and technology-forcing in the broadest sense of that term, potentially affecting not just add-on control technology, but process technology, raw inputs, fuel quality, fuel mix, operational parameters, work practices, etc. Thus, the impact of one regulatory program on these "technology" choices for the project necessarily will have implications for what is achievable or appropriate under the other program. And because the analysis under the MACT program is more rigid than BACT, as described above, MACT is likely to drive at least some of the basic emission control options for the Seminole plant. The fact that the MACT program addresses HAP while PSD addresses non-HAP pollutants is ultimately not particularly significant. Permitting agencies almost always elect to use surrogate pollutants for at least some HAP – and often those surrogates include pollutants that are actually regulated under the PSD program or that are subject

to similar control strategies. *See Sierra Club v. EPA*, 353 F.3d 976, 984 (2004) (*citing National Lime*, 233 F.3d at 639) (addressing EPA's use of PM as a surrogate for metal HAP).

As a result, in order to meet the strict HAP-related emissions requirements, sources will most likely need to rely on technologies (broadly construed) that are capable of reducing both HAP *and* PSD pollutants, thus creating the technical potential to achieve even greater PSD emissions reductions than would be required under the PSD program alone. For example, a given level of control might be considered not cost-effective under PSD analysis alone, but may be entirely feasible when considered in the light of the case-by-case MACT requirements. That is, the level of emissions control that represents the "greatest reduction achievable" for purposes of the PSD program is likely to be directly affected by emissions control measures that are required as a practical matter as a result of case-by-case MACT review.

Nor is it sufficient to to assume that later-adopted MACT emission limits can simply supersede the earlier PSD limits. Because MACT does not incorporate or require a broad review of the achievability of additional PSD pollutant reductions in light of the MACT-required technologies, the MACT process in isolation will be insufficient to ensure that the appropriate level of PSD pollutant control will be required.

At best, FDEP's decision to perform the MACT and PSD analyses in isolation might allow cross-pollination to occur in only one direction (the PSD analysis might affect the MACT determinations but not vice versa). This approach is unlawful because MACT is set based on specific statutory

requirements, as described above, not on the basis of a preexisting BACT analysis or previously adopted PSD permit limits.

The only way to ensure that both MACT- and PSD-related factors have been fully accounted for is to conduct the two analyses in tandem. The Board must remand the permit to FDEP to cure this deficiency.

4. FDEP Can Not Rescue This Permit by Promising to Reopen the Permit Later

The public notice opportunity in the MACT determination process will not resolve the agency's failure to perform necessary analysis in the PSD permitting process. Nor can a comment opportunity in an entirely different regulatory exercise cure FDEP's failure to provide the public with an adequate understanding of the basis for its decisionmaking *here.* FDEP has an independent obligation to complete *this* regulatory action in a rational and reasonable manner, and cannot rely on its ability to potentially reopen the permit later as an excuse to shirk that responsibility. FDEP must adequately justify and explain *this* permit decision on its own terms, on the record *now*, not later when another analysis proves that it is substantively flawed.

Aside from depriving the public of the ability to meaningfully comment on the agency's current PSD-related decisionmaking, FDEP's failure to perform any real evaluation of MACT, or the interaction between MACT and PSD, has denied the permit decisionmaker access to information that is necessary for a reasoned and well informed decision. For that reason alone, FDEP itself should be seeking, in the wake of *New Jersey v. EPA,* to supplement the record for this

permitting action, revisit the technical analysis, and provide a supplemental comment period.

In sum, because FDEP has failed to provide the public (and the relevant agency decisionmaker) with critical information necessary to identify the appropriate level of control for PSD pollutants, and denied the public a meaningful opportunity to consider and comment on the agency's analysis of the potential interactions between MACT and PSD in this instance (which it has yet to even conduct), at minimum the Board should remand the permit to with instructions to provide an adequate explanation of its decision and allow the public an opportunity to comment on both the agency's decision and its underlying technical rationale.

E. Policy Considerations Counsel In Favor of Conducting the MACT and BACT Analyses in Tandem

FDEP's refusal to coordinate MACT and PSD review cannot be understood as furthering a legitimate interest in avoiding some unreasonable prejudice to the permit applicant. Seminole may not begin construction unless and until it obtains a final and effective MACT determination consistent with applicable regulations. *See* 40 C.F.R. § 63.42-43 (providing that construction may not begin until a source has a final and effective MACT determination); 62-204.800(11)(d)2 F.A.C. Indeed, it would be unwise for Seminole to make any irrevocable commitments of resources prior to the MACT analysis, as it will not have a full understanding of the applicable emissions limitations and necessary emissions controls, process technologies, and other design and operational parameters until that regulatory process reaches completion. Accordingly, a

remand directing FDEP to conduct the PSD and MACT evaluations in concert would not materially prejudice the applicant.

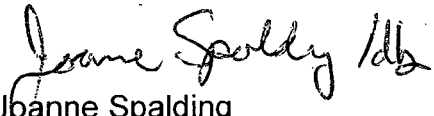
For the reasons given, FDEP's permit decision is based on clear errors of fact and law. To remedy these deficiencies, FDEP must conduct an additional assessment, provide the public an opportunity to comment, and re-issue the Final Permit only when and if it the Applicant has adequately demonstrated that it will comply with emission limits that fully and appropriately account for the combined obligations of both MACT and PSD. Accordingly, the Board must remand the PSD permit to FDEP with instructions conduct co-extensive MACT and PSD assessments that meaningfully and comprehensively account for all material interactions between the two programs.

CONCLUSION

For the foregoing reasons the Board should review and remand the Seminole PSD Permit to FDEP.

Dated: October 6, 2008

Respectfully submitted,



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