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Hand Delivery Via Federal Express

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

Re: Northern Michigan University
PSD Appeal No. 08-02
PSD Permit Number: 60-07 (Michigan)

Dear Ms. Durr:

Enclosed for filing is an original of Sierra Club's Reply to Intervenor Northern Michigan University's Brief in Response to Petition in the above-referenced PSD permit. A copy is also being filed electronically, and copies are being served on attorneys Gordon, Finto, and Rubin.

If you have any questions about this filing or if I can be of any further assistance please call me at 608-256-1003.

Sincerely,
GARVEY MCNEIL & MCGILLIVRAY, S.C.

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

IN THE MATTER OF: NORTHERN MICHIGAN UNIVERSITY	)	APPEAL NUMBER: PSD 08-02
	)	PSD PERMIT NUMBER: 60-07

SIERRA CLUB'S REPLY TO INTERVENOR NORTHERN MICHIGAN UNIVERSITY'S BRIEF IN RESPONSE TO PETITION

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Introduction

After waiting to intervene in this case until after briefing was completed, Northern Michigan University ("NMU") filed a Response Brief ("NMU Br.") that cites the record only twice and largely relies on briefs filed by NMU's counsel on behalf of the coal industry in other cases. Although heavy on hyperbole, the Response fails to identify anywhere in the record where Michigan Department of Environmental Quality ("MDEQ") made the analysis that the Petition demonstrates is lacking. (*See e.g.*, Pet. at 23, 29-30 (lack of evidence that wood fuel is unavailable), 45, 49-50 (lack of evidence that existing air quality data is representative).) The legal authorities cited by NMU are largely inapposite and the legal arguments made are largely repackaged versions of those rejected by the United States Supreme Court in *Massachusetts v. EPA*. NMU's Response is unconvincing and cannot rescue the deficient permit. The Board should remand the permit to MDEQ.

I. THE BACT LIMITS ARE INSUFFICIENT AND INVALID AS A MATTER OF LAW.

A. NMU Improperly Relies On Outdated Guidance and An Inapplicable Regulation To Avoid The Clean Air Act's Obligation To Obtain a $PM_{2.5}$ BACT Limit.

In its Response, NMU argues that MDEQ's decision not to conduct a BACT analysis for $PM_{2.5}$ is sufficient "[a]s a matter of law," but cites no such law. (NMU Br. at 3.) Additionally, NMU repeats MDEQ's arguments that guidance memos from Environmental Protection Agency ("EPA") employees sanction MDEQ's decision not to

conduct a top-down BACT analysis for $PM_{2.5}$ and, instead, substitute BACT for PM_{10} as a "surrogate." (NMU Br. at 4.) These arguments lack merit.

As set forth in the Petition, PM (or PM_{10}) and $PM_{2.5}$ are not equivalents for three main reasons: (1) $PM_{2.5}$ contains a larger condensable fraction; (2) controls for PM_{10} are not necessarily controls for $PM_{2.5}$; and (3) the particular fabric filter bags proposed for the NMU boiler are not as effective at controlling $PM_{2.5}$ as for PM_{10}. (Pet. at 10-11, citing *In re So. Montana Elec. Generation and Transmission Coop., Highwood Generating Station*, Slip. Op. at 9, 25-30 (Mont.Bd.Envtl.Rev. May 30, 2008)); (Pet. Ex. 2.)

Noticeably absent from either memo cited by NMU, or NMU's brief, is a convincing analysis for why PM_{10} is a meaningful surrogate for $PM_{2.5}$. PM_{10} and $PM_{2.5}$ are simply not the same. EPA promulgated a new National Ambient Air Quality Standard ("NAAQS") for $PM_{2.5}$ in 1997 based on its finding that then-existing PM_{10} standards *did not adequately protect public health and welfare. See, e.g.*, 62 Fed. Reg. 38,653, 38,667 (July 18, 1997). EPA also found that $PM_{2.5}$ tends to be generated by different types of sources than PM_{10}, is produced in greater amounts from secondary chemical reactions than is PM_{10}, is transported longer distances than PM_{10}, and, perhaps most importantly, penetrates deeper into peoples' cardio-vascular systems than PM_{10}—resulting in greater risks of respiratory disease, cardiopulmonary disease, and premature death. *Id.*; *see also* 70 Fed. Reg. 65,984, 65,992 (Nov. 1, 2005)(explaining that PM2.5 and PM10 are associated with "distinctly different source types and formation processes"), 71 Fed. Reg. 2620, 2627 (Jan. 17, 2006). With this backdrop of regulatory findings by EPA showing the stark differences between $PM_{2.5}$ and PM_{10}, and nothing in

either the Page or Seitz memo, nor in the NMU brief to refute them, it is arbitrary to substitute PM_{10} for $PM_{2.5}$ when establishing BACT limits.

The flaw in equating PM_{10} and $PM_{2.5}$ is especially apparent in the permit at issue here because the PM_{10} limit excludes the vast majority of $PM_{2.5}$. The PM_{10} BACT limit in the NMU permit is for filterable fraction PM_{10} only, whereas almost 80% of $PM_{2.5}$ is comprised of condensable and secondary emissions—meaning most $PM_{2.5}$ is completely unaccounted for in the NMU permit's PM_{10} limit. 70 Fed. Reg. at 66,051 (noting that condensable particulates comprise more than 78% of total PM2.5 emissions); (Pet. Ex. 1 (Permit) at 6 (limiting only filterable PM)); (*see also* NMU Br. at 26 (arguing that the applicable test is Method 5).)

Additionally, to the extent that claimed technical impracticalities once justified the use of PM_{10} in the place of $PM_{2.5}$ analysis, such justification never applied to BACT limits and no longer applies to other PSD requirements. The Seitz memo was premised on the "lack of necessary tools to calculate emission of $PM_{2.5}$" the technical inability to "project ambient air quality impacts" of $PM_{2.5}$. Seitz memo at 1. At the time the memo was drafted—1997—EPA needed to develop an additional modeling system and "collect sufficient monitoring data to verify and validate protocol modeling results." *Id.* at 2. The Page memo adds no other basis for delaying $PM_{2.5}$ implementation. Notably, the "technical difficulties" serving as the basis for the memos relate only to monitoring and modeling, not to BACT. *See* Page Memo at 4 (identifying "limitations on ambient monitoring and modeling capabilities" as the technical difficulties). The memos provide no basis for delaying a top-down analysis for $PM_{2.5}$ BACT. In fact, MDEQ claims in its Response to have *attempted* a BACT analysis, albeit a deficient one that did not follow

the minimum standards required by this Board. (MDEQ Br. at 5-6 ("... MDEQ... determined that a baghouse and an emission limit of 0.030 lb/MMBtu satisfied BACT for PM-10. Pursuant to the surrogate approach contained in the EPA guidance, the MDEQ also concluded that a 0.30 [sic] lb/MMBtu met BACT for PM-2.5.")); (MDEQ Br. at 6 (describing how MDEQ looked at other processes in the EPA's RBLC that listed a baghouse as BACT-level control option for PM2.5, but that MDEQ determined the appropriate limit by using PM10 as a surrogate)); U.S. EPA, *New Source Review Workshop Manual* at B.4 (Draft 1990) ("Individual BACT determinations are performed for each pollutant subject to PSD review...") ("NSR Manual"); *see also* 73 Fed. Reg. 28,321, 28,335 (May 16, 2008)(noting the different pollution controls for PM2.5 and PM10); 70 Fed. Reg. at 66051 (noting that PM2.5 emissions can be reduced by changing control device operating temperature). Further, other permitting agencies have determined that it is possible to establish BACT limits for $PM_{2.5}$, including condensable $PM_{2.5}$. *In re So. Montana Elec. Generation and Transmission Coop., Highwood Generating Station*, Case No. BER 2007-07 AQ, Slip Op. at 26 (Mont.Bd.Envtl.Rev. May 30, 2008) ("*Highwood*"), available at http://www.deq.mt.gov/ber/2008Agendas/SME/Order.pdf.

Moreover, the "impracticalities" that once prevented monitoring and modeling of $PM_{2.5}$ have now been resolved. 72 Fed. Reg. 54,112 (Sept. 21, 2007); *see also* 70 Fed. Reg. at 66,043 (recognizing that the "practical difficulties" identified in the Seitz memo "have been resolved in most respects."). Therefore, even if the EPA's guidance memos once excused permitting agencies of the obligation to conduct some PSD permitting determinations for $PM_{2.5}$, due to unresolved technical issues, there is no longer a practical

or legal basis for continuing to ignore $PM_{2.5}$ as a separate pollutant. In short, the guidance memos relied upon by NMU never justified substituting PM_{10} BACT for $PM_{2.5}$ and no longer justify delaying any other PSD permitting component.

Despite MDEQ's concession that the May 16, 2008 rulemaking regarding PM2.5 does not apply to this permit (MDEQ Br. at 8), NMU nevertheless argues that it does. (NMU Br. at 4-5.) According to NMU, the rule "explicitly *requires* the use of PM10 as a surrogate for PM2.5 for all complete applications submitted prior to July 15, 2008." (NMU Br. at 4-5, citing 73 Fed. Reg. at 28,321; 40 C.F.R. § 52.21(i)(1)(xi) (2008) (emphasis original).) NMU fails to recognize, however, that the MDEQ decision to issue the permit in this case occurred prior to the effective date of the rule. (MDEQ Br. at 6-7 (asserting that the permit issued prior to the May 16, 2008 rule).) The Board has previously held that regulatory changes that occur after the permit-issuing agency has issued a permit, and while the appeal is pending, are not applicable to the permit. *See In re Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490, 614-17 (EAB 2006) (collecting cases).

There is no question that $PM_{2.5}$ is a regulated pollutant, and that a $PM_{2.5}$ BACT limit is required. There is no question that MDEQ looked at the RBLC Database for pollution control devices listed for $PM_{2.5}$, but ultimately set the BACT emission rate for $PM_{2.5}$ based on the emissions of PM_{10} resulting from the use of a baghouse. This "surrogate" use of PM_{10} BACT for $PM_{2.5}$ BACT is unlawful and the permit should be remanded for a BACT analysis specific to $PM_{2.5}$.

B. NMU's Attempt to Avoid The Overwhelming Number of Ways in Which CO_2 is Regulated By Repeating Arguments Already Made In Other Cases Is Not Persuasive.

Consuming fifteen of only twenty-four pages of argument, NMU's counsel rehashes arguments they've made on behalf of coal companies and industrial interests in other cases pending before this Board. (NMU Br. at 5-20.) NMU argues that CO_2 is not subject to regulation under the Clean Air Act, even though it is subject to mandatory provisions in: (1) section 821 of Public Law 101-549, to which Clean Air Act Section 412(e) "shall apply"; (2) the regulations promulgated under the Clean Air Act in 40 C.F.R. part 75; (3) the regulations promulgated in 40 C.F.R. Part 71 and operating permits issued pursuant to Title V of the Clean Air Act; (4) regulations addressing landfill gases, including CO_2; and (5) various mandatory monitoring requirements and emission limits contained in state implementation plans adopted pursuant to Clean Air Act section 110—all of which enforceable through the administrative, civil, and criminal enforcement provisions of the Clean Air Act.[1] The extent of NMU's effort to pretend CO_2 is nevertheless unregulated exceeds the limits of credulity.

1. Regardless of Whether Section 821 is Part of the Clean Air Act, It Subjects CO_2 to Regulation Under The Act.

NMU's first argument to avoid BACT limits for CO_2 is that "Section 821 is not part of the CAA." (NMU Br. at 8.) NMU points to the fact that Section 821 does not, itself, state that it is part of the Clean Air Act. *(Id.)* NMU's counsel further cite their

[1] NMU argues that enforcement under the Act is not regulation under the Act. (NMU Br. at 15-16.) NMU provides no support for this argument but, instead, refers the Board to briefs filed in another case. (Id.) NMU's failure to support its position constitutes waiver. Moreover, Section 821 makes the CO2 monitoring and reporting regulations subject to Section 412(e). 42 U.S.C. § 7651k, Note. It does not merely "reference the CAA for enforcement purposes." (NMU Br. at 15.) Furthermore, because the CO_2 monitoring and reporting requirements must also be incorporated into Title V operating permits, 40 C.F.R. § 71.2, they are subject to the Clean Air Act beyond enforcement. (*See also* Reply to MDEQ at 8 (describing how MDEQ has included CO2 requirements in Title V permits).)

own brief filed in *In Re Deseret Power Electric Cooperative*, PSD Appeal No. 07-03, on behalf of the utility industry. (*Id.*) NMU misses the point. The question is not whether 821 is part of the Clean Air Act (although it certainly appears to be), but whether it makes CO_2 "subject to regulation under" the Clean Air Act. 42 U.S.C. § 7475(a)(4) (requiring BACT limits for "each pollutant subject to regulation under this chapter"). Because section 821 unquestionably makes CO_2 subject to regulation under the Act, BACT limits for CO_2 are required.

Section 821 clearly states that sources are required to monitor and report carbon dioxide emissions to the EPA and that section 412(e)[2] of Title IV 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 that section. 42 U.S.C. § 7651k, Note (emphasis added). Congress did not say that the monitoring and reporting required by section 821 could be enforced *in the same way that* other monitoring is enforced under the Act, that remedies under the Act are available for violations of section 821, or that a phantom regulatory scheme similar to the Clean Air Act is created to implement section 821. Rather, Congress said that the Clean Air Act, itself, "shall apply" to the CO_2 requirements in 821. *Id.* CO_2 is *subject to* the regulation of the Clean Air Act.

Moreover, there is no question that EPA has "applied" section 412(e), as well as the enforcement provisions in section 113, to CO_2 requirements by bringing enforcement action under the Clean Air Act. *See, e.g., In re City of Detroit, Dept. of Public Lighting, Mistersky Power Station*, Docket No. CAA-05-2004-0027, Consent Agreement and Final Order ¶ 7 (May 10, 2004) (finding that "[t]he Acid Rain Program requires, among other

[2] Section 821 refers to section 511 of Title V, but it is generally accepted that this was a mistake and that Congress intended to refer to section 412 of Title IV.

things, that the owner or operator of an affected unit monitor, record and report… carbon dioxide (CO2) emissions, volumetric flow and opacity data," that the respondent failed to comply, and assessing penalties) (attached as Ex. 13 to Reply to MDEQ); *In re Indiana Mun. Power Agency*, Docket No. CAA-05-2000-0016, Compl. ¶ 5 ("Pursuant to Section 412 and 821 of the Act, 42 U.S.C. §§ 7401-7671q, as amended by Public Law 101-549 (November, 1990) the Administrator established requirements for the monitoring, record keeping, and reporting of… carbon dioxide emissions… under the Acid Rain Program at 40 C.F.R. Part 75.") (attached as Ex. 14 to Reply to MDEQ); *see also id.* at ¶¶ 14-15, 34-37; *In Re Deseret Elec. Power Coop.*, PSD Appeal No. 07-03, Resp. of EPA Region 8 and Office of Air and Radiation to Bd.'s Request for Suppl. Briefing at 6, 11-18 (Aug. 8, 2008).[3]

Therefore, regardless of which way the Board decides on the nuanced issue of whether section 821 of the Clean Air Act Amendments of 1990, Pub. L. 101-549, is part of the Act, it is clear that Congress made section 412(e) of the Act "apply" to CO_2 and, therefore, that CO_2 is "subject to" the Act.

2. NMU Attempts to Create Confusion Through Irrelevant Congressional History and Measurement Requirements.

NMU's next argues that mandatory monitoring and reporting, enforceable through civil and criminal penalties, is not "regulation." (NMU Br. at 9-10.) This would be a surprise to the Supreme Court, which has repeatedly found that reporting to the federal government constitutes regulation of speech. *Buckley v. Am. Constitutional Law Found., Inc.*, 525 U.S. 182, 204 (1999) (holding that compelled reporting of ballot initiative

[3] Available at http://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/Filings%20By%20Appeal%20Number/D9A26313A85CABEE852574A2004F3525?OpenDocument.

petition circulators' names was impermissible regulation of speech and association rights); *Riley v. Nat'l Fed'n of the Blind, Inc.*, 487 U.S. 781, 798-99 (1988) (compelled reporting of professional fundraiser status is impermissible regulation of speech); *Buckley v. Valeo*, 424 U.S. 1, 66-68 (1976) (record keeping and reporting requirements are regulation of political speech). It would also come as a surprise to Congress, which has enacted complex regulatory schemes that rely on disclosure as the regulatory method. *See, e.g.*, 15 U.S.C. § 1601, *et seq*. (Truth in Lending Act requiring disclosure of interest rates for consumer transactions).

In support of its theory that mandatory monitoring and reporting is not regulation, NMU makes two arguments: (1) the circular logic that monitoring is not regulation because PSD does not apply to other parameters subject to monitoring, and (2) that selected legislative history suggests that section 821 was not intended to force reductions of CO_2. (NMU Br. at 9-10 and n.8.) Both arguments lack merit and should be rejected.

According to NMU, oxygen, moisture, and heat input are "monitored and measured" and, therefore monitoring and measuring is not regulation for purposes of 42 U.S.C. § 7475(a)(4) because there are no BACT limits for oxygen, moisture, and heat input. There are a number of problems with this argument, beyond its circular logic. First, heat input is not a "pollutant," so 42 U.S.C. § 7475(a)(4) does not apply. 42 U.S.C. § 7602(g) (defining air pollutants). Second, oxygen and moisture are not, themselves, measured, recorded, and reported pursuant to the regulations NMU cites. Rather, they are measured as part of the calibration of monitors for NOx and SO_2, which are the pollutants regulated by the regulations NMU cites. See 40 C.F.R. §§ 75.10(a)(1) ("*To determine NOx emissions*, the owner or operator shall install, certify, operate, and

maintain... a NOx-diluent gas monitoring system (consisting of a NOx pollutant concentration monitor and an O_2 or CO2 diluent gas monitor...") (emphasis added)), 75.11(b)(2) ("Where *SO_2 concentration* is measured on a dry basis, the owner or operator shall either... Install, operate, maintain and quality assure a continuous moisture monitoring system... in order to correct the measured hourly volumetric flow rates for moisture *when calculating SO_2 mass emissions*..." (emphasis added)), 75.12(b) ("If a correction for the stack gas moisture content is *need to properly calculate the NOx emission rate*... the owner or operator shall either... install, operate, maintain and quality assure a continuous moisture monitoring system..." (emphasis added)). Unlike CO_2, which is itself monitored and reported pursuant to Part 75, the moisture and oxygen measurements required by Part 75 are to calibrate and report the NOx and SO_2 emissions. NOx and SO_2 are the pollutants, like CO_2, regulated by the monitoring and reporting requirements in Part 75.

NMU also asks the Board to read too much into the legislative history of the Act. Citing several Congressional Committee reports that post-date the enactment of Section 821, NMU argues that Congress meant Section 821 as "no more than an information gathering provision." (NMU Br. at 9 n.8 (citing various reports of the 102nd, 103rd, 105th and 107th Congresses).) None of the statements cited by NMU say that BACT is not required for CO_2. More importantly, it would not matter much if they did. Post-enactment statements, such as those relied upon by NMU, are irrelevant to the meaning of Section 821. *Cont'l Can Co., Inc. v. Chicago Truck Drivers, Helpers and Warehouse Workers Union (Independent) Pension Fund*, 916 F.2d 1154, 1157 (7th Cir. 1990) ("statements after enactment do not count; the legislative history of a bill is valuable only

to the extent it shows genesis and evolution, making "subsequent legislative history" an oxymoron."). Additionally, that Congress considered other CO_2 requirements as part of the Clean Air Act Amendments of 1990, and in subsequent sessions, does not change the language of what Congress did enact in section 821 and in 42 U.S.C. § 7475(a)(4). Tellingly, NMU's arguments about what Congress could not have meant are the same arguments that failed in *Massachusetts v. EPA*; NMU just modified them from arguing that Congress did not intended for CO_2 to be a "pollutant" to Congress did not intend CO_2 to be "subject to regulation." *Massachusetts*, 127 S.Ct. 1438, 1460-61 (rejecting EPA's attempt to use post-enactment legislative history to argue that Congress could not have meant to regulate CO_2). The arguments are as unconvincing here as the Supreme Court found them to be in *Massachusetts*.

NMU's entire argument that Congress did not intended Section 821 to require more than monitoring and reporting of CO_2 emissions misses the point. The question is not whether Section 821, itself, was intended to force reductions, but whether it—together with Section 412 and other interlocking provisions—make CO_2 subject to regulation under the Act. Because they do, Congress' enactment of 42 U.S.C. § 7475(a)(4) requires BACT limits to temper increases in emissions based on available methods of reduction.

3. EPA Staff's Post Hoc Rationalization for Ignoring CO_2 Is Due No Deference By the Board.

NMU next argues that the Board should defer to an interpretation of the word "regulation" attributed by NMU to the staff of EPA. (NMU Br. at 10-12.) According to NMU, the EPA interprets "subject to regulation" to mean subject to "emission controls established pursuant to *other* CAA programs." (NMU Br. at 11.)[4]

The first problem with NMU's theory is that, until very recently, EPA staff did not consider CO_2 to be a "pollutant," so it did not address whether it was "subject to regulation." The so-called "Wegman Memo" purported to interpret Section 302(g), the "air pollutant" definition, to exclude CO_2. The Fabricant memo cited by NMU similarly relied on an interpretation of the term "air pollutant," to conclude that CO_2 was not covered by the Act. Theses memos' reasoning was soundly rejected by the Supreme Court. *Massachusetts v. EPA*, 127 S.Ct. 1438 (2007).[5] The memos contain little or no analysis for any conclusion that monitoring and reporting requirements, enforceable by administrative, civil, and criminal remedies under the Clean Air Act, are not "regulation" under the Act.

Furthermore, the Board is the final agency decision-maker in this case and does not give deference to EPA staff's interpretations of law. *In re Genesee Power Station Limited Partnership*, Appeal Nos. 93-1 through 93-7, 1993 WL 473846 (EAB Oct. 22,

[4] NMU also argues that EPA's regulation of CO2 in 40 C.F.R. Part 75 was a mistake, and that EPA meant to distinguish between Section 821 authority for the CO2 regulations in Part 75 and Section 412 for the other regulations in Part 75. (NMU Br. at 15.) The plain language of the Part 75 regulations belie this theory. (Pet. at 15; Reply to MDEQ at 5-8.) Moreover, NMU fails to address the fact that Part 75 regulations are, in turn, incorporated into additional regulations that are unquestionably "under the Act." *See, e.g.*, Reply to MDEQ at 7; 40 C.F.R. §§ 71.1(b), 71.3(c)(1), 71.7(a)(1)(iv) (requiring Title V operating permits to contain all "applicable requirements"), and 71.2 (defining "applicable requirements" to include "[a]ny standard or other requirement of... 40 C.F.R. parts 72 through 78.").

[5] EPA's counsel agreed during a hearing before the Board that the Wegman memo is based on an interpretation that was resoundingly rejected by the Supreme Court. *In re Deseret Elec. Power Coop.*, Appeal No. PSD 07-03, Hr'g Tr. at 59-60 (May 29, 2008).

1993) ("The Board does not view its function as that of making its legal views consistent with those of program and Regional offices... the Board must often evaluate and weight the competing views of Agency program and Regional offices against those of citizens, advocacy groups, industry representatives, other federal agencies, and State and local governments. It must exercise independent judgment in that regard.") That is especially true here.

4. NMU's Theory Is Not Supported By Caselaw and Is Contrary To The Only Caselaw Directly on Point.

NMU argues that "precedent from federal and state courts and the EAB" supports NMU's theory that "subject to regulation" means "subject to applicable emission standards." (NMU Br. at 13.) However, none of the cases NMU cites supports NMU's theory. Ironically, NMU dismisses as "hardly persuasive" the only case on point, *Friends of the Chattahoochee v. Georgia Department of Natural Resources*, No. 2008 CV 146398 (Ga. Super. Ct. June 30, 2008). (NMU Br. at 14.) The Board should reject NMU's "down-is-up" interpretations of caselaw.

The first case NMU cites, *Alabama Power v. Costle*, 636 F.2d 323 (D.C.Cir. 1979), says nothing about CO_2, or whether enforceable monitoring and reporting obligations under the Clean Air Act count as "regulation." Instead, it simply, and correctly, states that "[o]nce a standard of performance has been promulgated for [pollutants under Section 111], those pollutants become 'subject to regulation' within the meaning of section 165(a)(4)... the provision requiring BACT prior to PSD approval." *Id.* at 370 n.134. There is no doubt that pollutants subject to Section 111 requirements are "subject to regulation." Section 111, however, is not the only provision in the Clean Air Act, and does not define the entirety of pollutants subject to regulation. The *Alabama*

Power footnote cited by NMU says nothing about whether pollutants other than the particulate matter emission discussed in that case are, or are not, "subject to regulation." Specifically, the holding is not, as NMU would have the Board believe, that "only those pollutants subject to actual controls under the CAA fit within he PSD program." (NMU Br. at 13.)

The two Board decisions cited by NMU are similarly unavailing. (NMU Br. at 13 n.19, citing *In re Kawaihae Cogeneration Plant*, 7 E.A.D. 107 (EAB 1997), *In re Inter-Power of New York*, 5 E.A.D. 130, 151 and n.36 (EAB 1994).) The holding in *Kawaihae Cogeneration Project*, did not address the CO_2 issue. 7 E.A.D. 107 (EAB 1997). NMU implies that the Board's decision in that case "uphold[s] a PSD permitting decision in which the permitting authority found that CO_2 is not 'a regulated air pollutant'" because of the Board's agreement with the permitting authority. (NMU Br. at 13 n.19.) However, that was not the holding. The EAB neither agreed nor disagreed with the permitting agency's assessment of whether CO_2 is regulated because the petitioners offered no information or argument to support their position. *Kawaihae*, 7 E.A.D. at 132. The Board dismissed the issue without analysis. *Id.*

Similarly, in *Inter-Power of New York*, the Board does not discuss any legal authority for a holding that CO_2 is not "subject to regulation," and makes only passing reference to CO_2. 5 E.A.D. 130, 151 (EAB 1994). The lack of analysis in the decision is due to the fact that the petitioner in the case waived all arguments involving CO_2 by failing to raise them in comments, as required by the EAB rules. *Id.* at 130, n.35. Thus, the Board's decision was nothing more than a refusal to address CO_2 regulation as a

substantive issue in the case. NMU cannot elevate the Board's passing reference to CO_2 to act as the central holding in the case.[6]

Grasping further for an argument, NMU turns to an inapposite state court decision reviewing public utility board rulings. (NMU Br. at 13.) The South Dakota case cited by NMU, *In re Otter Tail Power Co.*, 744 N.W.2d 594 (S.D. 2008), is a review of a public utility commission's decision that does not address the Clean Air Act generally, or 42 U.S.C. § 7475(a)(4) specifically. It is related to this case only to the extent that it generally discusses CO_2. In contrast, the court in *Friends of the Chattahoochee,* did address whether CO_2 is a regulated pollutant for purposes of including a BACT limit in a PSD permit. (Reply to MDEQ Ex. 16 at 6-9.) In a thoughtful analysis, consistent with the plain language of the Clean Air Act, the court in that case held that "there is no question that CO2 is 'subject to regulation under the Act.'" (*Id.*) The court based its decision on the fact that monitoring and reporting obligations under the Act are enforceable by civil and criminal sanctions under the Clean Air Act, that such obligations are repeated in 40 C.F.R. Part 75, that Congress choose to use broad language of "subject to regulation," rather than narrower language used elsewhere to mean subject to an "emission limitation," and that EPA's definition at 40 C.F.R. § 52.21(b)(50)(iv) would not be given full effect if CO_2 is not subject to regulation. (*Id.*) The Board should look to the *Friends of the Chattahoochee* discussion of the issue in this case, rather than the inapplicable and irrelevant cases NMU cites.

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[6] EPA has interpreted Section 821 as part of the Clean Air Act, e.g., 40 C.F.R. §§ 75.1, 75.5, has enforced violations of Section 821 and its implementing regulations under the Clean Air Act, and identified CO2 regulations in 40 C.F.R. Part 75 as applicable requirements that must be included in Title V operating permits through 40 C.F.R. § 71.2. See also 40 C.F.R. § 71.12. If the agency wishes to abandon that position, it must now do so through notice and comment procedures. *Paralyzed Veterans of America v. D.C. Arena L.P.*, 117 F.3d 579, 586 (D.C. Cir. 1997).

5. NMU Cannot Collaterally Attack EPA's SIP Approvals Regulating CO_2 and N_2O In This Proceeding.

NMU concedes, as it must, that CO_2 and N_2O emissions are regulated under various state implementation plans ("SIPs") approved by EPA under Section 110 of the Act. (NMU Br. at 16-18.) SIPs, once approved by EPA, are enforceable regulations under the Clean Air Act. *E.g., General Motors Corp. v. U.S.*, 496 U.S. 530, 540 (1990) ("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.)."); (*see also* Reply to MDEQ at 7-8.) The decision in *Vermont v. EPA*, 850 F.2d 99 (2d Cir. 1988), is not contrary. In that case, Vermont proposed a SIP that would include an enforceable regional haze emission reduction in other states. *Id.* at 101. EPA did not adopt Vermont's plan because the applicable regulations did not provide for a regional plan at that time. *Id.* at 103. The court upheld EPA's decision not approving the Vermont plant based on the lack of a regulatory mandate for a regional haze plan. *Id.* at 104. The ruling is inapposite to this case. Sierra Club is not asking EPA to approve a SIP. Here, EPA already approved several SIPs that include CO_2 regulations—regardless of whether the regulations mandated that EPA do so. The CO_2 regulations are in the SIPs, and can only be removed through notice and comment rulemaking.

NMU attempts to mount a collateral attack on EPA's SIP approvals of CO_2 and N_2O provisions, arguing that the approvals were improper because only regulations that implement Clean Air Act requirements "can be part of an applicable implementation plan under the CAA." (NMU Br. at 17.) NMU's attack is untimely, and made in the wrong venue. *See* 42 U.S.C. § 7607(b)(1) (requiring a review of EPA's approval of a SIP to be

in the Court of Appeals for the appropriate circuit, and within 60 days of notice in the Federal Register).[7] NMU's invitation to ignore the requirements for challenging a SIP approval, and NMU's failure to use those procedures, must be rejected. CO_2 regulations were adopted by EPA pursuant to the Clean Air Act; CO_2 is therefore subject to regulation under the Act.

6. CO_2 is a Landfill Gas, Which Is Regulated Under The Act.

CO_2 is also regulated in the landfill emission regulations promulgated under section 111 of the Clean Air Act. 40 C.F.R. § 60.33c (requiring control of "MSW landfill emissions). Landfill gas ("LFG") emissions include CO_2. 40 C.F.R. § 60.751 (defining "landfill emissions" as all "gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste."); 63 Fed. Reg. 2154-01 (Jan. 14, 1998) (approving state plan for implementing landfill gas guidelines); Office of Air Quality Planning & Standards, U.S. EPA, Publ'n No. EPA-453/R-94-021, *Air Emissions from Municipal Solid Waste Landfills—Background Information for Final Standards and Guidelines* (1995) (identifying landfill emissions as including methane and CO_2). In short, CO_2 is a LFG, LFGs are regulated under the Clean Air Act, therefore CO_2 is regulated.

Recognizing that it cannot avoid the obvious implication that CO_2 is regulated under the Act as a regulated LFG, NMU tries again to obfuscate. (NMU Br. at 18.) NMU argues that Sierra Club did not raise the "issue" in its comments. (*Id.*) The "issue" is that the permit lacks a CO_2 BACT limit. (Pet. at 11-17); *see also In re Christian*

[7] NMU is also incorrect on the facts. Contrary to NMU's assertions that the CO_2 provisions in the Delaware code are state-only regulations (NMU Br. at 17-18), , when EPA Region 3 approved the Delaware SIP, it explicitly acknowledged that the SIP revision would regulate CO_2 and adopted all of the provisions—including the CO2 provisions—into the SIP. (Reply to MDEQ at 8 n.5 (quoting Region 3's justification documents).)

County Generation, PSD Appeal 07-01, Slip Op. at 9 (EAB January 28, 2008) (identifying the "issue" as "that a BACT limit must be established for CO_2 emissions"). Sierra Club's comments clearly addressed this issue. (Pet. Ex. 2 at 8-11.) Sierra Club identified many of the instances where CO_2 is subject to regulation under the Act. (*Id.*) In fact, Sierra Club's comments were even more specific on this issue than those the Board discussed as likely being sufficient in the *Christian County* case. Slip Op. at 16 (quoting Sierra Club's comments regarding the Bonanza plant, and stating that "This comment was sufficient to apprise the permit issuer in that case... to include a detailed response on the issue...").

Moreover, MDEQ not only had an opportunity to respond to the issue of CO_2 BACT, but its response to comments rejected the concept wholesale. (Pet. Ex. 6 at 18-19 (MDEQ Response to Comments, asserting that there is no regulation of CO_2 or N_2O under either federal or state law).) Because MDEQ was given the opportunity to address the issue, Sierra Club also fulfilled the purpose of raising issues in public comments. *In re ConocoPhillips Co.*, PSD Appeal No. 07-02, Slip Op. at 44-45 (EAB June 2, 2008) (stating that a petition must show "that they raised the greenhouse gas BACT issue during the public comment period," and noting that the purpose of that requirement is to allow the permitting authority to address it first). Only in response to MDEQ's contention that CO_2 is regulated *nowhere* under the Act, was it necessary to list each instance where CO_2 is regulated—including as a regulated LFGs.

C. NMU's Policy Arguments, Based on Irrelevant Rhetoric from Industry Lobbyists, Is Unconvincing and Cannot Defeat the Requirements of the Act.

As a last-ditch attempt to avoid a BACT limit for regulated CO_2 and N_2O emissions, NMU argues that the Board should ignore the law because it is "controversial"

and because EPA has, so-far, delayed doing anything through rulemaking. (NMU Br. at 20-21.) NMU suggests that the economy will suffer—citing nothing more authoritative than a publication by the U.S. Chamber of Commerce. (NMU Br. at 21.) Sierra Club does not contend that the solution to the climate crisis is a BACT limit for CO_2 in the NMU permit. But that does not make compliance with the law irrelevant. Regardless of what else will be required to prevent the catastrophic results of climate change, there is no basis for ignoring the plain language of 42 U.S.C. § 7475(a)(4). Whether Congress intended, or even thought about BACT limits for CO_2, the language it chose to enact provides for that result. The fact that the statute "can be applied in situations not expressly anticipated by Congress does not demonstrate ambiguity. It demonstrates breadth." *Massachusetts*, 127 S.Ct. at 1462 (quoting *Pennsylvania Dep't of Corr. v. Yeskey*, 524 U.S. 206, 212 (1998)).

Moreover, the PSD program is intended to limit increases of pollution to rates that are achievable with pollution controls, clean fuels, or cleaner alternative processes. 42 U.S.C. § 7479(3) (defining BACT as "an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under [the Act]... achievable for such facility through application of production processes and available methods, systems, and techniques, including... clean fuels..."); *see generally Alabama Power*, 636 F.2d at 349-51. BACT limits temper increases in emissions from new and modified sources—a regulatory concept well-suited for the current interim period while Congress and EPA consider further regulation of greenhouse gases. While regulatory agencies have admittedly overlooked BACT limits for CO_2 and N_2O in the past, BACT limits that

minimize global warming pollution increases based on current technology are reasonable interim steps for slowing the growth of such pollution.

II. NMU CONFLATES A "SAFETY FACTOR" IN CALCULATING A BACT LIMIT WITH CHOOSING THE TOP-RANKED POLLUTION CONTROL OPTION.

In its Petition, Sierra Club seeks review of MDEQ's decision not to establish BACT limits for SO_2 (among other pollutants) based on wood, an available clean fuel, rather than coal. (Pet. at 18-32.) There is no dispute that the NMU boiler is being built to fire 100% wood fuel. (*See, e.g.*, NMU Br. at 2 ("The primary fuel is biomass—wood chips and by-products that are already available in the Upper Peninsula of Michigan...").) The boiler is capable of burning other fuels, including coal and natural gas, as backup fuels. (*Id.* at 3 ("This plant is designed to be a 100 percent wood-burning facility with the capability to burn alternative types of fuel in backup situations.").) Nevertheless, MDEQ established BACT limits for SO_2 based on the presumption that the boiler would burn dirtier coal as the primary fuel.[8] Because wood is an available, technologically feasible, and cost effective option for reducing SO_2 emissions, it should have been selected as the top-ranked pollution control option in a top-down BACT analysis. (Pet. at 20.)

NMU argues that BACT limits should be set assuming worst-case fuels, based on the Board's decisions in *Newmont Nevada Energy Investment, LLC*, and *Masonite Corporation*. (NMU Br. at 22, citing *In re Newmont Nev. Energy Inv., LLC*, 12 E.A.D. 429, 442 (EAB 2005); *In re Masonite Corp.*, 5 E.A.D. 551, 560 (EAB 1994).) However, neither case supports NMU's argument. Instead, both cases note that *after* a top-ranked

[8] The BACT limit assumes that NMU will burn 100% coal for 22 of every 30 days. (Pet. Ex. 5 at 4.)

option is identified, the permitting authority can establish the corresponding emission limit achievable on a long-term basis, considering inherent fluctuations in control efficiency. In *Newmont*, the Board addressed the issue of what NOx emission rate from a selective catalytic reduction and low-NOx burner combination should be established as the permit limit. 12 E.A.D. at 438. There was no dispute in that case with the pollution controls selected, only with the stringency of the limit derived from those controls. *Id.*; *see also id.* at 444-45 (noting that the petitioner "does not take issue with the choice of [fuel] proposed for the TS Power Plant.") Similarly, in *Masonite Corp.*, the Board addressed the issue of what VOC emission rate from a regenerative thermal oxidizer (RTO) should be established as a permit limit. 5 E.A.D. at 559. The dispute was whether 98% control efficiency, rather than 95% control efficiency, must be assumed when establishing the limit. *Id.* Both cases addressed the appropriate numerical limit based on a pollution control option already established as the top-ranked. Neither case addressed the issue here: whether a lower-ranked control option should be selected over a higher-ranked option.

NMU's reliance on *Sierra Club v. EPA* and *National Lime Association v. EPA* is also misplaced. (NMU Br. at 22, citing *Sierra Club v. EPA*, 167 F.3d 658, 665 (D.C. Cir. 1999); *Nat'l Lime Ass'n v. EPA*, 627 F.2d 416, 431 n.46 (D.C. Cir. 1980).) NMU cites these cases for the proposition that an emission limit is only "achievable… if it can be met under 'reasonably foreseeable worst case conditions,'" which NMU contends means the worst-possible pollution control option. (NMU Br. at 22.) NMU argues that because the proposed boiler is physically capable of burning 100% coal, BACT must be established based on that fuel rather than the technically feasible, cost-effective, less-

polluting wood fuel that is intended as the primary fuel for the boiler. (Id.) Neither case NMU cites supports such an interpretation.

In *Sierra Club*, the court reviewed EPA's medical waste incinerator performance standard under 42 U.S.C. § 7429(a)(1).[9] 167 F.3d 658. The court held that *after* EPA determined the control technology in use at the best performing incinerator ("a so-called moderate-efficiency wet scrubber"), EPA could establish the emission limit "floor" based on the "the worst reasonably foreseeable circumstances." 167 F.3d at 664-65. Unlike the issue in this case—whether wood fuel was appropriately rejected as the top-ranked option in the BACT analysis—the *Sierra Club* court addressed the appropriate limit corresponding to a pre-determined technology.

The decision in *National Lime* is even less relevant. In that case, the court was asked to review a new source performance standard under 42 U.S.C. § 7411 to determine whether there was sufficient evidence that the standard was "achievable" for every source in the entire lime industry. 627 F.2d at 430-31. NMU fails to recognize that the issue here is not what limit corresponds to a specific technology, but in selecting the top pollution control option: whether coal or wood. (*See* Pet. at 20 ("Because the use of waste wood would result in the lowest emission rates of SO2, the use of 100% waste wood as fuel is the 'top' pollution control option.").) NMU does not provide any reason why clean wood fuel should be ignored, other than its apparent belief that BACT should

[9] Such limits are to "reflect the maximum degree of reduction in emissions of air pollutants listed under [§ 7429 (a)(4)] that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing units in each category." 42 U.S.C. § 7429(a)(2). However, such limits must be based on "[t]he degree of reduction in emissions that is deemed achievable for new units in a category [that is] not be less stringent than the emissions control that is achieved in practice by the best controlled similar unit, as determined by the Administrator." *Id.*

be based on the worst pollution control option, rather than the best pollution control option.

III. USING A CLEANER FUEL TO ESTABLISH SO_2 BACT LIMITS IS REQUIRED BY THE ACT AND DOES NOT IMPERMISSIBLY REDEFINE THE SOURCE.

MDEQ established SO_2 BACT limits for the NMU boiler based on 2 lb SO_2/MMbtu coal. (Pet. at 34-35.) This represents a coal sulfur content worse than is typical for the coals that NMU claims it would burn as a backup fuel to wood, and much worse than typical subbituminous coal. This assumption of worst-case fuel should be reversed for a number of reasons.

First, while NMU and MDEQ imply that there was a determination that NMU must fire coal from an electric generating station, either the Wisconsin Electric Power Company's Presque Isle plant or the Marquette Board of Power & Light plant, there was no analysis in the record that other fuel sources are technologically infeasible, not cost effective, or otherwise inappropriate due to collateral impacts. Pet Ex. 5 at 2; *NSR Manual* at B.7-B.9 (providing that higher ranked options should be analyzed and that technological infeasibility, cost effectiveness, environmental and energy impacts should be documented); *ConocoPhillips*, Slip Op. at 28-29. Second, MDEQ assumed that coal from the local power plants would necessarily have a sulfur content of 2 lb SO2/MMBtu, despite the fact that data from at least one of the two plants shows a lower actual SO_2 content. (Pet. at 36-38.)

NMU argues that MDEQ's failure to analyze and document the basis for its assumptions that two local power plants were the only feasible fuel supply, and that a 2 lb SO_2/MMBtu coal was representative of NMU's fuel supply, was excusable. (NMU Br. at

23.) While NMU alludes to "limitations inherent" to the proposed boiler, which are "explained in the MDEQ brief and the record," (NMU Br. at 23), NMU points to nothing in the record to support this claim.[10]

NMU's only argument in support of MDEQ's default to high sulfur coal to establish long-term BACT limits is to attempt to characterize such high sulfur coal as a part of the fundamental design of the plant that is immune from BACT analysis. (NMU Br. at 23 ("Use of coal from its neighbors as a backup fuel when biomass is unavailable is part of NMU's business plan for constructing this boiler, and is an inherent aspect of the proposed project independent of air quality permitting.").) The argument—that anything NMU claims to be inconsistent with its "business plan" is beyond the scope of BACT--relies on a misinterpretation of the Clean Air Act and an expansion of the Board's decision in *Prairie State Generating Company*, 13 E.A.D. ___, PSD Appeal No. 05-05 (EAB Aug. 24, 2006) that would eviscerates the "clean fuels" provision in the BACT definition. In the *Prairie State* decision, the Board reaffirmed that clean fuels are a pollution control option that must be considered in a BACT determination. Slip. Op. at 22. While the Board's decision did state that a BACT analysis need not include pollution control options that "disrupt[] the applicant's basic business purpose for the proposed

[10] To the extent that MDEQ relied on the lack of existing solid fuel storage at NMU to allow combustion of another fuel than coal from an electric generating plant, which is not apparent in the record[10], MDEQ should have considered whether it was possible for NMU to build or acquire additional storage. (*See* Pet. at 31 (an inadequate design that can be addressed do not make a pollution control option infeasible), citing *NSR Manual* at B.20.) A proper BACT analysis cannot accept an applicant's assertion about which pollution control options "make sense to" include, as NMU suggests. (NMU Br. at 23.) Rather, the agency must make an independent analysis of the available technologies and their feasibility. *In re ConocoPhillips*, Slip. Op. at 33-35 (holding that the agency must make an independent and sufficient BACT analysis).

facility," *id.* at 30, the Seventh Circuit cautioned against interpreting the Board's decision as broadly as NMU does here.

> Suppose this were not to be a mine-mouth plant but Prairie State had a contract to buy high-sulfur coal from a remote mine yet could burn low-sulfur coal as the fuel source instead. *Some adjustment in the design of the plant would be necessary in order to change the fuel source from high-sulfur to low-sulfur coal... but if it were no more than would be necessary whenever a plant switched from a dirtier to a cleaner fuel the change would be the adoption of a "control technology." Otherwise "clean fuels" would be read out of the definition of such technology.*
>
> [Some passages in the Board's *Prairie State* decision] might be read as merging two separate issues: the difference between low-sulfur (clean) and high-sulfur (dirty) coal as a fuel source for a power plant, and the difference between a plant co-located with a coal mine and a plant that obtains its coal from afar. The former is a difference in control technology, the latter a difference in design (or so the EPA can conclude). We think it is sufficiently clear... that the Board did not confuse the two issues; that it granted the permit not because it thinks that *burning* low-sulfur coal would require the redesign of Prairie State's plant (it would not), but because *receiving* coal from a distant mine would require Prairie State to reconfigure the plant as one that is not co-located with a mine, and this reconfiguration would constitute a redesign.

Sierra Club v. E.P.A., 499 F.3d 653, 656 (7th Cir. 2007) (emphasis added in first paragraph, original in second paragraph). In other words, the Seventh Circuit expressly rejected NMU's argument, and its interpretation of the Board's *Prairie State* decision, that the specific fuel choice by the applicant is immune from changes during the BACT determination. Plant design changes necessary to burn cleaner fuel, as well as changes to the applicant's preferences or expectations must be considered so that Congress' command to based BACT limits on clean fuels is given effect.[11]

[11] MDEQ and NMU's recent revelations that burning natural gas as a backup fuel is an option at the proposed boiler further undermine their argument that coal from two neighboring electric generating

NMU has not provided any basis in the record for MDEQ's refusal to consider cleaner coal, nor its refusal to use the typical coal from the two neighboring coal plants in establishing BACT limits. NMU's attempt to hide behind a "redefining the source" argument must be rejected as inconsistent with the Seventh Circuit's decision in *Prairie State* and with the plain language of the Clean Air Act.

IV. THE PLAIN LANGUAGE OF 40 C.F.R. § 52.21(b)(13)(ii) BELIES NMU'S ARGUMENT THAT MDEQ'S INCREMENT ANALYSIS WAS CORRECT.

As set forth in the Petition, the Presque Isle Power Plant, near the permittee's proposed boiler, commenced construction of a major modification after the major source baseline date. (Pet. at 40-41 and Ex. 6 at 14.) Therefore, the Presque Isle Power Plant is excluded from the baseline and consumes increment. 40 C.F.R. § 52.21(b)(13)(ii)(a). NMU does not dispute this. What NMU does dispute, is the amount of emissions from Presque Isle that consume increment. NMU claims that: (1) "MDEQ concluded that only the change in emissions from Presque Isle as a result of the modifications commenced after the major source baseline date"; and (2) this was a correct interpretation of 40 C.F.R. § 52.21(b)(13)(ii)(a). (NMU Br. at 24-25.) NMU is wrong on both counts.

First, MDEQ did not "conclude[] that only the change in emissions from Presque Isle consume increment." MDEQ made no determination as to what "change in emissions" resulted from any modifications to Presque Isle. Rather, MDEQ calculated the difference in the Presque Isle plant's emissions in 1973 and 2006. (*See* Pet. Ex. 6 at

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plants is necessary. (*See* Sierra Club's Reply to MDEQ at 11 n.6 (noting that MDEQ's original position was that the plant cannot burn gas, but if the plant is able to burn gas as a backup fuel the BACT analysis should have included gas); NMU Br. at 3 ("This plant is designed to be a 100 percent wood-burning facility with the capability to burn alternative types of fuel... These would include natural gas and coal.").)

14 ("A comparison was made between the reported SO2 emissions from PIPP for 1973 and 2006 which were found to be 15,274 tpy and 16,609 tpy respectively. This increase of 1335 tpy should not be part of the baseline and should be considered in the PSD increment analysis.").) Therefore, even under NMU's theory, the analysis done by MDEQ fails because it is not based on a determination of increases caused by any modification.

Second, NMU is incorrect in its interpretation of 40 C.F.R. § 52.21(b)(13)(ii)(a). NMU cites a Federal Register notice and the *NSR Manual* for the proposition that § 52.21(b)(13)(ii) excludes emission increases resulting from major modifications from the baseline. (NMU Br. at 24-25.) NMU calls this the "'increases in actual' emissions as a result of the modifications." (NMU Br. at 25.) This interpretation by NMU conflicts with the actual language of 40 C.F.R. § 52.21(b)(13)(ii). In contrast to § 52.21(b)(13)(ii)(b), which excludes "increases and decreases... at any stationary source occurring after the minor source baseline date," § 52.21(b)(13)(ii)(a) excludes all "actual emissions" from major sources constructed (including modified) after the major source baseline date from the baseline concentration.[12] Because the Presque Isle plant "commenced construction" after the major source baseline date, by undergoing a major modification, the plain language of § 52.21(b)(13)(ii)(a) excludes all of its "actual emissions" from the baseline. There is no question that MDEQ failed to exclude the "actual emissions" from the Presque Isle plant from the baseline concentration.

[12] The plain language of the Clean Air Act confirms that all "[e]missions of sulfur oxides and particulate matter from any major emitting facility on which construction commenced after January 6, 1975, shall not be included in the baseline and shall be counted against the maximum allowable increases in pollutant concentrations established under this part." 42 U.S.C. § 7479(4).

NMU suggests that it is only the "'increases in actual' emissions as a result of the modifications" that is excluded from the baseline— meaning some amount less than the "actual emissions" defined in 40 C.F.R. § 52.21(b)(21). (NMU Br. at 25.) There is no support for this interpretation in the Act or the applicable regulations.

The Federal Register notice that NMU cites does not contradict the plain language of the regulation, nor could it. *Wards Cove Packing Corp. v. Nat'l Marine Fisheries Serv.*, 307 F.3d 1214, 1219 (9th Cir. 2002) ("[T]he plain meaning of a regulation governs and deference to an agency's interpretation of its regulation is warranted only when the regulation's language is ambiguous." (citing *Christensen v. Harris County,* 529 U.S. 576, 588 (2000))); *Wyoming Outdoor Council v. U. S. Forest Service,* 165 F.3d 43, 53 (D.C. Cir. 1999) (holding that, by analogy to statutory text, the preamble is not law because it does not "prescribe rights and duties and otherwise declare the legislative will"). The notice simply provides that "[m]ajor sources that have increased or decreased actual emissions after the major source baseline date as a result of construction..." affect available increment. 72 Fed. Reg. 31,372, 31,380 (June 6, 2007). This says nothing about the *amount* of emissions from the modified source that affects increment. Specifically, it does not say that only the increase in emissions is excluded, rather than all of the "actual emissions" from the modified source.

NMU also selectively quotes from page 31,377 of the same notice, but fails to include the relevant sentence. The notice states:

> The inventory of emissions includes emissions from increment-affecting sources at two separate time periods— the baseline date and the current period of time. For each source that was in existence on the relevant baseline date (major source or minor source), the inventory includes the source's actual emissions on the baseline date and its

> current actual emissions. The change in emissions over these time periods represents the emissions that consume increment (or, if emissions have gone down, expand the available increment). *For sources constructed*[13] *since the relevant baseline date, all their current actual emissions consume increment and are included in the inventory.*

72 Fed. Reg. at 31,377 (emphasis added); *see also* NMU Br. at 24 (quoting select portions). The last sentence confirms that all of the actual emissions from a source like Presque Isle, that commenced construction of a major modification after the major source baseline date, consume increment.

Lastly, NMU incorrectly argues that the *NSR Manual*, in discussing the emission increases that consume increment, includes the phrase: "*actual emissions increases occurring after the* ***major source baseline date***..." (NMU Br. at 25, citing *NSR Manual* at C.10 (emphasis original). NMU reads too much into the statement and takes it out of context. The context of the relevant statement in the *NSR Manual* shows that the word "increases" does not limit the plain language of the term "actual emissions" in § 52.21(b)(13)(ii)(a), but is used to distinguish between emission changes that decrease increment, and those that increase increment ("increment expansion"). *See NSR Manual* at C.10. The *Manual* uses the term "increases" as shorthand for emission changes that reduce available increment and "reduction" as shorthand for emission changes that expand available increment. *Id.* In that context, the statement NMU quotes merely states that sources modified after the major source baseline date decrease the available increment.[14]

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[13] For purposes of PSD permitting, "construction" includes modifications. 42 U.S.C. §§ 7479(2)(C), 7411(a); 40 C.F.R. § 52.21(b)(8).

[14] If the *Manual* stated what NMU implies—that only the amount of emission increase caused by a modification after the major source baseline date consumes increment—the *Manual* would conflict with the

In summary, the "actual emissions" from the Presque Isle plant consume increment. 40 C.F.R. §§ 52.21(b)(13)(ii)(a), (14)(i)(a). "Actual emissions" from Presque Isle are one of two options:

- The emissions during the 24 months prior to the permit date for the NMU plant, or a more representative period based on normal operations, 40 C.F.R. § 52.21(b)(21)(ii); or
- The allowable emissions, § 52.21(b)(21)(iii). (*See also* Sierra Club's Reply to MDEQ Br. at 21.)[15]

In this case, MDEQ used neither of these options. As set forth above, and in the Petition for Review, MDEQ opted, instead, for the difference in emissions between 1973 and 2006. (Pet. at 40-41; *see also* Reply to MDEQ Br. at 21-22.) This is unlawful and requires a remand.

V. THE RECORD LACKS ANY PROOF THAT THE PERMIT LIMITS ARE SUFFICIENT TO ENSURE COMPLIANCE WITH NAAQS AND INCREMENT BECAUSE MDEQ'S ONLY MODELING USED UNENFORCEABLE EMISSION RATES.

As stated in Sierra Club's reply to MDEQ, the issue before the Board regarding NAAQS and Increment compliance is whether the long-term emission limits, which allow widely varying emissions on a short-term basis, can ensure compliance with short-term NAAQS and Increment standards. (Reply to MDEQ at 22-23.) NMU appears to agree, but contends that the PM_{10} emission limits are enforceable over a 3-hour period, which would ensure compliance with the 24-hour standards. NMU's conclusion that the PM_{10} limit is enforceable on a 3-hour average is not clear from the permit, however.

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plain language of § 52.21(b)(13)(ii), and the regulation would control. *See e.g.,* 72 Fed. Reg. at 31,379-80 (noting that the NSR Manual is not binding and is not final agency guidance).

[15] There is a third option for "actual emissions," the plant's potential to emit, if the plant has "not begun normal operations." 40 C.F.R. § 52.21(b)(iv). However, it is assumed for purposes of this Petition, that the Presque Isle plant began normal operations of its modified sources prior to the permit for NMU at issue here.

NMU points to Special Condition 1.9 on page 8 of the Permit. (NMU Br. at 26.) NMU interprets this condition to require EPA Method 5 and 40 C.F.R. § 60.50Da(b)(2)(i). (*Id.*) Based on these interpretations of the Permit, NMU argues that the applicable permit limit for PM10 in Special Condition 1.1b is averaged over three hours. (*Id.*) Such an interpretation is not apparent in the Permit. Rather, Special Condition 1.1b simply states "Test Protocol" as the averaging permit for the PM_{10} limit and Special Condition 1.9 states that, for purposes of a one-time stack test, the "testing procedures and the location of stack testing ports shall be in accordance with the applicable federal Reference Methods." (*See* NMU Br. Ex. F at 6, 8.) If compliance with short term PM_{10} NAAQS and Increment is to be protected, the PM_{10} emissions must be limited over a time period no longer than 24-hours. The Permit does not do so clearly, if at all.

Additionally, NMU argues that the 24-hour SO_2 limit protects 3-hour NAAQS and Increment because "it is the 24-hour NAAQS and increment that are limiting, not the three-hour standards." (NMU Br. at 26.) The problem with this argument, of course, is that it relies on modeling that assumed constant emissions based on the 24-hour limit and not the maximum theoretical emissions over a 3-hour period. In other words, MDEQ cannot know whether the 24-hour of the 3-hour standards are limiting until the 3-hour standard is modeled based on the maximum 3-hour emission rate.[16]

Lastly, NMU argues that MDEQ did use the maximum hourly emission rate, expressed as grams per second, in the model. (NMU Br. at 26.) NMU points to no model result in the record to support this claim. MDEQ claims to have modeled the

[16] Modeling the 3-hour impacts with the 24-hour emission rate will always show 24-hour standards as limiting because they are lower than the 3-hour standards.

emissions from the new boiler at "an SO2 emission rate of 8.78E+01 lb/hr, or 87.8 lb/hr" and identifies 87.80 lb/hour as the maximum theoretical emission rate. (MDEQ Br. at 21 n.74, Ex. 9 at 2, and Ex. 2 at 64.)[17] This does not represent worst-case emissions; the maximum hourly emission rate is 512.5 lb/hr[18], not 87.8 lb/hr. Therefore, because no permit limit restricts SO2 limits to 87.8 lb/hour on a 1-hour (or 3-hour) basis, and MDEQ only modeled 87.8 lb/hour, MDEQ did not determine whether the 3-hour NAAQS and Increments are protected.

NMU argues that "the maximum hourly emission rates are identical to the modeled emission rate when they are converted and presented on the same basis." (NMU Br. at 26.) This appears to be based on NMU's misunderstanding of the tables on page 44 of the Petition. NMU appears to believe that the basis for Sierra Club's Petition is that the values in the columns do not match. The point of the table, however, was that the table values represent what MDEQ modeled as if "hourly emission rate" maximums—even though the actual hourly maximums are higher because no permit limit restricts

[17] 87.8 lb/hr is equivalent to 11.06 grams/second, the emission rate that was modeled. (NMU Br. at 26.) MDEQ cites to the following table as the maximum emission rates modeled in the record:

Table 6-4. New CFB Boiler Criteria Pollutant Emission Rates [1]

Pollutant	Maximum Hourly Emission Rate (lb/hour)	Modeled Emission Rate (gram/sec)
CO	34.85	4.39
SO_2	87.80	11.06
PM_{10}	6.15	7.75E-01
NO_x	20.50	2.58

[1] Based on worst-case emissions per fuel type.

(MDEQ Br. Ex. 2 at 64.)

[18] The only limit that applies during a period shorter than 24-hours is the coal sulfur limit of 1.5 percent by weight at 12,000 Btu/lb. (NMU Br. Ex. F at 7 (Permit Special Condition 1.3); *see also* Pet. Ex. 6 (Response to Comments) at 15 ("The maximum hourly heat input rate and the hourly emissions are limited by the size of the equipment.").) This is 2.5 lb SO2/MMBtu, which equates to 512.5 lb/hour at the maximum heat input to the boiler of 205 MMBtus/hour. (*See also* Reply to MDEQ at 24 n.12.)

emissions on an hourly basis. The permit SO_2 limits are all averaged over 24-hours, or longer, which allows higher emission rates during any 3-hour period. (*See* Pet. at 43.) In other words, MDEQ's error was not in modeling values different from what appears in the tables, but in assuming that the values in the tables represent maximum hourly emissions.

MDEQ did not determine compliance with short term NAAQS and Increment based on maximum emission rates during the applicable averaging times. The permit limits, which are averaged over periods longer than the NAAQS or Increment, do not ensure compliance during the applicable NAAQS and Increment averaging periods. The permit should be remanded so that MDEQ can conduct modeling with the maximum short-term emission rates, or revise the emission limits in the permit to correspond to the averaging times for NAAQS and Increment.

VI. NMU FAILS TO CITE ANY LEGAL BASIS FOR MDEQ'S DECISION TO WAIVE PRECONSTRUCTION MONITORING.

As set forth in Section VII of the Petition, MDEQ did not require any preconstruction monitoring for air quality and, instead, allowed substitution of data from monitoring stations that do not meet the EPA's criteria for substituted data. (Pet. at 45-54.) NMU responds by stating that some, but not all, pollutants are exempt from preconstruction monitoring pursuant to 40 C.F.R. § 52.21(i)(6)(i). (NMU Br. at 27 (arguing that CO, PM10, and NOx were modeled as below the Significant Impact Levels and are, therefore, exempt from pre-construction monitoring).) Because 40 C.F.R. § 52.21(i)(6)(i) contains no such exemption, NMU presumably meant to refer to 40 C.F.R. § 52.21(i)(5)(i). However, NMU fails to recognize that § 52.21(i)(5)(i) gives the Administrator the *discretion* to waive the preconstruction monitoring requirements based

on modeled impacts. Here, neither the MDEQ nor the EPA exercised that discretion. Instead, MDEQ denies waiving preconstruction monitoring, but claims to have substituted background data from other areas for all pollutants. (MDEQ Br. at 23-24; Pet. Ex. 6 (Response to Comments) at 15 (stating that MDEQ substituted data, but that "No written waiver was requested by the permit applicant, and none was issued by AQD.").)

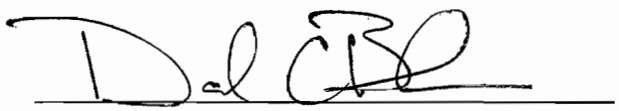
NMU concedes that preconstruction monitoring was required for SO_2, but offers nothing more than a conclusory statement that "MDEQ reasonably found that available monitoring data was representative..." (NMU Br. at 27.) For the reasons set forth in the Petition and Sierra Club's reply to MDEQ, not only did MDEQ conduct no analysis upon which to base a determination that distant air quality monitors are representative, but EPA's minimum standards for substituted data are clearly not met. (Pet. at 45-54; Reply to MDEQ at 25-29.)

CONCLUSION

For these reasons Sierra Club respectfully requests that the Board review and remand the Northern Michigan University PSD permit.

Respectfully submitted, this 3rd day of October, 2008.

GARVEY MCNEIL & MCGILLIVRAY, S.C.



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

IN THE MATTER OF: NORTHERN MICHIGAN UNIVERSITY	)	APPEAL NUMBER: PSD 08-02
	)	PSD PERMIT NUMBER: 60-07

CERTIFICATE OF SERVICE
OF PETITIONER'S REPLY TO INTERVENOR NORTHERN MICHIGAN UNIVERSITY'S BRIEF IN RESPONSE TO PETITION

On October 3, 2008, I caused to be served via Federal Express delivery a copy of the foregoing Reply Brief to:

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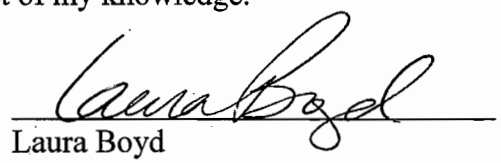
I declare that the foregoing is true to the best of my knowledge.



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