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

IN THE MATTER OF:	)	PSD Appeal No. 07-01
CHRISTIAN COUNTY	)	
GENERATION, LLC	)	
	)	
	)	

PETITIONER'S REPLY BRIEF

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SUMMARY

This reply brief addresses the legal arguments raised by the U.S. EPA Office of General Counsel ("EPA"), the Illinois Environmental Protection Agency ("IEPA"), and Christian County LLC ("Permittee") in their responses to the Sierra Club's Petition for Review and Request for Oral Argument in the matter of Christian County Generation, LLC's application for a Prevention of Significant Deterioration ("PSD") permit.

Specifically, this brief responds to their arguments that Sierra Club waived its opportunity to raise the issue of a carbon dioxide (CO_2) Best Available Control Technology ("BACT") limit because the issue was reasonably ascertainable prior to the Supreme Court's ruling in *Massachusetts v. EPA*, 127 S.Ct. 1438 (2007), and that the Act's Section 821 regulations are "diminutive" regulations, and therefore not "regulations" as that term is used in Section 165.

The response to the first argument is simple: When the comment period closed for the draft Christian County PSD permit, EPA, IEPA and the D.C. Circuit Court, the only court to have ruled on the issue, were of the view that carbon dioxide is not a pollutant. Prior to the Supreme Court ruling – which occurred after the comment period closed – it was not reasonable ascertainable that the CO_2 BACT issue was a viable argument that would have received any attention from IEPA, EPA or any reviewing entity, including this Board.

The response to the second argument is similarly straightforward. Carbon dioxide has been *regulated* under the Clean Air Act since February 10, 1993, when the acid rain rules regulating carbon dioxide emissions that EPA had adopted the month before became mandatory obligations. 58 Fed. Reg. 3590 (Jan. 11, 1993).

The Supreme Court definitively declared carbon dioxide a *pollutant* under the Clean Air Act on April 2, 2007. Accordingly, carbon dioxide is a Clean Air Act *regulated pollutant*, and IEPA must include a carbon dioxide BACT limit in the Christian County PSD permit.

By this reply brief Sierra Club is also withdrawing its collateral impacts analysis claim. Based on the briefs submitted by EPA, IEPA and the Permittee, Sierra Club now concludes that the only reasonable interpretation of the Act is that it requires the setting of a BACT limit for carbon dioxide. Because BACT is required for "regulated" pollutants and the collateral impacts analysis is a process for considering "unregulated" pollutant impacts, carbon dioxide emissions must be subject to a BACT emission limit, and not considered as part of a collateral impacts analysis.

THE ISSUES ON APPEAL ARE PROPERLY BEFORE THE BOARD

The CO_2 BACT issue is properly before the Board. IEPA and the Permittee are correct that for at least five years Sierra Club has been petitioning and filing lawsuits seeking to compel EPA to recognize and utilize its authority to act to limit global warming emissions. For example, Sierra Club was one of the original parties that petitioned EPA to find carbon dioxide a pollutant and regulate it under Title II of the Act. However, EPA has repeatedly refused to recognize its authority, and as of the close of the public comment period for the Christian County PSD permit, the only court to consider this question had rejected such arguments. IEPA has followed EPA's lead and erroneously taken the position that it too lacks any authority to consider carbon dioxide in

its permitting decisions. *See e.g.* IEPA Response to Comments,[1] PSD Permit for Springfield, City Water Power and Light, Dallman 4, 70 (August 2006) ("Illinois law does not provide the Illinois EPA with the authority to directly address the emission of greenhouse gas emissions during permitting."). Against this backdrop, and even though the controlling statutory and regulatory law had not changed since 1993 when EPA adopted the Section 821 regulations, it was reasonable for Sierra Club to not raise the carbon dioxide BACT issue in this (or any other permit proceeding) until the Supreme Court resolved the issues in its favor. In its permit comments Sierra Club did raise four legal arguments regarding carbon dioxide based on the prevailing case law in effect at that time, *i.e.* that carbon dioxide was not a Clean Air Act pollutant.

The Supreme Court's April 2, 2007 finding that carbon dioxide is a Clean Air Act pollutant fundamentally alters the treatment of carbon dioxide under the Act. Carbon dioxide moves from being a regulated *substance*, under EPA's interpretation that prevailed before *Massachusetts*, to a regulated *pollutant* in the wake of the holding that, as a matter of law, carbon dioxide is a pollutant. 127 S.Ct. at 1460. This change in the legal regime governing carbon dioxide after the close of the public comment period was the critical development that was not reasonably ascertainable during the public comment period. It therefore allows Sierra Club to now bring the question of a BACT emission limit for carbon dioxide before the Board.

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[1] Available at http://yosemite.epa.gov/r5/il_permt.nsf/f6a6e842b457fe2b86256ee80050d983/f997a517757940408525710b00430353/$FILE/ATTZR5G9/CWLP%20Response%20Summary.pdf (last visited Sept 7, 2007) (Responsiveness Summary for Public Questions and Comments on the Construction Permit Application from Springfield City, Water, Light and Power for Proposed Dallman 4).

Following the Supreme Court's decision, the Sierra Club has been raising this issue in subsequent permit proceedings. *See e.g. In re Deseret Power Electric Cooperative*, PSD Appeal 07-03, filed Oct. 1, 2007 ("Sierra Club contends that EPA erred by (a) not requiring ... a BACT emission limit for carbon dioxide [for a new coal-fired power plant].").

EPA also wrongly suggests that Sierra Club is making an untimely appeal of the agency's definition of a "regulated NSR pollutant" and is consequently time-barred by Section 307, 42 U.S.C. § 7607, *See* EPA Br. p.10. But the issue here is IEPA's decision (supported by EPA) in applying the Act and EPA's broad regulatory definition, to narrowly interpret the term "subject to regulation" to mean subject to "a substantive emissions standard." IEPA Br. p.27. This interpretation is not found in EPA's definition of "regulated NSR pollutant." Sierra Club does not challenge EPA's broad regulatory definition of "regulated NSR pollutant"; that definition simply parrots the expansive statutory language of Section 165 by including all pollutants "otherwise subject to regulation." Rather, Sierra Club challenges IEPA's (and EPA's) interpretation of the Act and EPA's regulation as somehow excluding Section 821 regulations from the definition of "regulation." The time limits in Section 307 have no bearing on this issue or this appeal.

THE CHRISTIAN COUNTY PERMIT SHOULD BE REMANDED BECAUSE IT LACKS A CARBON DIOXIDE BACT EMISSION LIMIT

1. A BACT Limit Is Required Under a Straightforward Reading of the Act

The substantive dispute can be reduced to one fundamental question: whether IEPA (on behalf of EPA) may avoid including in the Christian County PSD permit a

BACT emission limit for carbon dioxide? The answer is no, and the reasoning involves a straightforward reading of the Act.

The Clean Air Act prohibits the construction of a new major stationary source of air pollutants in areas designated as in attainment with the National Ambient Air Quality Standards except in conformance with a PSD construction permit. 42 U.S.C. § 7475(a). This section of the Act further requires that a PSD permit must 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).

In 1990 Congress added Section 821(a) to the Act (42 U.S.C. § 7651k note; Pub. L. 101-549, 104 Stat. 2699). That provision states, in relevant part:

> 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 the Title V of the Clean Air Act shall also monitor carbon dioxide emissions according to the same timetable as in Section 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 provisions applies to the monitoring and data referred to in Section 511.[2]

Approximately 14 years after EPA adopted its Section 821 regulations[3] to regulate carbon dioxide emissions, the Supreme Court on April 2, 2007 held that carbon dioxide and other global warming gases are "pollutants" under the plain language of the Act. *Massachusetts v. EPA*, 127 S.Ct. at 1460.

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[2] 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.

[3] EPA's §821 regulations, which were finalized on January 11, 1993, require CO_2 emissions monitoring (40 CFR §§75.1(b), 75.10(a)(3)); preparing and maintaining monitoring plans (40 CFR §75.33); maintaining records (40 CFR §75.57); and reporting such information to EPA (40 CFR §§75.60–64). 40 CFR §75.5 prohibits operation in violation of these requirements and provides that a violation of any Part 75 requirement is a violation of the Act.

The conclusion from this sequence of events could not be more straightforward. Two decades ago, Congress ordered in Section 165(a) that BACT be required for each pollutant "subject to regulation." Thirteen years later, in Section 821(a), Congress ordered EPA to establish rules regulating carbon dioxide. The only reasonable reading of these two statutory mandates in harmony is that a BACT emission limit is required for carbon dioxide.

2. EPA's Interpretation of Section 165 Is Wrong and Entitled To No Deference

EPA (and IEPA) takes the position that the term "regulation" in Section 165 does not include the Section 821 regulations.[4] EPA Br. p.4. Instead, it asserts that in Section 165 Congress intended "regulation" to mean "a statutory or regulatory provision that requires actual control of emissions." EPA Br. p.4. EPA, however, does not offer any plausible basis for its interpretation of the word "regulation," and the rationale it uses to defend its position is fundamentally flawed.

i. The Section 821 Information Gathering and Reporting Requirements are Regulations.

First, EPA is urging the Board to ignore the plain meaning of the word "regulation." Under the most basic canon of statutory interpretation, words should be given their plain meaning. Webster's Dictionary defines "regulation" as (a) "an authoritative rule dealing with details or procedure; (b) a rule or order issued by an executive authority or regulatory agency of a government and having the force of law." *See* Merriam-Webster Online, at http://mw1.merriam-webster.com/dictionary/regulation (last visited October 5, 2007). EPA does not dispute that the Section 821 rules are authoritative rules dealing with details and procedures or that they have the force of law.

[4] The Permittee does not address this issue.

Nor could the agency advance such an argument. Rules on information gathering, record-keeping, and data publication have long been recognized as falling within the conventional understanding of the word "regulation." *Buckley v. Valeo*, 424 U.S. 1, 66-67 (1976) (record-keeping and reporting requirements constitute regulation of political speech).

Second, IEPA's attempt to discredit the significance of information-forcing regulations, such as Section 821 regulations, as "diminutive" regulations is facially incorrect. IEPA Br. p.27. Information gathering and reporting regulations have long been effective tools in the United States' history of addressing air pollution and pollution generally. The Toxic Release Inventory ("TRI"), for example, is widely considered one of the most successful and effective programs in EPA's history. The simple information disclosure regulations of the TRI have independently led to dramatic reductions in pollution levels across multiple media from sources that are forced to monitor and report their emissions. *See, e.g.*, Frances M. Lynn et al., *The Toxics Release Inventory: Environmental Democracy in Action* 5 (1992) (report prepared for EPA Office of Toxic Substances).

More generally, information gathering and reporting regulations are some of the most successful and frequently applied regulations in the history of administrative law, and date back to the early railroad industry "sunshine commissions" of the mid-nineteenth century. Other examples abound, including at the Securities and Exchange Commission which relies almost entirely on information gathering and reporting regulations to accomplish its mandates. *See generally*, Thomas K. McGraw, *Prophets of*

Regulation: Charles Francis Adams, Louis D. Brandeis, James M. Landis, Alfred E. Kahn (Harvard University Press, 1986).

The Section 821 regulation requires detailed monitoring, record-keeping, and reporting requirements under the acid rain program. That Section 821 regulates carbon dioxide and is a "regulation" should be the end of the matter: "It is well established that 'when the statute's language is plain, the sole function of the courts--at least where the disposition required by the text is not absurd--is to enforce it according to its terms.'" *Lamie v. United States Tr.*, 540 U.S. 526, 534 (2004).

ii. The term "subject to regulation" is not ambiguous.

EPA fails to point to any ambiguity in the Act that would give it authority to deviate from the plain meaning of "regulation." Absent ambiguity, the Board must interpret the Act according to its plain language: "If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress." *Chevron v. NRDC*, 467 U.S. 837, 842-43 (1984).

To the extent that EPA tries to claim that it is interpreting its own regulation, as opposed to the statutory mandate, it fares no better:

> [T]he existence of a parroting regulation does not change the fact that the question here is . . . the meaning of the statute. An agency does not acquire special authority to interpret its own words when, instead of using its expertise and experience to formulate a regulation, it has elected merely to paraphrase the statutory language.

Gonzales v. Oregon, 546 U.S. 243, 257 (2006). Moreover, Congress used the same term "regulation" in section 165 and 821 and "generally, 'identical words used in different parts of the same statute are . . . presumed to have the same meaning.'" *Merrill Lynch,*

Pierce, Fenner & Smith, Inc. v. Dabit, 547 U.S. 71, 86 (2006) (*quoting IBP, Inc. v. Alvarez*, 546 U.S. 21, 34 (2005).).

Finally, IEPA (but not EPA), in a puzzling move, raises the lack of an EPA "endangerment" finding as somehow relevant to whether a carbon dioxide BACT emission limit is required. IEPA Br. p.10. Unlike in Title II, the phrase, "reasonably anticipated to endanger public health or welfare," does not occur in the text of Section 165. The Board can swiftly reject this argument.

iii. Congress Established Different Terms for "Actual Control of Emissions"

If Congress intended the PSD program to be limited to pollutants for which the Act established "actual control of emissions," as EPA and IEPA assert, then it would have used one of the terms it uses elsewhere in the Act for this specific purpose. Specifically, Congress stated that the "terms 'emission limitation' and 'emission standard' mean a requirement established by the State or the Administrator *which limits the quantity, rate or concentration of emissions of air pollutants* . . . ." 42 U.S.C. § 7602(k) (emphasis added). Congress then used the terms "emission limitation" and "emission standard" throughout the Act when it intended to limit actual emissions. *See, e.g.*, 42 U.S.C. § 7651d(a)(1) ("Each utility unit subject to an annual sulfur dioxide tonnage emission limitation under this section . . . ."); 42 U.S.C. § 7521(f)(2) ("This percentage reduction shall be determined by comparing any proposed high altitude emission standards to high altitude emissions . . . ."); 42 U.S.C. § 7617(a)(7) ("any aircraft emission standard under section 7571 of this title.") Thus, if Congress had wanted to limit the PSD program to pollutants that were subject to "actual control of

emission," it certainly knew how to do so. The fact that it did not do so in Section 165 reveals that Congress had no such intention.

iv. Congress Has Exempted Certain Pollutants – But Not Carbon Dioxide – From the PSD Program.

As part of the 1990 Amendments, Congress adopted new regulations for carbon dioxide in Section 821 and a long list of hazardous air pollutants in Section 112. However, at the same time that it established a broad exemption for hazardous air pollutants from the PSD program, Congress did not establish a similar exemption for carbon dioxide. *See* Clean Air Act Section 112(b)(6) (codified at 42 USC 7412(b)(6)). Congress' action underscores that it did not intend to narrow the definition of "pollutant subject to regulation" beyond the newly-created exclusion for hazardous air pollutants.

3. *Alabama Power Co. v. Costle* Forecloses EPA's and IEPA's Attempts to Redefine the Meaning of "Regulation."

In *Alabama Power v. Costle*, the D.C. Circuit held that Section 165 "applies PSD and BACT immediately to *each type of pollutant regulated for any purpose under any provision of the Act* . . ." 636 F.2d 323, 403 (D.C. Cir. 1979) (emphasis added). The court went on to explain that the language in Section 165 is unambiguous and thereby deprived EPA of the ability to deviate from the unambiguous statutory language:

> [W]e review two regulations of EPA that define which pollutants are subject to PSD and BACT review. One regulation exempts from PSD and BACT each pollutant not emitted in sufficient amounts . . . . The other *applies PSD and BACT immediately to each type of pollutant regulated for any purpose under any provision of the Act* . . . . and [we] affirm on the second.
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> . . . .
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> The . . . *language in the above sections would not seem readily susceptible to misinterpretation.* In each instance, any source that qualifies with regard to any applicable pollutant as a "major emitting facility" under the statute's definition of such a source, is subject to "any . . . applicable emission standard" or "standard of performance" under the Act, and to

> pollution controls for "any pollutant in any (geographic) area" subject to PSD and for "each pollutant subject to regulation" under the Act. The only administrative task apparently reserved to the Agency . . . is to identify those . . . pollutants subject to regulation under the Act which are thereby comprehended by the statute. The language of the Act does not limit the applicability of PSD only to one or several of the pollutants regulated under the Act.
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> ....
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> [T]he plain language of section 165 . . . . in a litany of repetition, provides without qualification that each of its major substantive provisions shall be effective after 7 August 1977 with regard to each pollutant subject to regulation under the Act, or with regard to any "applicable emission standard or standard of performance under" the Act. As if to make the point even more clear, the definition of BACT itself in section 169 applies to each such pollutant. *The statutory language leaves no room for limiting the phrase "each pollutant subject to regulation"* . . . .

636 F.2d at 403, 404, 406 (emphasis added).

Under *Alabama Power*, EPA's "administrative task" is limited to reading through the Act and identifying the pollutants regulated "for any purpose." 636 F.2d at 404. The case leaves no discretion for EPA to limit the scope of pollutants subject to the PSD program and exclude carbon dioxide from the list of "regulated" pollutants. Under *Chevron*, once a court determines that statutory language is unambiguous, EPA cannot attempt to redefine the language to mean something wholly different. 467 U.S. at 842-43.

The Permittee cites to *Alabama Power* for the proposition that PSD applies to pollutants "already regulated." Permittee Br. p.15. Because carbon dioxide is already regulated under the Act's Section 821 regulations, Sierra Club agrees with the Permittee on this point. The Permittee's brief does not, however, discuss the Section 821 rules.

4. The Cited EAB Cases Do Not Support EPA's Position

EPA cites three cases to support its argument that the Board has already ruled that carbon dioxide is not a regulated pollutant. However, these cases provide no support for its argument. EPA cites *Knauf Fiber Glass*, 8 E.A.D. 121, 163-64 (EAB 1999), in support of its position that the carbon dioxide regulations of Section 821 are something less than actual regulations because they do not involve strict emissions limits. EPA Br. p.4. But *Knauf* stands for nothing more than the unremarkable proposition that odor and "respirable glass fibers" are unregulated pollutants and that petitioners had failed to demonstrate otherwise. 8 E.A.D. at 163 n.57. *Knauf* does not speak to the issue of how to define a regulated pollutant or change the fact that carbon dioxide is regulated under Section 821 of the Act.

The two other cases on which EPA relies, *Kawaihae Cogeneration Project* and *Inter-Power of New York,* are similarly inapplicable and irrelevant. *See* EPA Br. p.3. In *Kawaihae Cogeneration Project*, the petitioners did not argue that carbon dioxide is regulated under the Act or that the PSD permit should have included a carbon dioxide BACT emission limit. 7 E.A.D. 107 (EAB 1997). Not surprisingly, the Board does not reach the merits of carbon dioxide regulation in that decision. *Id.* at 132. In *Inter-Power of New York*, the petitioners filed their petition on November 25, 1992[5], *i.e.*, three months before EPA adopted the Section 821 acid rain monitoring rules regulating carbon dioxide emissions. 5 E.A.D. 130, 151 (EAB 1994). *See* 58 Fed. Reg. 3701 (Jan. 11, 1993) Final Rules, Acid Rain Program: General Provisions and Permits, Allowance System, Continuous Emissions Monitoring, Excess Emissions and Administrative Appeals.

[5] This is the date listed on the Board's website for this case. *See* http://yosemite.epa.gov/OA/EAB_WEB_Docket.nsf/ce9f7f898b59eae28525707a00631c97/f9c5cd8dfbac39bb852570690005f7e56!OpenDocument (last visited on Sept. 30, 2007).

Thus the Board was correct in its *Inter-Power* decision that carbon dioxide was not a regulated pollutant at the time the Inter-Power PSD permit was issued.

5. EPA Has Created a Broad Regulatory Definition of "Any Pollutant Subject To Regulation" That Includes All Pollutants Subject To Any Regulation.

To the extent that EPA's position deserves any deference, that deference should be given to the position articulated in EPA's rules, which, unlike the one guidance document that EPA, IEPA and Permittee reference, have been subject to notice and comment procedures. Throughout the past thirty years, EPA's PSD regulations have used language describing the pollutants covered by this program as expansively as the Act's language in Section 165. In an attempt to defeat the Act's and PSD regulations' expansive language EPA (and IEPA) point to the preamble to the 2002 PSD regulations and a single guidance document that emerged in the wake of the Act's 1990 Amendments, the Wegman Memo.

In 2002, the agency amended its interpretation of the phrase "subject to regulation under the Act" to exclude hazardous air pollutants consistent with Congress' command twelve years earlier. EPA substituted the phrase "regulated NSR pollutant" for "any pollutant subject to regulation under the Act" and provided a regulatory definition of the new term. The regulations explicitly excluded hazardous air pollutants. At the same time, EPA listed, in a non-exclusive form, some of the pollutants covered by the PSD program:

> The 1990 Amendments to the CAA . . . exempted [hazardous air pollutants] . . . from the PSD requirements in part C. In our 1996 Federal Register Notice, we proposed changes to the regulations . . . to implement this exemption . . . *Pollutants regulated under the Act and not on the list of HAP, such as fluorides, TRS compounds, and sulfuric acid mist, continue to be regulated under PSD.* . . . [T]oday we are taking final action to promulgate these provisions.

67 Fed. Reg. 80239-40 (2002) (emphasis added).

EPA points to the absence of carbon dioxide on this list as evidence that the agency has a long-standing position that carbon dioxide is not a PSD-regulated pollutant. Yet EPA's failure to include carbon dioxide on this list is unsurprising. While it is true that in 2002 carbon dioxide had already been *regulated* under Section 821 for nine years, EPA at that time did not consider carbon dioxide to be a *pollutant*, as it subsequently made clear in its *Massachusetts v. EPA* arguments and public comments. *See* 68 Fed. Reg. 52922, 52926 (2003). Moreover, the preamble list begins with a term that is non-exclusive, "such as." *See, e.g., Rust v. Sullivan*, 500 U.S. 173, 181 (1991); 17 U.S.C.A. § 101 (the term "such as" is "illustrative and not limitative").

The Wegman Memo cannot withstand any scrutiny after the Supreme Court's ruling. In 1993, shortly after the agency adopted Section 821 regulations, an EPA official issued a memo concluding that carbon dioxide is not a pollutant for purposes of the Act's Title V program. *See* Lydia N. Wegman, Definition of Regulated Air Pollutant for Purposes of Title V, Memo to Air Division Director, Regions I-X, p.4 (April 26, 1993); EPA Br. p.4; IEPA Br. p.24. The Wegman Memo makes two points, that carbon dioxide is not a pollutant and that the term "subject to regulation" means something more than the requirements of Section 821. EPA concedes that Wegman's conclusion that carbon dioxide is not a pollutant has been rejected by the Supreme Court. EPA Br. p.7 n.5 ("the *Massachusetts v. EPA* decision adopted a broader definition of 'air pollutant' than used in the Wegman Memorandum"). The rest of the memo should be similarly rejected for two reasons. First, on its face it is inapplicable because it refers to Title V, not the PSD program. Second, and more importantly, it contradicts the plain language of the Act and

the PSD regulations, and its attempt to narrowly define the expansive term "regulation" is foreclosed by *Alabama Power*, 636 F.2d 323.

6. The Illinois SIP Also Regulates Carbon Dioxide By Limiting Emissions.

Carbon dioxide is also "subject to regulation" under the Illinois State Implementation Plan ("SIP") because the SIP prohibits "air pollution." The term "air pollutant" is defined to mean "the presence in the atmosphere of one or more air contaminants in sufficient quantities and of such characteristics and duration as to be injurious to human, plant, or animal life, to health, or to property, or to unreasonably interfere with the enjoyment of life or property." 35 Ill. Admin. Code § 201.102.

EPA responded that "IEPA has never and does not now interpret the [nuisance provision] in its SIP to regulate CO_2 emission." EPA Br. at p.8. EPA additionally cites to the 1972 rulemaking in which it added the nuisance provision into the SIP to assert that there is no indication "that EPA read the provision broadly to regulate CO_2 emissions." EPA Br. at p.8. Those arguments lack merit. The class of pollutants covered by this provision is extremely broad, and IEPA concedes that "CO_2 would seem to fall within the meaning of the term "air pollutant'" as that term is used in this provision. *See* IEPA Response to Comments at p.10.

The only remaining question – which neither IEPA nor EPA answers – is whether a source of carbon dioxide could cause "air pollution" as that term is defined in the SIP. The answer is clearly yes. First, the source need not cause the air pollution alone; it is sufficient that the emissions are "in combination with other sources." 35 Ill. Admin. Code § 201.102. A large source of carbon dioxide, in combination with other carbon dioxide sources, could cause "air pollution" because it contributes to global warming.

The IPCC reports, referenced in the Sierra Club's permit comments, document the threats to humans, plants and animals posed by global warming.

Thus, carbon dioxide emissions are regulated under the Illinois SIP nuisance provision when they are emitted in sufficient quantities, alone or in combination with other sources, so as to cause global warming. This limit on carbon dioxide under the Illinois SIP nuisance provision constitutes regulation under the Act and triggers the obligation to conduct a BACT emission limit for carbon dioxide.

7. The BACT Process Is Well Suited To Address Carbon Dioxide

Neither EPA nor IEPA offers any reasoned explanation why a carbon dioxide BACT emission limit cannot be established for the proposed project. IEPA does argue that such an analysis is fraught with policy concerns about energy and economic issues. But the appropriate way to handle these concerns is not to avoid the agency's legal obligation to issue a BACT emission limit for carbon dioxide, but to consider concerns about economic and energy issues within the framework of a BACT analysis. The Act's BACT analysis is well-suited for precisely such an analysis. Such analysis, in combination with a meaningful public participation process, provides a robust and thorough process for establishing reasonable carbon dioxide BACT emission limits for new and modified stationary sources.

There are at least four readily-available options for limiting a facility's carbon dioxide emissions that could and should be considered in a top-down BACT analysis. These options include: 1) setting output-based standards, 2) using clean fuels, *e.g.* biomass and natural gas, 3) requiring combined heat and power, and 4) mandating carbon

capture and sequestration. Each of these options has been put forward by EPA and/or IEPA as recognized measures to limit carbon dioxide emissions.

i. Output-Based Standards

In the 1995 preamble to the draft New Source Performance Standards for Electric Steam Generating Units EPA explained that it was proposing to adopt output-based standards as a simple measure to promote efficient generation and reduce fuel use: "By relating emission limitations to the productive output of the process, output-based emission limits encourage energy efficiency because any increase overall energy efficiency results in a lower emission rate. ... The use of more efficient technologies reduces fossil fuel use and leads to multi-media reduction in environmental impacts both on-site and off-site." 70 Fed. Reg. 9706, 9713 (Feb. 28, 2005).

ii. Clean Fuels

Consistent with the statutory definition of BACT and the long-standing practice of the agency, a top-down BACT determination must include consideration of "clean fuels." 42 U.S.C. § 7479(3). For a power plant this may include the use of natural gas, landfill gas, biomass, fuel oil, or a combination of any of these with coal, as various methods to reduce carbon dioxide emissions. The Department of Energy's website notes that in 2002 there was about 9,733 megawatts of installed biomass capacity in the United States, the largest source of non-hydro renewable electricity. The sources of biomass included forest products and agricultural residues and were fired using either gasification, direct firing or co-firing.[6]

[6] http://www1.eere.energy.gov/biomass/electrical_power.html (last visited Oct. 8, 2007).

iii. Combined Heat and Power

EPA has an entire website dedicated to promoting the benefits of combined heat and power because, as EPA explains, "[combined heat and power] reduces the emission of greenhouse gases, which contribute to global climate change." www.epa.gov/chp (last visited Oct. 8, 2007). Similarly, the Illinois Climate Change Advisory Committee, a stakeholder group appointed by Illinois Governor Blagojevich earlier this year, concluded that "CHP units ultimately result in [greenhouse gas] reductions from increased efficiency for heat and steam while also displacing grid electricity" and can be a valuable tool to combat global warming emissions.[7]

iv. Carbon Capture and Sequestration

Earlier this year EPA Region IX directed the federal Bureau of Land Management as part of an Environmental Impact Statement to "discuss carbon capture and sequestration and other means of capturing and storing carbon dioxide as a component of the proposed alternatives." Ltr. from Nora Blazej, Mgr, Environmental Review Officer, EPA Region IX to Jeffrey Weeks, BLM, p.14 (June 22, 2007). EPA's determination that it is appropriate for BLM to consider carbon capture and sequestration and other means of carbon dioxide storage at a Nevada coal plant is a reasonable indication it could be considered by IEPA (as EPA's delegate) in the PSD top-down BACT process for the Christian County coal plant in Illinois too.

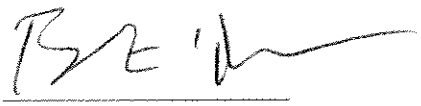
In sum, there are at least four well-established methods condoned by either EPA or IEPA, or both, for reducing carbon dioxide emissions from coal-fired power plants that could have been considered in setting a BACT emission limit for carbon dioxide in the

[7] http://www.epa.state.il.us/air/climatechange/documents/subgroups/cia/standards-for-commercial-industrial-boilers.pdf (last visited Oct. 8, 2007).

Christian County PSD permit. IEPA's failure to consider these methods and to include a BACT emission limit for carbon dioxide in the PSD permit constituted clear legal error and represents a significant policy issue that this Board should review.

CONCLUSION

For these reasons, Sierra Club urges the Board to remand the Christian County PSD permit with instructions to IEPA to establish a BACT emission limit for carbon dioxide.



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