

**BEFORE THE U.S. ENVIRONMENTAL PROTECTION AGENCY**

## **COMMENTS OF:**

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POVERTY, & THE ENVIRONMENT, CLEAN AIR TASK FORCE,  
CONSERVATION LAW FOUNDATION, GEORGIA FOREST WATCH,  
NATURAL RESOURCES COUNCIL OF MAINE, SOUTHERN  
ENVIRONMENTAL LAW CENTER, WILD VIRGINIA, AND THE  
PARTNERSHIP FOR POLICY INTEGRITY**

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## 1. Introduction.

Our nine non-profit environmental organizations write on behalf of our many members in response to EPA’s decision, published in this docket, to reconsider a fundamental part of the Agency’s Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 75 Fed. Reg. 31,514

(June 3, 2010) (“Tailoring Rule”), in order to create a blanket exemption from the Clean Air Act’s pre-construction and Title V permitting requirements to the carbon dioxide (“CO<sub>2</sub>”) emissions from biomass-fired and other biogenic sources. As we will show in these comments, EPA’s proposed exemption is unlawful, arbitrary, and capricious. We also oppose the blanket three year exemption on policy grounds because if finalized it will have the effect of increasing uncontrolled near-term emissions of CO<sub>2</sub>.

We should make clear at the outset, however, that our organizations continue to strongly support EPA in its *lawful* exercise of its clear authority under the Clean Air Act to regulate stationary sources of greenhouse gas emissions, including CO<sub>2</sub>. Indeed, such action is non-discretionary as a legal matter and essential as a matter of science, as near term reductions in climate forcing air pollutants – particularly CO<sub>2</sub> – are essential if we are to avoid the most significant damage from climate change. Carbon dioxide emissions are of utmost importance because of their long persistence in the earth’s atmosphere. Significant amounts of each ton of CO<sub>2</sub> emitted remains in the atmosphere for more than a century, causing radiative forcing, increasing global temperatures, and drastically changed climatic conditions. Actions to *reduce* overall CO<sub>2</sub> emissions *over the near term* (measured in years rather than decades) therefore are essential to avoid climate change damage.

The evidence that damage is already occurring due to the radiative forcing, climate changing effects of CO<sub>2</sub> is unassailable.<sup>1</sup> Last year tied with 2005 as the warmest year on record.<sup>2</sup> The summer sea-ice minimum in the Arctic in 2010 was the third-lowest on record.<sup>3</sup> Runoff from the Greenland ice sheets occurred in

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<sup>1</sup> IPCC, Climate Change 2007: Synthesis Report, An Assessment of the Intergovernmental Panel on Climate Change (2007), available at [www.ipcc.ch](http://www.ipcc.ch); Fussel, H.-M., An Updated Assessment of the Risks from Climate Change Based on Research Published Since the IPCC Fourth Assessment Report, 97 Climatic Change 469-482 (2009) (attached as Exh. 1); USGCRP, Global Climate Change Impacts in the United States, U.S. Global Change Research Program, Thomas R. Karl, Jerry M. Melillo, and Thomas C. Peterson, (eds.), Cambridge University Press (2009), available at <http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts>.

<sup>2</sup> NOAA, 2010: Tied For Warmest Year on Record (2011), fact sheet available at [http://www.noaanews.noaa.gov/stories2011/20110112\\_globalstats.html](http://www.noaanews.noaa.gov/stories2011/20110112_globalstats.html).

<sup>3</sup> NSIDC, Weather and feedbacks lead to third-lowest extent (2010); available at <http://nsidc.org/arcticseaincnews/2010/100410.html>.

excess of scientists' worst-case estimates.<sup>4</sup> Extreme weather, including record flooding, battered areas from Pakistan to Australia to South America, as well as areas in the United States. And some of the top climate scientists in the world told United Nations climate negotiators in Mexico that global emissions must begin to decline very sharply within the next decade, if we are to have a decent chance of avoiding the most catastrophic impacts of climate change.<sup>5</sup> Given those facts, and the failure of comprehensive climate legislation in Congress, EPA's Clean Air Act authority remains our first and best line of defense against these changes.

EPA's proposal, in simplest terms, announces a blanket exemption for CO<sub>2</sub> emissions from *all* sources burning *every kind* of biomass fuels from the Clean Air Act's statutory requirements for permitting and emissions limits for stationary sources of greenhouse gases. Specifically, EPA proposes a broadly scoped amendment to the definition of pollutants "subject to regulation" under the PSD and Title V programs,<sup>6</sup> encompassing *all* CO<sub>2</sub> emissions from combustion or decomposition of all organically based, non-fossilized fuels of all kinds.<sup>7</sup> See 76 Fed. Reg. at 15,260, 15,265-66 (proposed regulatory changes to 40 C.F.R. §§ 52.166(b)(148)(ii)(a), 52.21(b)(49)(ii)(a), 70.2(2), 71.2(2)). EPA proposes to keep this blanket exemption in place for three years while it further studies whether *some* biomass fuels *may* provide *some* greenhouse gas reduction benefits at a *some* point in the future.

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<sup>4</sup> Pritchard, H. D., R. J. Arthem, D. G. Vaughan, and L. A. Edwards, Extensive Dynamic Thinning on the Margins of the Greenland and Antarctic Ice Sheets, *Nature* 461:971-975 (2009) (attached as Exh. 2); Tedesco, M., X. Fettweis, M. R. van Den Broeke, R. S. W. van de Wal, C. J. P. P. Smeets, W. J. van de Berg, M. C. Serreze, and J. E. Box, The Role of Albedo and Accumulation in the 2010 Melting Record in Greenland. *Environmental Research Letters* 6:014005 (2011) (attached as Exh. 3).

<sup>5</sup> United Nations Environment Programme (UNEP), The Emissions Gap Report: Are the Copenhagen Accord Pledges Sufficient to Limit Global Warming to 2C or 1.5C? (2010) (attached as Exh. 4).

<sup>6</sup> EPA correctly states that at this point "absent some further regulatory action, [the Agency] is unable to exclude biogenic CO<sub>2</sub> emissions" from the applicability of the PSD and Title V programs. 76 Fed. Reg. at 15,260.

<sup>7</sup> EPA states that its exemption applies to CO<sub>2</sub> emissions "generated during the combustion or decomposition of biologically based material," which includes "non-fossilized and biodegradable organic material originating from plants, animal or microorganisms (including products, by products, residues and waste from agriculture, forestry and related industries as well as the non-fossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and liquids recovered from the decomposition of non-fossilized and biodegradable organic material)." 76 Fed. Reg. at 15,251 & n. 2.

As will be shown herein, EPA has not justified its proposal, either as a matter of law or science. And, while it is reasonable for EPA to submit to a new, independent scientific panel questions about which biomass fuels might provide *some* carbon benefits, creating a blanket exemption for sources of biogenic emissions from mandatory permitting requirements in hopes that an ongoing study might later justify that exemption is a plain violation of the statute’s language and Congressional intent. EPA’s proposal will create increased demand for indiscriminate biomass burning during the “deferral” period – thereby *increasing* uncontrolled CO<sub>2</sub> emissions in the name of studying the means to *reduce* them.

Rather than taking the approach EPA proposes, EPA’s only lawful course of action is to require PSD and Title V permits for every major source that emits CO<sub>2</sub> at the Tailoring Rule thresholds. Inquiries concerning allegedly clean fuel feedstocks for each facility must be resolved on a case-by-case basis as part of the analysis determining emissions limits based on application of the “best available control technology” (“BACT”). The results of EPA’s ongoing studies concerning the lifecycle carbon pollution impacts of various biogenic materials can and should be applied as part of that analysis; but, absent a strong showing or justification, as described herein, cannot as a legal matter play a part in determining whether PSD and Title V permits must be obtained.

## 2. EPA’s Proposed Exemption for Biogenic CO<sub>2</sub> Emissions Is Unlawful.

- a. The Clean Air Act’s Language and Statutory Design Require that “Emissions” of “Any Air Pollutant” – Including Biogenic CO<sub>2</sub> – Count Toward PSD and Title V Applicability.

The plain language of the Clean Air Act and EPA’s practice for decades makes absolutely clear that, in determining whether a facility must apply for a PSD or Title V permit (the “applicability determination”), *all* emissions of an air pollutant directly from the facility must be taken into account. That is, regardless of the fuel types used at a source, if the relevant pollutant emission threshold is met, a preconstruction permit must be held, and the emissions limits it contains complied with, when the source is operational. This conclusion is inescapable based on the Act’s definitions and structure.

Specifically, section 165(a) of the Act requires that prior to the commencement of construction of any major emitting facility, a permit must be issued for the proposed facility based on the “best available control technology for *each pollutant*” emitted by the facility. 42 U.S.C. §§ 7475(a)(1), (a)(4)(emphasis added). The definition of “major emitting facility” in section 169(a) also hinges on the emission of specified quantities of “*any air pollutant*.” 42 U.S.C. § 7479(1)(emphasis added).<sup>8</sup> The Supreme Court, in Massachusetts v. EPA, 549 U.S. 497, 528-30 (2007), firmly established that CO<sub>2</sub> is an “air pollutant” within the meaning of the Clean Air Act, and that holding applies to all CO<sub>2</sub> – not just to “fossil-fuel-based” CO<sub>2</sub>. Biogenic CO<sub>2</sub>, like all other CO<sub>2</sub>, is an air pollutant.<sup>9</sup>

Nothing in the language of the Clean Air Act permits EPA to count less than all of the air pollutant that is emitted, or to carve out an exemption for some molecules of an air pollutant, depending on the fuel type from which it is produced. The PSD (and Title V) permitting requirements are triggered if the amount of emissions generated by the facility make it a “major emitting facility.” 42 U.S.C. §7479(1). The statutory framework and EPA’s longstanding interpretation of that framework<sup>10</sup> requires assessment of how much of the air pollutant is *emitted by the source*. Specifically, a facility becomes a “major emitting facility” based on the amounts of pollutants which it “emit[s] or ha[s] the

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<sup>8</sup> The statutory scheme also requires that emissions limits contained in the PSD permit must be included in an operating permit held by the source, and achieved by the source on a continuous basis. See 42 U.S.C. §§ 7661(a), 7661b(b), 7661c(a).

<sup>9</sup> Title V of the Clean Air Act by its terms applies to all “major sources,” defined as sources of more than 100 tons per year of “any air pollutant.” 42 U.S.C. §§ 7602(j), 7661(2). The applicability provisions of Title V are therefore broader than those of the PSD program, and would certainly encompass the “air pollutant” CO<sub>2</sub>. EPA, however, has interpreted the Title V program as applying only to pollutants otherwise “subject to regulation.” Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule; Final Rule, 75 Fed. Reg. 31,534, 31,553-54. EPA reaffirmed this interpretation, along with its desire to maintain consistency between the Title V and PSD programs, in the final Tailoring Rule. *Id.* at 31,554. Regardless of whether Title V is more broadly applicable than the PSD program, or whether the two programs’ applicability requirements are coterminous (as EPA has suggested), EPA’s proposed exemption for biogenic CO<sub>2</sub> from either of these programs at the applicability stage runs afoul of the statute’s plain text.

<sup>10</sup> EPA’s historic approach and current regulations omit offsite or “secondary” emissions from applicability determinations, see 40 C.F.R. §§ 51.166(b)(4), (b)(18), and EPA does not propose to amend this rule. Where reductions in emissions are allowed to “net” against increased emissions from a change at an existing source, moreover, those reductions must be located at the same source and be “contemporaneous” with the change, federally enforceable, and of the “same qualitative significance for public health and welfare” as the increase. *Id.* at (b)(3). EPA’s proposed exemption, by contrast, would allow a source to count offsite, non-contemporaneous (either future or past) CO<sub>2</sub> uptake from the atmosphere against onsite immediate and direct emissions. If finalized the deferral would thus be a significant departure from EPA’s historic approach, and contradictory of its current regulations (for which amendments have not been proposed).

potential to emit.” 42 USC § 7479(1)(emphasis added). Similarly, Section 165(a) of the Act requires that a facility’s permit state the “*emission* limitations for such facility,” and applies BACT for each pollutant “*emitted from or which results from* such facility.” 42 U.S.C. §§ 7475(a)(1), (a)(4)(emphasis added). In other words, if the relevant threshold is met by a facility’s at the stack and fugitive emissions, compliance with the BACT requirement is mandatory:

No major emitting facility . . . may be constructed in any area . . . *unless . . .* the proposed facility is subject to the best available control technology for each pollutant subject to regulation under this chapter emitted from, or which results from, such facility.

42 U.S.C. § 7475(a)(1).

Biogenic CO<sub>2</sub> (as defined by EPA in this proposal), is a product of fuel combustion, and emitted both at the stack and as fugitive emissions from stationary combustion sources. There is nothing about biogenic CO<sub>2</sub> emissions that justifies the radical departure proposed by EPA from the statute’s permitting framework. Indeed, as EPA correctly notes, “once CO<sub>2</sub> is emitted to the atmosphere, it is not possible to distinguish between the radiative forcing associated with a molecule of CO<sub>2</sub> originating from a biogenic source and one originating from the combustion of fossil fuel.” 76 Fed. Reg. 15,254. In short, CO<sub>2</sub>, regardless of its source, is an air pollutant, and it is the amount of a facility’s emissions that determines permit program “applicability”—that is, whether the facility must hold PSD and Title V permits.

b. EPA’s Proposal to Redefine “Subject to Regulation” To Exclude Biogenic CO<sub>2</sub> Is Not Supported.

EPA now seeks to exempt *some* CO<sub>2</sub> emissions – those generated from the burning of biomass – from PSD and Title V permitting through yet another revision of the regulatory definition of the statutory term “subject to regulation.”<sup>11</sup> In the Tailoring Rule, EPA re-defined “subject to regulation” to temporarily increase the statutory threshold for all greenhouse gas emissions;<sup>12</sup> now, EPA

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<sup>11</sup> Sections 165(a)(4) and 169(3) require the use of BACT to limit emissions “for each pollutant *subject to regulation* under [the Act].” 42 U.S.C. §§ 7475(a)(4), 7479(3) (emphasis added).

<sup>12</sup> The Clean Air Act defines “major source” as any source of a type belonging to 28 source categories and which emits or has the potential to emit 100 tons per year of any air pollutant, or a source of any other type which

proposes to revise the term by splitting the regulated pollutant itself into particular molecules – all the while admitting that the proposed-to-be unregulated molecules are no different than the regulated ones. 76 Fed. Reg. 15,254. However long and tortuous the history of EPA’s interpretation of the phrase “subject to regulation”, there can be no doubt that CO<sub>2</sub> indeed is now “subject to regulation.”

And the history of EPA’s interpretation of the statutory phrase “subject to regulation” is, indeed, long and tortuous. EPA provided a “final” interpretation of the phrase “subject to regulation” as used in sections 165(a)(4) and 169(3) as early as 1978, when it stated that “subject to regulation under this Act” encompasses any pollutant regulated in Subchapter C of Title 40 of the Code of Federal Regulations for any source type. 43 Fed. Reg. 26,388, 26,397 (June 19, 1978). EPA, however, sought to disavow this definition when it was first called upon to require permits for sources emitting CO CO<sub>2</sub> and was confronted with the fact that this pollutant had been “subject to regulation” since 1993 through express monitoring and reporting regulations in Subchapter C of Title 40 of the Code of Federal Regulations. *See* 58 Fed. Reg. 3590, 3650 (Jan. 11, 1993); 40 C.F.R. Part 75 (*see* 40 C.F.R. §§ 75.1, 75.10(a)(3), 75.57, 75.60-64). See In re Deseret Power Electric Cooperative, PSD Appeal No 07-03, Slip Op. at 41, (EAB, Nov. 13, 2008) (“Deseret”). In a proposed reconsideration prompted by that case, EPA claimed that monitoring and reporting regulations are an insufficient trigger, and that a pollutant instead becomes “subject to regulation” only through some other regulation that actually “controls or restricts” the pollutant’s emissions. Prevention of Significant Deterioration: Reconsideration of Interpretation of Regulation That Determine Pollutants Covered by the Federal PSD Permit Program, 74 Fed. Reg. 51,535 (Oct. 7, 2009) (“Proposed Reconsideration”). Based on this definition EPA announced in the Proposed Reconsideration that CO<sub>2</sub> would become subject to regulation, and thus subject to PSD permitting, upon promulgation of its rulemaking limiting CO<sub>2</sub> emissions from passenger vehicles and light duty trucks (the “Vehicle Rule”) in April 2010. 74 Fed. Reg. 51,547; 75 Fed. Reg. 55,299.

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emits or has the potential to emit any air pollutant in amounts equal to or greater than 250 tons per year. 42 U.S.C. § 7479(1). The Tailoring Rule temporarily substituted emission limitations of 75,000 and 100,000 tons per year (depending on the source’s need for permits for other pollutants).

When that date arrived, however, EPA further delayed permitting program applicability by once again revising the term’s definition, claiming that CO<sub>2</sub> would become subject to regulation only when the Vehicle Rule had “taken effect” by “affecting” the “regulated activity” (rather than upon the Vehicle Rule’s promulgation or its effective date). Reconsideration of Interpretation of Regulations That Determine Pollutants Covered by Clean Air Act Permitting Programs (the “Reconsideration”), 75 Fed. Reg. 17,004, 17,016 (April 2, 2010). EPA applied this otherwise incomprehensible definition to CO<sub>2</sub> emissions by announcing that the Vehicle Rule would “take effect” only when the “regulated activity” (allegedly consisting only of the sale of compliant vehicles, but not of their manufacture) would be “affected”: on January 2, 2011. *Id.* at 17,020.

EPA next finalized the Tailoring Rule, again pushing back the relevant dates for greenhouse gas permitting applicability for many sources to July, 2011, July 2013 and July 2016, depending on successively decreasing “major emitting facility” emission thresholds. EPA premised those revisions in part on claims of “administrative necessity” and “absurd results,” taking extreme care to provide evidentiary support for its assertion that commencing greenhouse gas pollution permitting at the statutory thresholds would be an administrative impossibility and would give rise to the “absurd result” that permitting would be shut down altogether. Tailoring Rule, 75 Fed. Reg. 31,517, 31,533. The Agency determined, however, that it had no basis for exempting biogenic CO<sub>2</sub> emissions from the permitting requirements of the statute based on these doctrines.<sup>13</sup> As shown below, that conclusion remains correct.

Now, in a post hoc exercise which at best, changes, and at worst, contradicts the Tailoring Rule and its accompanying regulations issued less than a year ago, EPA proposes to revise “subject to regulation” yet again. EPA does this even

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<sup>13</sup> In response to comments to the proposed Tailoring Rule, received from NAFO and others arguing that the CO<sub>2</sub> produced from biomass combustion is “carbon neutral” and thus should not be subject to permitting requirements, EPA-HQ-OAR-0517-5070.1, the Agency noted in the final Tailoring Rule that neither the absurd results nor the administrative necessity rationales justify departure from the plain statutory language requiring PSD and Title V permitting for biogenic CO<sub>2</sub> emissions. 76 Fed. Reg 15,256-257.

though it admits that “[a]s currently written, the PSD and Title V regulations apply to biogenic CO<sub>2</sub> emissions from major sources or major modifications at such sources according to provisions included under the definition of ‘subject to regulation’ in the SIP regulations at 40 CFR 51.166 and the Title V State program regulations at 40 CFR 70.2, as well as the Federal Implementation Plan requirements at 40 CFR 52.21 and the Title V Federal program regulations at 40 CFR 71.2.” 76 Fed. Reg. 15,260. Indeed they do – the air pollutant is CO<sub>2</sub>, not “fossil-fuel-based CO<sub>2</sub>,” and under *any* reading of the term “subject to regulation under the Act,” that pollutant is now subject to permitting.

But EPA claims it is authorized to further “defer application of the PSD and Title V programs for … sources of biogenic CO<sub>2</sub>.” *Id.* Stretching “subject to regulation” for CO<sub>2</sub> even more, EPA now deletes particular CO<sub>2</sub> molecules from the definition altogether. *Id.* at 15,265-266. Plainly, this proposal is driven purely by EPA’s hoped-for policy outcome. It is not the result of analysis or interpretation of the terms “air pollutant” and “subject to regulation” in Sections 165(a)(4) and 169(3), or of any other statutory language anywhere else in the Clean Air Act, or an examination of Congressional intent. In fact, EPA does not devote a single sentence to trying to justify its rulemaking based on such an inquiry. Instead, EPA seeks to justify its actions solely based on the doctrines of “de minimis,” “administrative necessity,” and “absurd results.” However, as shown below, the Agency does not remotely meet the burdens required to justify its proposal under any of these doctrines of statutory construction.

c. EPA has not met its heavy burden of proof under the “de minimis” doctrine.

The Agency claims that the blanket exemption it seeks for all biogenic CO<sub>2</sub> is justified by its authority to create de minimis exemptions. EPA asserts—though without any explanation or evidence—that the effects of unregulated biogenic feedstocks are trivial because the carbon cycle would somehow eliminate their atmospheric impacts over time – more specifically, EPA says “at least some biomass feedstocks” have a negligible impact on the carbon cycle, and that emissions from these feedstocks are de minimis. 76 Fed. Reg. at 15,261. EPA further asserts that it might one day decide that other biomass feedstocks have similarly “negligible” effects, and that if this were to occur, exercising its regulatory authority over these emissions might prove to have yielded trivial gain.

Id. Neither of these claims, even if supported, would be legally sufficient justification for an immediate *blanket* exemption from regulatory requirements; in fact, EPA provides *no* factual support for any exemption at all – of any size or temporal extent.

Indeed, EPA knows, or should know that the weight of the current and thorough science overwhelmingly demonstrates that in fact biomass feedstocks are not “carbon neutral,”<sup>14</sup> and do not have “negligible effects” when combusted for energy production, particularly during the near term timeframes that are most meaningful in addressing climate change. These studies have been on record before the Agency at least since the Fall of 2010, as a result of EPA’s “Call for Information on Greenhouse Gas Emissions Associated with Bioenergy and Other Biogenic Sources,” 75 Fed. Reg. 41,173 (July 15, 2010) (“CFI”). The record in that docket<sup>15</sup> amply demonstrates that near-term CO<sub>2</sub> emissions from stationary sources that combust biomass are greater than then emissions from sources that combust fossil fuels (for the same energy output). Indeed, the most recent and thorough of the studies in that record overwhelmingly demonstrate that biomass burned for energy generation is not “always carbon neutral”.<sup>16</sup>

i. EPA’s Authority to create “de minimis” exemptions from statutory requirements is extremely limited.

The de minimis doctrine -- based in the maxim “*de minimis non curat lex*” (“the law cares not for trifles”) – truly is reserved for trifling matters. And, although “[c]ategorical exemptions may be permissible as an exercise of agency power … to overlook circumstances that in context may fairly be considered de minimis,” or trifling, Association of Administrative Law Judges v. FLRA, 397 F.3d 957, 961 (D.C. Cir. 2005), EPA bears the burden of proving that any such

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<sup>14</sup> EPA’s proposal is made as the result of its decision to reconsider the Tailoring Rule requirements for the treatment of biomass CO<sub>2</sub>, in response to a Petition for Reconsideration of the rule filed by the National Alliance of Forest Owners (NAFO). 76 Fed. Reg. 15,251. NAFO’s Petition asserts its belief that biomass combustion is part of a “carbon neutral cycle” because “production and combustion of [biomass] fuels does not increase atmospheric carbon dioxide levels.” NAFO Petition to Reconsider and Stay the Tailoring Rule at 3 (July 30, 2010).

<sup>15</sup> Docket No. EPA-HQ-OAR-2101-0560.

<sup>16</sup> See CFI Docket Nos. EPA-HQ-OAR-2010-0560-0066.2, EPA-HQ-OAR-2010-0560-0157.1, and EPA-HQ-OAR-2010-0560-0432.1 (comment submittals covering recent peer reviewed studies demonstrating that all biomass does not provide carbon benefits, particularly in the near term). These materials have been incorporated into the record for this proposal, see EPA-HQ-OAR-2011-0083-0003.

departure from the language and the structure (the ‘legislative design’) of the statute truly is a trifle or inconsequential – and EPA’s burden is a high one. “Determination[s] of when matters are truly de minimis naturally will turn on the assessment of particular circumstances, and the agency will bear the burden of making the required showing.” Alabama Power, 636 F.2d 323, 360 (D.C. Cir. 1979); see also NRDC v. EPA, 966 F.2d 1292, 1306 (9th Cir. 1992) (rejecting EPA’s attempt to create a de minimis exemption because of lack of data showing that regulation would be of “trivial or no value”).

Furthermore, the authority for such exemptions is limited to creating a standard only to the minimum extent necessary “to alleviate ‘severe’ administrative and economic burdens by lifting requirements on ‘minuscule’ emission increases.” New York v. EPA, 443 F.3d 880, 888 (D.C. Cir. 2006) (quoting and citing Alabama Power, 636 F.2d at 405, as basis for vacatur of a regulatory provision that would have allowed modified sources with non-de minimis emissions increases to avoid statutory control requirements).

The de minimis doctrine does not provide an expansive “ability to depart from the statute, but rather a tool to be used in implementing the legislative design ... to provide an exemption when the burdens of regulation yield a gain of trivial or no value.” AA LJ v. FLRA, 397 F.3d at 962 (quoting, EDF v. EPA, 82 F.3d 451, 465-66 (D.C. Cir. 1996)); see also Public Citizen v. FTC, 869 F.2d 1541, 1556-57 (D.C. Cir. 1989) (doctrine permits exemptions when application of statute would have no benefit). Therefore, “the doctrine obviously is not available to *thwart* a statutory command.... Nor is an agency to apply it on a finding merely that regulatory costs exceed regulatory benefits.” Public Citizen v. Young, 831 F.2d 1108, 1113 (D.C. Cir. 1987) (quoting Alabama Power, 636 F.2d at 360).

- ii. EPA has not met its required burden of proof to support the blanket exemption on the ground that the exempted CO<sub>2</sub> emissions will be “de minimis” in context.

EPA has made no effort to show that all biogenic CO<sub>2</sub> emissions can be exempted from regulation because they are “trivial or inconsequential” in context. EPA states only that it “believes” it has the authority to entirely exclude all biogenic CO<sub>2</sub> emissions from the provisions of the PSD and Title V programs, on de minimis grounds, 76 Fed. Reg. at 15,260, but offers nothing more than this

“belief” as justification for its proposed exemption. EPA’s failure to provide the legally required support for this rationale demonstrates the unlawfulness of its proposed blanket exemption.

In fact, the science and engineering of bioenergy generation shows that for the same energy output, burning biomass emits much more carbon than burning fossil fuels. This is because biomass generally burns much less efficiently than fossil fuels, whatever the source of biomass – whether it be waste, whole trees, or purpose-grown crops, so that emissions at the stack are much greater than emissions at the stack from generating the same amount of energy using fossil fuels. The air permit from the proposed We Energies/Domtar biomass plant in Rothschild, WI, illustrates the enormous gap that exists between direct emissions from a biomass boiler and a natural gas boiler. A high efficiency gas-fired combined cycle plant will have a CO<sub>2</sub> emission rate of approximately 840 lbs CO<sub>2</sub>/MWH; an efficient, scrubbed new pulverized coal-fired plant will have CO<sub>2</sub> emissions rate of approximately 1885 lbs CO<sub>2</sub>/MWH.<sup>17</sup> At 3050 lb CO<sub>2</sub>/MWH, the Domtar plant’s permitted CO<sub>2</sub> emissions rate<sup>18</sup> is almost 400 percent higher than an efficient gas plant, and almost twice as high as the coal plant’s emissions.

EPA argues that *some* biomass feedstocks may have a negligible impact on the net carbon cycle, such as “residue material (e.g., sawdust from milling operations) that would have decomposed under natural circumstances in a relatively short period of time (e.g., 10–15 years).” 76 Fed. Reg. 15,261. This is insufficient scientific justification for a total exemption for all biomass feedstocks. Putting that point aside, EPA has not even justified a limited exemption – it has not shown either that “residue” materials actually do decompose in a short period of time, nor that the instantaneous emissions from biomass combustion are in some way analogous to the emissions that occur over the course of a 10-15 year decomposition period. EPA must at the very least make that showing to meet its

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<sup>17</sup> Estimates of the CO<sub>2</sub> emissions from gas and coal-fired power plants are based on the Energy Information Administration’s “Assumptions to the Annual Energy Outlook 2010”, at 91, Table 8.2 (Report #:DOE/EIA-0554(2010) (Release date: April 9, 2010), available at <http://ftp.eia.doe.gov/oiaf/aeo/assumption/index.html>.

<sup>18</sup> Air pollution control construction permit #10-SDD-058 for We Energies – Biomass Fueled Cogeneration Facility, Rothschild, WI, at page 26. Issued March 28, 2011. Wisconsin Department of Natural Resources, available at [http://www.we-energies.com/environmental/biomass/wdnr\\_airpermit\\_biomass032811.pdf](http://www.we-energies.com/environmental/biomass/wdnr_airpermit_biomass032811.pdf).

burden to justify an exemption on the grounds that the amount of CO<sub>2</sub> emitted from residue material is de minimis in context.

In any event, despite relying on the proposition that “residues” are carbon neutral to justify a complete exemption for all biogenic CO<sub>2</sub>, the Agency has not demonstrated that “residue materials” constitute the sole or even predominant source of fuel for the current and future biomass industry. If a biomass facility does not just burn “residues” but instead relies on increased forest harvesting to provide fuel, the impact of the net forest loss will create CO<sub>2</sub> increases beyond those measured at the stack.

Until the last two or three years, when greater scientific scrutiny has been brought to bear on the question, harvesting trees for fuel was widely *assumed* to be “carbon neutral” based on an uncritical acceptance that as long as forests were allowed to regrow, carbon released by harvesting and combustion would be resequestered.<sup>19</sup> EPA sought input on this theory when it issued its Call for Information on approaches to biogenic carbon accounting, soliciting views on current and projected C sequestration rates in lands used to produce bioenergy feedstocks.<sup>20</sup> That same “old view” is also reflected in EPA’s current proposal. 76 Fed. Reg. at 15,257 (questioning “whether some or all of a source’s biogenic CO<sub>2</sub> emissions could be discounted based on a determination that they are canceled out by the CO<sub>2</sub> absorption associated with growing the fuel.”).

But, as even EPA acknowledges in its March 2011 BACT Guidance for biogenic emissions,<sup>21</sup> this assumption of biomass carbon neutrality based on complete resequestration of combustion carbon into new growth breaks down when the “business as usual” (“BAU”) scenario is changed. Recent science demonstrates that increased forest harvesting to meet increased demand for fuel

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<sup>19</sup> See for example, EPA’s own treatment of biomass as producing power “with an environmental profile superior to conventional power technologies [that] produce[s] no anthropogenic (human caused) greenhouse gas emissions.” (<http://www.epa.gov/greenpower/gpmarket/index.htm>). The Agency states that although biomass produces biogenic emissions, these are “balanced by the natural uptake of CO<sub>2</sub> by growing vegetation, resulting in a net zero contribution of CO<sub>2</sub> emissions to the atmosphere.”

<sup>20</sup> Call for Information, 75 Fed. Reg. 41,173 (July 15, 2010).

<sup>21</sup> Guidance for Determining Best Available Control Technology for Reducing Carbon Dioxide Emissions From Bioenergy Production (March 2011).

*dramatically increases net CO<sub>2</sub> emissions above the existing baseline.<sup>22</sup>* Searchinger, et al. in their “Critical Climate Accounting Error” study,<sup>23</sup> and Johnson’s “Goodbye to Carbon Neutral” paper<sup>24</sup> point out the critical importance of taking ongoing forest carbon sequestration into account when calculating net carbon emissions from biomass energy. The Manomet Study<sup>25</sup> demonstrated using modeling that the combination of greater carbon emissions per unit energy from biomass than fossil fuels, *combined with* the lost forest carbon sequestration associated with additional fuel harvesting, produce net CO<sub>2</sub> emissions that greatly exceeded those from fossil fuels – a “carbon debt” that takes decades to more than a century to pay off.<sup>26</sup> Other studies have reached similar conclusions, including the European “bioenergy carbon bomb” study from Joanneum<sup>27</sup> and the 2011 work by McKechnie, et al., who conclude that “using standing trees for bioenergy immediately transfers carbon to the atmosphere and provides a relatively smaller GHG benefit from displacing coal or gasoline, increasing overall emissions for several decades.”<sup>28</sup>

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<sup>22</sup> EPA’s March 2011 Guidance states: “if certain activities, such as logging, are accelerated in a particular regions over a certain period of time, and associated emissions are thereby increased, then sequestration on land will decline and net atmospheric carbon stocks will increase over the BAU case.” *Id.* at 22.

<sup>23</sup> Searchinger, et al., Fixing a critical climate accounting error, 326 Science 527-528 (2009).

<sup>24</sup> Johnson, Goodbye to Carbon Neutral: Getting biomass footprints right, 29 Environmental Impact Assessment Rev. 165-168 (2008)(attached as Exh. 5).

<sup>25</sup> Manomet Center for Conservation Sciences, Massachusetts Biomass Sustainability and Carbon Policy Study, Report to the Commonwealth of Massachusetts Department of Energy Resources (Walker, Ed.) (National Capital Initiative Report No. NCI-2010-03)(2010). Available at [http://www.manomet.org/sites/manomet.org/files/Manomet\\_Biomass\\_Report\\_Full\\_LoRez.pdf](http://www.manomet.org/sites/manomet.org/files/Manomet_Biomass_Report_Full_LoRez.pdf).

<sup>26</sup> A biomass industry argument sometimes heard, however, is that as long as forests are growing and sequestering carbon on the landscape as a whole, this compensates for the carbon emitted by cutting and burning trees. As several experts pointed out in a recent letter to the state of Washington, however, “Using wood for power generation that would otherwise be added to forests thus not only increases the rate of CO<sub>2</sub> emissions per kilowatt-hour but also reduces the critical forest carbon “sink”. If forests harvested for energy are allowed to re-grow, that re-growth absorbs carbon dioxide and helps to offset the carbon released from the initial burning of the trees for energy. But paying back the carbon released will nearly always take many decades, and in some cases centuries.” Letter from Mark Harmon, Tim Searchinger, and Bill Moomaw to the Washington State Legislature, February 2, 2011. Available at [http://www.pfpi.net/wp-content/uploads/2011/03/Harmon\\_Searchinger\\_Moomaw-Letter.pdf](http://www.pfpi.net/wp-content/uploads/2011/03/Harmon_Searchinger_Moomaw-Letter.pdf).

<sup>27</sup> Joanneum , Birdlife International and European Environmental Bureau, Bioenergy: a carbon accounting time bomb (June 2010) (attached as Exh.6).

<sup>28</sup> McKechnie, J., et al., Forest Bioenergy or Forest Carbon? Assessing Trade-Offs in Greenhouse Gas Mitigation with Wood-Based Fuels. Environ. Sci. Technol. 45(2), 789-795 (2011). Available at <http://pubs.acs.org/doi/abs/10.1021/es1024004>

Energy Information Administration data for biomass fuel consumption in 2009 demonstrates that the existing biomass power industry is already a significant source of CO<sub>2</sub>. Making standard assumptions about the carbon content and moisture content of wood pulping liquors and wood solids used as fuel,<sup>29</sup> Table 1. shows that CO<sub>2</sub> emissions from the existing industry are significant.<sup>30</sup>

Table 1. Fuel use, heat input, and CO<sub>2</sub> emissions from bioenergy production reported to the Energy Information Administration, 2009. (Source: Energy Information Administration. 2009 EIA-923 Monthly Time Series File, Revised April 2011. Fuel and heat input data are as reported by EPA; CO<sub>2</sub> emissions are calculated using standard assumptions for Carbon and moisture contents of materials burned)

<b>Fuel type</b>	<b>fuel (tons)</b>	<b>heat input (mmbtu)</b>	<b>CO2 emissions (tons)</b>
Agricultural fuels	4,252,601	32,312,178	5,613,433
Wood solids	48,165,174	489,243,148	48,566,550
Pulping liquors	57,011,003	645,150,689	32,923,854
"other" biomass solids	1,981,226	20,853,306	1,997,736
<b>Total</b>	<b>111,410,004</b>	<b>1,187,559,321</b>	<b>89,101,573</b>

Total CO<sub>2</sub> emissions from the current biomass industry as it operated in 2009 were equivalent to the combined reported non-biomass power sector emissions of CO<sub>2</sub> from RI, SD, DE, AK, ME, NH, CT, HI, OR, WA, and NJ.<sup>31</sup> The significance of these emissions to particular regions is illustrated in Maine. Total power sector emissions in Maine are reported at 5,196,592 tons by EIA, a figure that counts all biomass burning as zero emissions. However, emissions from biomass burning<sup>32</sup> in Maine added approximately another 6,207,336 tons of CO<sub>2</sub>,

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<sup>29</sup> Assumes for carbon and moisture content, respectively: pulping liquors (35%, 55%), wood (50%, 45%), agricultural materials (45%, 20%). "Other" biomass solids were modeled as wood, but since this category is quite small, any error is also small.

<sup>30</sup> Energy Information Administration. 2009 EIA 923 Monthly Time Series File. Sources: EIA-923 AND eia-860. Note that this table does not include emissions from the portion of municipal waste defined as "biomass."

<sup>31</sup> Energy Information Administration. State Historical Tables for 2009: emission\_state\_2009.xls. Revised Jan 4, 2011. These "reported" emissions do not include emissions from biomass energy generation..

<sup>32</sup> This figure includes wood and wood-derived fuels, only; excludes municipal waste combustion.

more than doubling the total that was reported.<sup>33</sup> Maine's forest cutting practices allow clear cuts of up to 250 acres for "forest products," the definition of which includes biomass fuel.<sup>34</sup>

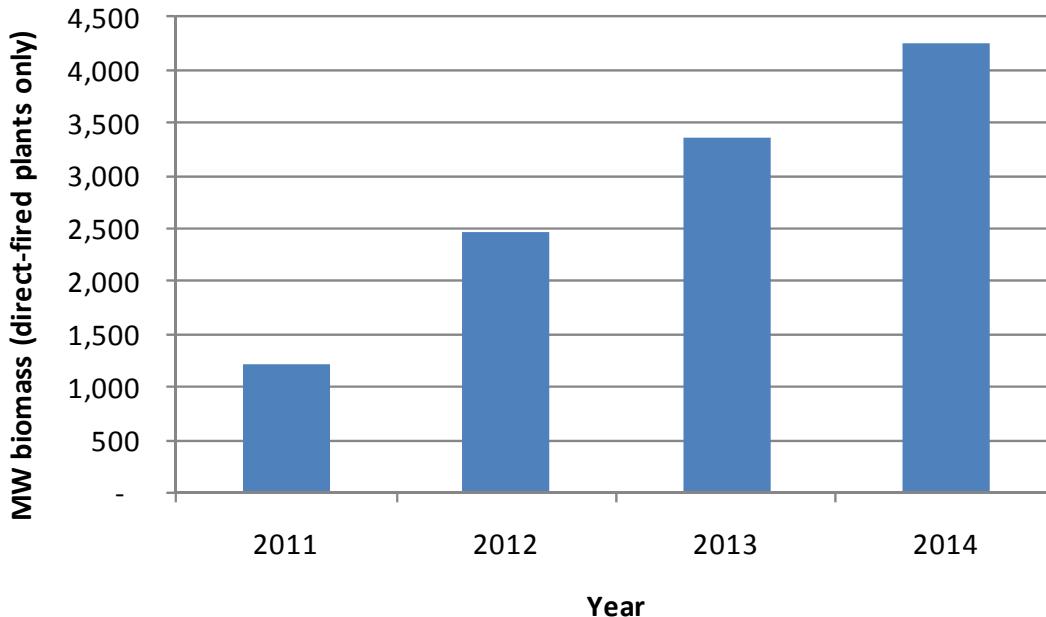


FIGURE 1. -- Cumulative MW biomass generation capacity brought online by year  
(Source: RISI , Inc., North American Wood Biomass Projects Database (February 2011))

And EPA is simply incorrect in suggesting that this new demand for biomass fuel will be met by "residues" and therefore that the impact on carbon emissions will be de minimis. 76 Fed. Reg. at 15,259, 15,261. Putting aside the temporal question of whether immediate burning of residues that would have taken 10-15 years or more to decay constitutes "carbon neutrality", there are simply not enough "residues" to fuel the projected growth in the industry in any event. New biomass facilities will demonstrably require increased forest harvesting, which has been

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<sup>33</sup> Emissions from biomass burning calculated using same assumptions as above.

<sup>34</sup> Maine Department of Conservation. 1999. Forest regeneration and clearcutting standards. Available at <http://www.maine.gov/doc/mfs/pubs/htm/fpafnl.htm#SECTION 5>.

shown by the best and most current science to represent a significant increase in carbon emissions above fossil fuels.

Industry sources admit that residues and wastes are not sufficient to meet demand when biomass is used for energy production. In pre-hearing testimony submitted to the North Carolina Utilities Commission, Duke Energy representatives make clear that the company requires large amounts of additional tree harvesting to meet its so-called “renewable” energy generation goals, and that logging residues are clearly insufficient and otherwise undesirable as fuel. The company stated:

The Company’s strategy for using wood biomass to comply with its REPS obligations includes efforts to co-fire wood fuel with fossil fuel at existing Company facilities and to repower units at certain Company facilities to burn only wood fuel to generate electricity.<sup>35</sup>

Asked how a limited definition of biomass fuels –to encompass only mill and forestry wastes would impact the company’s plans, Duke answered that if this occurred,

Duke Energy Carolinas would be forced to significantly alter its REPs compliance strategy if the definition of “biomass resource” was interpreted as a matter of law to exclude all other wood fuel sources except “wood waste”. As illustrated by the testimony of Company Witness Steward, there is already limited “wood waste” supply in the marketplace, and such a limiting interpretation would create an artificial premium for that supply. Also as the supply of “wood waste” will be geographically dispersed, risks and limitation related to economical transport of fuel will further constrain actual supply. Depending upon the transport distances in relation to the generation facility sites, there may simply not be enough “wood waste” fuel available to support the relative needs at Company-owned or third party sites.<sup>36</sup>

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<sup>35</sup> Testimony of Owen A. Smith, Duke Energy Corporation, before the North Carolina Utilities Commission, In re: Registration Statements of Buck and Lee Steam Stations as renewable Energy Facilities Pursuant to Rule R8-66, Docket No. E-7, SUB 939 and SUB 940, at 4 (attached as Exh. 7).

<sup>36</sup> Id. at 9.

Existing industries that use wood, including some that burn biomass for energy, have also expressed concerns that new large biomass burning facilities will drive up the demand for wood.<sup>37</sup> And, contrary to EPA's assumptions, U.S. Forest Service data show residues are simply too scarce to meet emerging "energy wood" needs. Detailed data on wood resources and harvests from the Southern Research Station of the U.S. Forest Service demonstrate that recoverable residues are indeed spread thinly across the landscape. For example, in North Carolina, the average density of harvestable<sup>38</sup> residues is 12.27 tons per acre, and is 4.76 tons/acre in South Carolina. But Duke Carolinas' combined coal plant capacity in North Carolina and South Carolina is 7,573 MW (nameplate).<sup>39</sup> If it were assumed, as EPA does, that wood waste would be used, repowering even 10% of Duke's coal capacity with biomass would require 7.3 million tons of wood waste,<sup>40</sup> or the collected residues from over 861,000 acres per year. By comparison, that figure is slightly less than the approximately 869,000 acres cut per year in the two states combined.<sup>41</sup>

In Florida, new demand for biomass fuel from six proposed plants will be about 4,847,625 tons per year, on top of the 1.2 million tons a year harvested by the Cottondale pellet plant.<sup>42</sup> Forest Service data indicate a logging residue density of about 4.46 tons per acre, thus meeting the need for biomass fuel would require collecting residues on 1,086,911 acres per year. However, all types of current forest cutting in Florida, including final harvest, partial harvest, shelterwood, commercial thinning and timber stand improvement, constitute only about 331,000 acres per year.<sup>43</sup>

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<sup>37</sup> Initial Post-hearing Brief of Packaging Corp. of America Before the P Service Commission of Wisconsin, Docket No. 6630-CE-305 (Dec. 23, 2010)(attached as Exh. 8).

<sup>38</sup> Conner, R. and Johnson, T. Estimates of biomass in logging residue and standing residual inventory following tree-harvest activity on timberland acres in the Southern Region. USDA Forest Service Southern Research Station, Resource Bulletin SRS-169 (January, 2011), at page 21 (attached as Exh. 9). The review attempts to quantify wood that is recoverable for use as fuel and thus caps recovery at 60% of residues, which is higher than Duke Energy estimated was available.

<sup>39</sup> EIA. Existing generating units in the United States by State, Company and Plant, 2008.

<sup>40</sup> Wood use is calculated assuming plant availability of 95%, plant efficiency of 31%, wood moisture content at 45%, higher heating value of 4,730 btu/lb.

<sup>41</sup> Conner and Johnson, supra n. 38, at 17.

<sup>42</sup> RISI, Inc., North American Wood Biomass Projects Database (2011).

<sup>43</sup> Conner and Johnson supra n. 38 at 17.

And mill and forest residues are already allocated to other uses within the existing biomass industry. According to US Forest Service data, only about 1.5% mill wastes remained unutilized nationally<sup>44</sup> as of 2006. Since that time, growth in the pellet industry, which also utilizes mill waste, is likely to have reduced even further the supply of mill waste available for use at direct-fired biomass plants.

All of this data demonstrates the pressure to *increase* forest harvesting and wood production – even before EPA’s proposed complete exemption for biomass facilities is finalized. But even assuming that existing demands were zero, new demand for wood to fuel proposed facilities would exceed the currently available forest residues in the United States – new harvesting and the associated increase in CO<sub>2</sub> emissions clearly will occur. According to the Forest Service,<sup>45</sup> approximately 100 million green tons of forest residues are generated each year, of which at most 50% are considered to be available and collectable. According to industry data,<sup>46</sup> however, new wood demand for wood pellet manufacture (22,381,200 green tons), biofuels feedstock (9,690,000 green tons) and direct-fired biomass facilities (57,462,183 green tons) significantly exceeds the availability of logging residues.

Nor do these figures include wood demand by co-firing at coal plants. A significant ramp-up in this use of biomass resources also can be expected in response to a regulatory exemption. In Figure 2., the “high coal cost” scenario is a proxy for costs associated with regulatory requirements to mitigate only fossil CO<sub>2</sub> emissions; under this scenario, that is with an exemption for biomass, co-firing of biomass (and biomass CO<sub>2</sub>) increases significantly relative to the reference case.

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<sup>44</sup> Smith, W.B., et al., Forest Resources of the United States, 2007. United States Forest Service Gen.Tech Report WO-78.(December 2008)(attached as Exh.10).

<sup>45</sup> Id.

<sup>46</sup> RISI, Inc., supra 42.

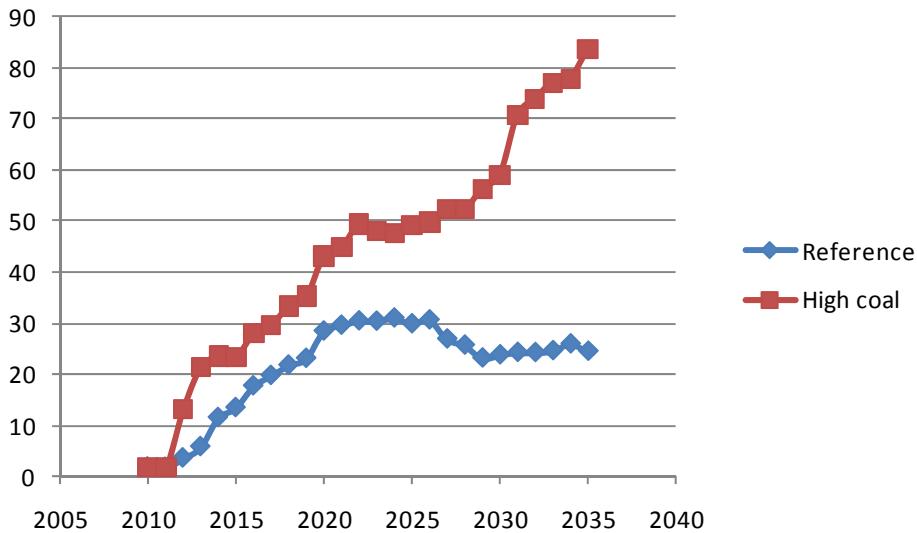


Figure 2. EIA's projected build-out of biomass power generation (expressed in billion KWH) under the reference and "high coal cost" scenarios. (Source: EIA National Energy Modeling System, AEO2011, renewable energy generation).

How much wood is required for co-firing? Providing 5% of the annual heat input at the 660 MW Killen Station coal plant in Adams County, Ohio, with wood is estimated to require 185,000 tons of biomass,<sup>47</sup> an amount of wood equivalent to that provided by clearcutting 2,050 acres of Ohio forests per year.<sup>48</sup>

In any event, EPA has not shown, as it must, that burning forestry wastes for energy production, even if such wastes were available in the amounts needed, would yield only "de minimis" or trivial net CO<sub>2</sub> emissions. Burning biomass, even residues, *instantly* transfers more carbon to the air than burning fossil fuels. In fact, decomposition takes time – therefore it is not legitimate for EPA to treat CO<sub>2</sub> emissions from burning waste wood as if they achieve instant parity with the emissions that would occur if decomposition were occurring instead. The

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<sup>47</sup> Ohio Environmental Protection Agency: Final air pollution permit-to-install for Dayton Power and Light Killen Generating Station. PERMIT No. P0106805 (Dec. 29, 2010), available at [http://wwwapp.epa.ohi.gov/dapc/permits\\_issued427961.pdf](http://wwwapp.epa.ohi.gov/dapc/permits_issued427961.pdf)

<sup>48</sup> Assumes approximately 88 green tons per acre standing biomass in Ohio's forests.

assumption that decomposition happens swiftly and that net emissions from burning and decomposition quickly achieve parity is not borne out by the science. Decomposition is a complex process that varies with different wood types, climate, nutrient availability and the decomposer community. But from the following chart, which describes the percent mass remaining of decomposing wood through time and which models a range of reasonable values for decomposition rate constants ( $k$ ) representing these factors, it is evident that 10 to 30 years after harvest, significant amounts of decomposing material remain.

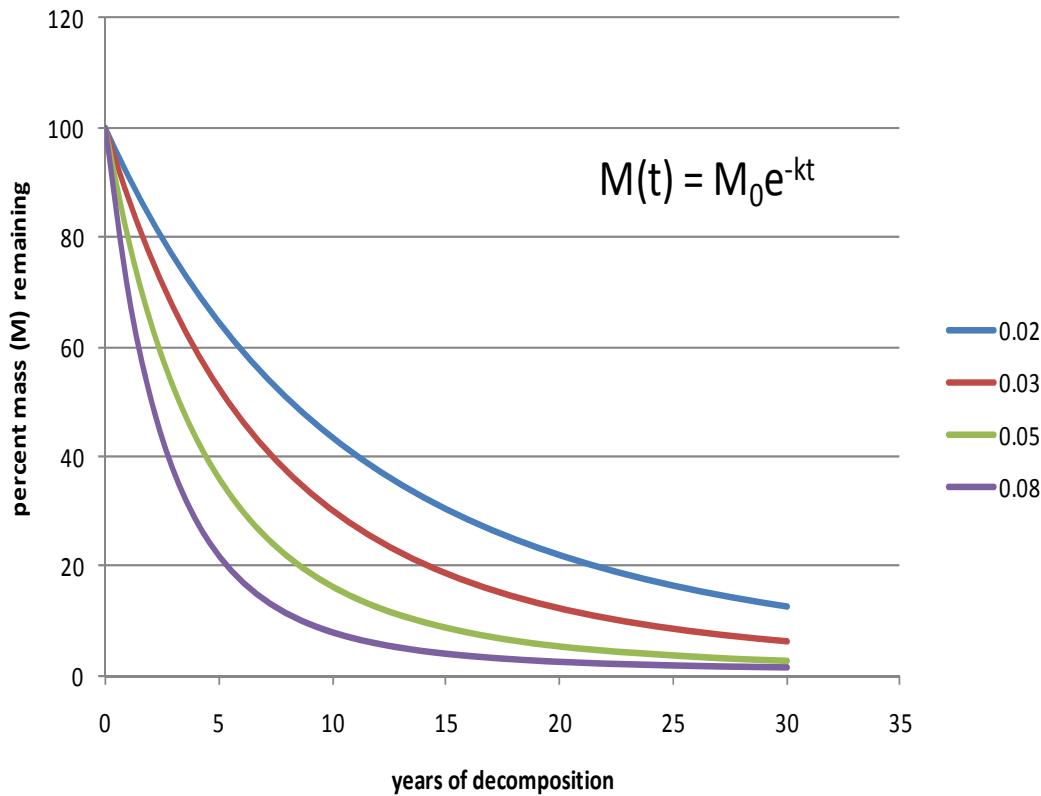


Figure 3. Decomposition curves showing influence of range of “ $k$ ” factors on percent of initial material remaining. Values of “ $k$ ” are representative of different forest types in North America.

Even the Finns, who use biomass energy intensively, are recognizing that harvesting residues for fuel has consequences for overall forest carbon balance. The synopsis of a study recently issued by the Finnish Environment Institute states:

Forest energy is not as low in emissions as is generally assumed. Harvesting of wood from forests reduces the quantity of atmospheric carbon accumulated in forests, even though growing forests do take up carbon from the atmosphere. Logging residue, such as branches, wood from first thinnings and tree stumps, would store carbon for a long time if left to rot in the forest. The climate benefit achieved by carbon storage is similar to that of, for instance, long lasting products made of wood.<sup>49</sup>

EPA's assertion that burning "dead trees" killed by mountain pine beetles would "clearly reduce CO<sub>2</sub> emissions," 76 Fed. Reg. at 15,262, is completely unsupported. In fact, larger wood masses like standing dead trees take far longer to decompose than logging residues.<sup>50</sup> EPA thus completely misstates the current scientific understanding of decomposition.

Net carbon emissions over time can be lower when energy crops or agricultural residues are used as fuel, provided this does not involve land-use change with substantial net emissions of carbon (such as replacing native forests to grow energy crops). However, EPA has not provided a single example of combustion of biomass that actually reduces greenhouse gas emissions. The example provided, that of harvesting beetle-killed wood for fuel, is not supported by recent studies, which indicate that the severity of crown fires may be reduced in beetle-killed stands relative to undisturbed stands.<sup>51</sup> The net carbon emissions from

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<sup>49</sup> Finnish Environment Institute, "Weaker carbon sink capacity of forests undermines the majority of benefits from forest energy." (February 1, 2011), available at <http://www.ymparisto.fi/default.asp?contentid=375136&lan=en&clan=en>

<sup>50</sup> Repo, et al., Indirect Carbon Dioxide Emissions from Producing Bioenergy from Forest Residues, GLOBAL CHANGE BIOLOGY BIOENERGY (2010) (doi: 10.1111/j.1757-1707.2010.01065.x ) at 5 (attached as Exh. 11).

<sup>51</sup> Martin Simard, et al., 2011, Do Mountain Pine Beetle Outbreaks Change the Probability of Active Crown Fire in Lodgepole Pine Forests? Ecological Monographs 81(1) 3 – 24 (attached as Exh.12). Further support is offered in reports about the findings of a NASA study:

Preliminary analysis indicates that large fires do not appear to occur more often or with greater severity in forest tracts with beetle damage. In fact, in some cases, beetle-killed forest swaths may actually be less likely to burn. What they're discovering is in line with previous research on the subject. The results may seem at first counterintuitive, but make sense when considered more carefully. First, while green needles on trees appear to be more lush and harder to burn, they contain high levels very flammable volatile oils. When the needles die, those flammable oils begin to break down. As a result, depending on the weather conditions, dead needles may not be more likely to catch and sustain a fire than live needles.

Second, when beetles kill a lodgepole pine tree, the needles begin to fall off and decompose on the

beetle-killed trees left to decompose therefore are lower than has been assumed, even when these stands burn in a wildfire, a situation of finite probability which EPA treats as a certainty in its proposal.

The Manomet Study team concluded that even when only forestry residues are used as fuel, it still would take 30 years for net emissions from a utility-scale biomass facility to achieve parity with net emissions from electricity generation using natural gas. More than 90 years are required when “mixed” wood (which includes whole trees) is used.<sup>52</sup>

Again, assuming arguendo that the Agency is correct that net CO<sub>2</sub> emissions from either burning or decomposing waste wood are the same after 10 – 15 years (which is likely not the case), EPA has not adequately distinguished its proposed treatment of this purported future effect from its longstanding approach to regulating criteria pollutants. For example, NOx is regulated at the point and time of emission, but EPA does not ask the question of what the “net balance” of NOx will be at some point 10 – 30 years into the future, even though NOx does change after it is emitted. While saying that the situation is unique to GHG regulation, EPA provides no support or justification for this distinction.

- iii. EPA has not met its burden of proof to support the blanket exemption on grounds that regulating biogenic CO<sub>2</sub> will be of trivial or inconsequential value.

EPA offers nothing in the record for this proposal, or in any of the other docket materials EPA incorporates within this proposal,<sup>53</sup> to support a blanket exemption for all biogenic CO<sub>2</sub> on the basis that regulation would be of trivial value. To the contrary, as EPA must know, and as NAFO points out, the blanket

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forest floor relatively quickly. In a sense, the beetles are thinning the forest, and the naked trees left behind are essentially akin to large fire logs. However, just as you can't start a fire in a fireplace with just large logs and no kindling, wildfires are less likely to ignite and carry in a forest of dead tree trunks and low needle litter.

(Shoemaker, J., “NASA satellites reveal surprising connection between beetle attacks, wildfire,” (September 2010), available at <http://www.nasa.gov/topics/earth/features/beetles-fire.html#>.)

<sup>52</sup> Walker, T., “Manomet & biomass: moving beyond the soundbite,” (Presentation to USDA Bioelectricity and GHG Workshop, Washington, D.C.(November 15, 2010) Available at <http://www.fas.org/sgp/crs/misc/R41603.pdf>)

<sup>53</sup> See EPA-HQ-OAR-2011-0083-003.1 (incorporating other records into the docket for this proposal).

exemption EPA proposes will encourage a biomass industry boom -- it will create significant incentives to choose to build uncontrolled biomass sources rather than other kinds of truly renewable or low-carbon energy sources. According to NAFO's CEO, "the deferral would spur the market for biomass energy and increase the biomass sales of NAFO's members by removing the regulatory uncertainty and compliance costs that has inhibited capital investment in biomass energy facilities.... Wood to electricity facilities are expected to be a central component of renewable fuel portfolios across the country and total capacity is expected to increase four-fold during the next decade."<sup>54</sup>

Alternatively, NAFO agrees that requiring permitting for biomass-fueled facilities in the same way as for all other sources of CO<sub>2</sub>, would "reduce the demand for biomass products supplied by NAFO's members."<sup>55</sup> EPA clearly understands this – the Agency agrees that regulation of biogenic emissions would "discourage utilization of biomass feedstock as fuel" during the period of the exemption. 76 Fed. Reg. at 15,262.

What EPA does not explain, or prove why regulating biogenic emissions would be de minimis as an environmental matter – EPA does not show that there would not be any – or trivially – increased CO<sub>2</sub> emissions resulting from the growing biomass industry – nor does EPA show that encouraging the biomass boom, through its proposed blanket exemption, will in fact yield de minimis impacts. That is because EPA simply can't make that showing. As set forth above, EPA's proposed blanket exemption encourages the use of precisely the kinds of readily available biomass fuels, such as indiscriminately harvested whole green trees, that EPA already knows will result in higher CO<sub>2</sub> emissions in the near term. EPA's blanket exemption, far from having de minimis consequences, therefore will yield significant increases in uncontrolled biogenic CO<sub>2</sub> emissions.

Nor can EPA's identification of some unspecified subset of biomass feedstocks with purportedly de minimis climate impacts justify what is proposed: a

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<sup>54</sup> Declaration of David P. Tenny, National Alliance of Forest Owners ¶ 11.a., Center for Biological Diversity v. EPA, D.C. Cir. No. 11-1101 (filed April 28, 2011). (attached at Exh. 13).

<sup>55</sup> Id. ¶ 11.b.

blanket exemption for every conceivable form of biomass.<sup>56</sup> EPA’s assertions regarding feedstocks with “negligible” impacts are unsupported in any event. Nowhere does EPA describe the particular types of feedstocks it believes have de minimis climate impacts. At best, EPA provides a couple of examples of feedstocks that “would have decomposed under natural circumstances in a relatively short period of time (e.g., 10-15 years).” 76 Fed. Reg. 15,261. Yet EPA does not even attempt to explain why converting those materials to atmospheric CO<sub>2</sub> immediately—i.e., creating a 10-15 year period during which those molecules of CO<sub>2</sub> will be actively warming the climate—is “negligible” or de minimis. In fact, the short-term climate impacts of combusting such feedstocks may be highly significant given that climate studies show that global CO<sub>2</sub> emissions *must* peak within the next decade, and then decline significantly thereafter, in order to provide a fair chance of avoiding *catastrophic* climate change.<sup>57</sup> In that context, it is even more clear that EPA has not met its burden.

EPA’s assertion that regulation of all biomass emissions can be deferred because scientific study might reveal the existence of other “negligible” feedstocks is even more egregious. Mere speculation and conjecture about what might occur after further scientific review is not sufficient justification for a present blanket exemption from statutory requirements.

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<sup>56</sup> The extremely tentative nature of EPA’s assumptions are illustrated in the following passage from the proposal:

It appears that the potential may exist for EPA to determine that other types of biomass feedstocks would have a negligible impact on the net carbon cycle impact after further detailed examination of the science associated with biogenic CO<sub>2</sub> emissions. If EPA were to require all bioenergy facilities to limit emissions of CO<sub>2</sub> before this assessment is complete, it may later determine that such actions have yielded trivial gain.

Proposed Rule, 76 Fed. Reg. 15,261 (emphasis added). In other words, EPA states that it does not know whether particular biogenic CO<sub>2</sub> emissions do or do not satisfy its extra-statutory test of “net” carbon neutrality, and needs further study to find out. Yet, it proposes to sideline and ignore the entire Clean Air Act permitting process while it engages in those studies, because it appears that it could be that PSD permitting might yield trivial gain. EPA’s approach has the perverse effect of reversing the burden of proof -- and moreover, the entire proposition is absurd. If agencies could evade statutes on such flimsy hypotheses, their discretion would be unbounded and their usurpation of Congressional powers complete.

<sup>57</sup> UNEP, Emissions Gap Report, supra n.5.

iv. EPA’s Proposal, Stripped to Its most Essential Points, Is Entirely Made On EconomicCost/Benefit Grounds – Which Cannot Justify Divergence From Statutory Requirements.

Stripped to its essential points, EPA’s blanket exemption proposal is actually based on little more than a thinly disguised policy argument that regulatory costs exceed regulatory benefits – which is never sufficient, standing alone to justify a de minimis exemption. Public Citizen, 831 F.2d at 1113. EPA nakedly speculates that the permitting requirements of the statute might *someday* prove financially wasteful, should EPA conclude—following a scientific investigation that the agency has not yet conducted—that some unspecified biomass feedstocks might have a negligible carbon footprint. See, e.g., 76 Fed. Reg. 15,262 (stating “[w]e believe that it is *conceivable* that as a result of the scientific examination of biogenic CO<sub>2</sub> emissions . . . we *could* conclude that the net carbon cycle impact for some biomass feedstocks is negligible,” and that “burdensome” case-by-case analysis “may not be an optimal use of the limited resources of PSD and Title V permitting authorities.” (emphasis added)).

NAFO similarly asserts, in a related proceeding, that its member companies will “obtain substantial benefits” under a biomass CO<sub>2</sub> exemption, and that biomass energy projects would be at risk of cancellation or delay if the exemption is not finalized.<sup>58</sup> But these again are purely economic arguments.<sup>59</sup> NAFO also makes assertions about reductions in capital investment, job losses, and other economic impacts of regulating the industry.<sup>60</sup> Even if NAFO’s statements are true, there is absolutely no indication that they are any more true for the biomass industry than for any other industry that emits CO<sub>2</sub>, and is subject to EPA regulations. Nor can such arguments justify a departures from statutory requirements, on de minimis grounds. Public Citizen, 831 F.2d at 1113.

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<sup>58</sup> Unopposed Motion by National Alliance of Forest Owners For Leave To Intervene In Support of Respondent, at 9, Center for Biological Diversity v. EPA, D.C. Cir. No. 11-1101 (filed April 28, 2011) (“NAFO Motion”)(Exh.14).

<sup>59</sup> Tellingly, NAFO does not argue that there would be no environmental benefit from regulating the industry – it cannot say this truthfully.

<sup>60</sup> NAFO Motion. at 10. NAFO does not try to explain, nor can it, why if there is a real demand for energy production (rather than speculative demand for unregulated development fueled by a regulatory loophole), these jobs will be “lost” and not shifted over to or generated in some other truly renewable energy sector.

- d. EPA has not justified a blanket exemption for biogenic CO<sub>2</sub> on “administrative necessity” grounds.

EPA also claims that its proposal relies, “in part” on “the same rationale as EPA used to justify the Tailoring Rule’s phase-in approach,” namely the “administrative necessity” and “absurd results” doctrines. 76 Fed. Reg. 15,262. However, the Agency does not come close to justifying the proposed exemption from regulation for biogenic CO<sub>2</sub> on either of those grounds.

In the Tailoring Rule, EPA readily conceded that agencies cannot easily rely on claims of administrative necessity (or absurd results) to evade clear statutory mandates unless they meet the heavy burden of demonstrating “that the statutory requirements, as written, are impossible to administer,” Tailoring Rule, 75 Fed. Reg. 31,533, and that Congress could not have intended the “absurd result” of creating multi-year logjams that would have prevented permitting for all applicants, thwarting the statute’s purpose. *Id.* at 31,517. EPA set forth a three-step process that it asserted an agency must satisfy before it may deviate from statutory mandates based on these doctrines:

[T]he three steps are as follows: When an agency has identified what it believes may be insurmountable burdens in administering a statutory requirement, the first step the agency must take is to evaluate how it could streamline administration as much as possible, while remaining within the confines of the statutory requirements. The second step is that the agency must determine whether it can justifiably conclude that even after whatever streamlining of administration of statutory requirements (consistent with those statutory requirements) it conducts, the remaining administrative tasks are impossible for the agency because they are beyond its resources, *e.g.*, beyond the capacities of its personnel and funding. If the agency concludes with justification that it would be impossible to administer the statutory requirements, as streamlined, then the agency may take the third step, which is to phase in or otherwise adjust the requirements so that they are administrable. However, the agency

must do so in a manner that is as refined as possible so that the agency may continue to implement as fully as possible Congressional intent.

Id. at 31,544. To support its reliance on these doctrines in the Tailoring Rule, EPA calculated that PSD and Title V permitting at the statute's 100/250 tons per year level would require the issuance of over 6 million permits, require 480 million work hours, and cost more than \$21 billion a year, each an effort exceeding its current program by orders of magnitude and rendering it literally impossible to process any permits for years to come. Id. at 31,540, 31,516, 31,564. Moreover, EPA then backed up its selection of phased-in implementation steps above the statutory thresholds by performing the same calculations for eight alternative approaches, discussing each in depth. See id. at 31,533-41.

The availability of the administrative necessity doctrine, is limited to cases involving proven impossibility. See, e.g., EDF v. EPA, 636 F.2d 1267 (D.C. Cir. 1980) (denying attempt to circumvent statutory command where EPA failed to show that it was not impossible to achieve concentrations of PCBs below 50 parts per million); Sierra Club v. EPA, 719 F.2d 436, 463 (D.C. Cir. 1983) (denying reliance on the doctrine where EPA's claim of difficulties in enforcing emissions limitations were based on agency predictions of future enforcement problems rather than actual experience); Public Citizen v. FTC, 869 F.2d 1541 (D.C. Cir. 1989) (FTC failed to justify claim of administrative necessity in enforcing tobacco advertising warning labels). Thus, the evidentiary bar for an agency's claims of administrative necessity is extremely high, and such claims must be rejected in all but impossibly burdensome circumstances.

- i. EPA provides no evidence supporting assertions of extensive workload or administrative impossibility in its exemption proposal.

EPA in the Proposed Rule invokes administrative necessity but (unlike in the Tailoring Rule) provides no analysis showing that an impossibility actually exists (or that an absurd result must follow) if it were to implement the statute's directives as written. Instead, EPA simply announces without support that “[j]ust as the extensive workload of processing permit applications from sources below the Tailoring Rule thresholds justified exempting those sources at least form the

initial steps in the Tailoring Rule phase-in program, . . . so too the *extensive workload* of processing permit applications from biomass facilities justifies exempting those sources for a period of time, pending EPA’s development of a consistent and practical methodology for determining net carbon cycle impacts.” 76 Fed. Reg. at 15,262 (emphasis added). Missing, among other things, is a quantification of what that workload consists of; how many sources using biomass feedstock will require permits over what period of time; how many additional work hours would be required to issue those permits; what costs would be incurred; what delays would result; and why it would be *impossible* for EPA to process the required permits. In short, EPA does not even begin to make a case.<sup>61</sup>

EPA attempts a short-cut to piggy-back onto the Tailoring Rule’s meticulous analysis by pronouncing that the burden arising from processing PSD permits for sources using biogenic feedstock would “add” to the burden identified in the Tailoring Rule and thus “frustrate the goals sought to [be]accomplish[ed] in the Tailoring Rule,” 76 Fed. Reg. 15,262. This short-cut is fatally flawed. The Tailoring Rule calculated the annual administrative burdens arising from *all* GHG PSD permits, *including* the very PSD permits at issue here, and concluded that, at the new applicability thresholds, permits for all sources emitting CO<sub>2</sub> could indeed be processed.

EPA presents no further evidence in this proposal demonstrating that permitting sources using biogenic feedstocks as required by the statute would increase permitting burden, beyond the evidence it presented to justify the Tailoring Rule’s new thresholds. This is so even though EPA received substantial numbers of comments during its Call for Information comment period between July and September 2010. Absent any additional, detailed convincing evidence of impossibility, EPA cannot now simply walk away from or ignore its previous reasoning, *see Sierra Club v. Martin*, 168 F.3d 1, 4 (11th Cir. 1999) (holding agency must follow regulations and procedures it has previously established), and its sudden departure from its own pronouncements less than a year earlier casts serious doubt on the validity of any changed analysis (even if one were supplied).

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<sup>61</sup> Indeed, the fact that EPA issued BACT guidelines explaining how certain biomass fuels can be considered in the BACT determination, on the very day it issued its proposed rule, belies any argument of impossibility in implementing the statute’s commands for biogenic CO<sub>2</sub>.

See also, Mt. Graham Red Squirrel v. Madigan, 954 F.2d 1441, 1457 (9th Cir. 1992) (granting no deference to agency expertise when its position has fluctuated). Even assuming that permitting for sources using biogenic feedstock did cause an “extensive additional workload,” such a circumstance falls far short of meeting the requirements in case law to show real impossibility to justify divergence from statutory mandates. EPA makes no attempt to quantify that additional burden as applied to currently prevailing permitting case loads or to prove that impossible administrative conditions currently prevail.

- ii. Nor can EPA manufacture “administrative necessity” where it does not exist.

EPA also asserts that general difficulties in determining the net carbon impacts of various biomass fuels which the Agency wrongly asserts is required before emissions from such fuels may be considered in applicability analyses — creates “additional and unique complexities … [and] additional permitting burdens” that require a complete exemption on administrative necessity grounds. 76 Fed. Reg. 15,258. As discussed below, EPA manufactures such complexities from what it asserts is the need to “reconcil[e] facility-based and land-based sequestration accounting systems,” *id.*, a need not cognizable under the statute nor adequately supported by the Agency.<sup>62</sup> Again, EPA does nothing to demonstrate that these issues create an impossibility.

And, ultimately, the “complexity” argument is a red herring. As EPA admits, a CO<sub>2</sub> molecule emitted from a source into the atmosphere is the same molecule, regardless of whether it is the result of burning biomass or fossil fuel. Proposed Rule, 76 Fed. Reg. at 15,254. Counting these emissions from sources is a straightforward process that is exactly the same regardless of whether the sources use biogenic or fossil fuel feedstock. The Clean Air Act demands that “[n]o major emitting facility on which construction is commenced may be constructed . . . unless (1) a permit has been issued for such proposed facility . . . setting forth

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<sup>62</sup> Indeed, even in the proposal notice, EPA points out that those who sought during the Tailoring Rule comment period to conflate the government’s methods for keeping an historic inventory of greenhouse gas sources and sinks – an inherently backward looking exercise – with greenhouse gas permit requirements, were mistaken in their understanding of the relationship between these two distinctly separate governmental functions and mandates. 76 Fed. Reg. 15,256.

emission limitations for such facility which conform to the requirements of this part.” 42 U.S.C. § 7475(a)(1). Because sources are “major” based on the amount of CO<sub>2</sub> they *emit – not* based on the lifecycle CO<sub>2</sub> analysis of the feedstock they use – lifecycle analysis complexities do not in any way affect the determination of whether a permit is required. EPA can and must make that determination, and can and must issue permits if emission thresholds are exceeded *regardless* of lifecycle questions.

Indeed, we support EPA’s decision to engage in lifecycle analyses that compare overall CO<sub>2</sub> emissions among various energy sources as part of the BACT emissions limit determination process; however, the fact that the full resolution of all uncertainties concerning this inquiry may take some time is neither novel to how PSD permitting has been administered for decades, nor an impediment to permit issuance.<sup>63</sup> The five-step, top-down BACT process is the proper venue for addressing remaining lifecycle analysis uncertainties based on the *currently existing* state of knowledge, just as the case-by-case BACT inquiry relating to the “best *available* control technologies” *and* fuel sources, 42 U.S.C. § 7479(a)(3), functions well despite the fact that the “best” technology or “clean fuel” may currently be neither available nor known. In short, the BACT process itself contains the answer to the difficulties EPA cites. EPA’s unsubstantiated fear that such analysis might prove “complex” in no way excuses the *complete* exclusion of CO<sub>2</sub> pollution sources from mandatory PSD permitting requirements.

The extent of EPA’s overreach becomes even clearer when contrasted with EPA’s own statements in the Tailoring Rule about what is necessary to justify departure from a statute’s mandate for reasons of administrative necessity. There, EPA admitted that it must, at a minimum, demonstrate a present, physical inability to proceed; it must identify and implement all streamlining steps available to administer the law in the least burdensome fashion; it must then prove that despite these efforts, its remaining tasks would still be impossible, rather than merely extremely difficult, to accomplish; and, even if it meets this burden, it must demonstrate that it will deviate from the statute no further than is needed to protect congressional intent. “Proposed Prevention of Significant Deterioration and Title

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<sup>63</sup> As pointed out above, EPA’s issuance of BACT guidance concerning the treatment of biomass fuels on the same day as this proposed rule, is a tacit admission by the agency that it knows this full well.

V Greenhouse Gas Tailoring Rule” (“Proposed Tailoring Rule,”) 74 Fed. Reg. 55,292 55,315 (Oct. 27, 2009); Mova Pharmaceutical Corp. v. Shalala, 140 F.3d 1060, 1068 (D.C. Cir. 1998) (even where administrative impossibility is demonstrated, an agency may not deviate “further from the statute than is needed to protect congressional intent.”); NRDC v. Costle, 568 F.2d 1369 (1977) (categorical exemptions from statute’s commands disfavored). Indeed, EPA has previously recognized that courts exhibit “reticence to uphold agency claims of administrative impossibility when those claims are made *in advance* of actual efforts to administer or enforce: ‘The agency’s burden of justification in such a case is especially heavy.’” Proposed Tailoring Rule, 74 Fed. Reg. 55,312-313, citing Alabama Power Co v. Costle, 636 F.2d 323 (D.C. Cir. 1980) (emphasis added).

As is the case throughout this proposal, EPA’s attempt to rely on administrative necessity completely reverses the applicable burdens of proof under the doctrine. Strikingly, EPA does not even attempt to provide proofs of impossibility here or to demonstrate that its proposed exemption is consistent with or protective of congressional intent. Indeed, it cannot, in light of its admission that it simply does not know whether particular biogenic feedstocks indeed meet the newly created permitting offramp of carbon neutrality. That, it says, can be determined only *after* further study.

- e. Nor has EPA demonstrated that regulating sources of biogenic CO<sub>2</sub> would create “absurd results.”

EPA claims its proposed exemption is justified in part by the absurd results” doctrine as relied on by the Agency in the Tailoring Rule, but then offers nothing that would support application of the absurd results doctrine to the present proposal. See, 76 Fed. Reg. 15,262. Nor can it. There is simply no ‘absurdity’ in a requirement that sources whose near term CO<sub>2</sub> impacts can be greater than those of fossil-fueled sources should be subject to the Act’s permitting programs for greenhouse gases. Nor is the suggestion that some biomass fuel may in the future be found to have some carbon-reducing benefits when used at some sources sufficient to show that subjecting all biomass-fueled sources to permitting

requirements, now, is in any way absurd. It is the exemption, rather than the statutorily mandated regulation of biogenic CO<sub>2</sub> emissions that would cause an ‘absurd result,’ because the exemption will lead to increased, not decreased, near term CO<sub>2</sub> emissions. EPA recognizes that requiring sources with biogenic CO<sub>2</sub> emissions to undergo permitting could be “counterproductive” as it “might actually discourage” utilization of biomass feedstock. 76 Fed. Reg. 15,262.<sup>64</sup> But the Agency fails to, and indeed cannot, show that such a result is an absurd, or even undesirable outcome from the perspective of environmental protection, as it would stall or avoid the “rush to biomass” and increased near term CO<sub>2</sub> emissions resulting from it.

EPA’s proposal is to relieve all sources that emit biogenic CO<sub>2</sub> emissions of all permitting requirements for these emissions, no matter how many millions of tons of CO<sub>2</sub> are emitted, for three full years. EPA thus would create a perfect regulatory vacuum, inviting a certain and frantic race to fill it with as many unpermitted biomass-fueled stationary sources as can be built before regulation might arrive. Yet, as shown above, EPA already has before it a great deal of thorough, recent scientific study showing that all biomass is not equal, and some feedstocks exceed even coal’s CO<sub>2</sub> emissions – whether evaluated at the stack or on a lifecycle basis. Indeed, the entire Proposed Rule is premised on the fact that highly significant differences in lifecycle CO<sub>2</sub> emissions among biomass feedstocks do exist. And yet, EPA offers blanket relief from regulation for all. Willfully closing its eyes to what it already knows, EPA proposes instead to promote an unfettered biomass-fed stationary source building boom – resulting in unregulated plants that unless and until major modifications are later undertaken, will *never* become subject to permitting requirements. The harm resulting not only from entirely uncontrolled CO<sub>2</sub> emissions but also from the depletion of America’s forests, which would undoubtedly be drawn upon to feed these plants for decades, is appalling, and not even discussed in the proposal.

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<sup>64</sup> This passage amply demonstrates the degree to which EPA’s motivation, expressed in this proposal, diverges from the statutory purpose of the PSD section: the promotion of biomass *qua* biomass, regardless of whether or not it actually reduces CO<sub>2</sub> emissions, is plainly not a cognizable goal under the Clean Air Act.

- f. EPA's proposed blanket exemption will thwart the purpose and design of the Clean Air Act's permitting requirements.

EPA's proposal to defer permitting for biogenic CO<sub>2</sub> is contrary to the Clean Air Act's purposes, as expressly outlined in section 160 of the Act:

- (1) to protect health and welfare from any actual or potential adverse effect which may be reasonably anticipate[d] to occur from air pollution . . . notwithstanding attainment and maintenance of all national ambient air quality standards;
- (2) to preserve, protect, and enhance air quality in national parks . . . and other areas of special . . . value;
- (3) to insure that economic growth will occur in a manner consistent with the preservation of existing clean air resources; . . . and
- (5) to assure that any decision to permit increased air pollution . . . is made only after careful evaluation of all the consequences of such a decision and after adequate procedural opportunities for informed public participation in the decisionmaking process.

42 U.S.C § 7470. Deferring permitting for these emissions cannot be reconciled with any of the stated purposes of the PSD program. As shown above, even a temporary deferral from permitting requirements would increase incentives for unfettered and uncontrolled biomass development, and in turn, significantly increase near term CO<sub>2</sub> emissions. For that reason, the deferral does not protect health or welfare, preserve air quality, insure growth will be consistent with preservation of air resources, or promote careful decisionmaking and informed public participation.

EPA's proposed approach also undermines the fundamental policy choices that Congress made in adopting the PSD program: (1) that it is preferable to prevent air pollution from becoming a problem in the first place; and (2) that controls should be installed when new sources are being constructed rather than as retrofits on existing sources. *See S. Rep. No. 95-127, at 11 (1977)* ("This

legislation defines ‘significant deterioration’ in all clean air areas as a specified amount of additional pollution. . . . This definition is intended to prevent any major decline in air quality currently existing in clean air areas and will provide a margin of safety for the future.”); H.R. REP. NO. 94-1175, at 101 (1976) (noting “an ounce of prevention is worth a pound of cure” and expressing preference for “using practical and currently available means to prevent or minimize the condition in the first place.”); *id.* at 108 (“Common sense dictates that it is substantially less expensive to prevent air pollution problems – and health problems – before they develop than it is to abate dangerous pollution levels . . .”).

Waiving the applicable permitting requirements on the basis that further study *might* determine that there *could* be CO<sub>2</sub> emission benefits demonstrably undermines the “prevention” purpose of the PSD program and the policy choices made by Congress. It is simply not reasonable to believe that Congress could have intended EPA to adopt a stance of deliberate ignorance concerning the foreseeable result, due to the proposed exemption, of increased near-term CO<sub>2</sub> emissions. EPA’s proposal will allow biomass-fueled stationary sources to be built and operated for years or decades without any demonstration that these sources are controlled to meet BACT-based CO<sub>2</sub> emissions limits.<sup>65</sup> And, when it subsequently is determined that the biomass feedstocks fueling those facilities are and have been *more* damaging from a climate perspective than other available feedstocks, the Act does not provide a mechanism to “fix” the problem, unless and until the facilities undertake major modification.

EPA’s proposed deferral therefore would run completely counter to the fundamental design of the statutory program under which it is proposed. See Public Citizen, 831 F.2d at 1113; Alabama Power, 636 F.2d at 360 (Agency’s attempt to interpret a statute is an unlawful overreach where it would thwart statutory purpose or command).

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<sup>65</sup> EPA’s proposed exemption extends far beyond relieving biomass facilities of demonstrating that biomass combustion is BACT. By exempting these facilities from the permitting process at the applicability stage, EPA is proposing that biomass-fueled stationary sources be relieved from the responsibility of demonstrating *any* form of BACT for greenhouse gases, including efficiency improvements, carbon capture and sequestration, or other technologies that fossil-fueled sources will be required to explore. EPA has thus proposed to create a competitive advantage for biomass facilities that will directly result in increased CO<sub>2</sub> emissions—a naked policy preference that not only has no basis in the Clean Air Act, but also contravenes the purpose of the statute.

- g. Nor can EPA ever justify a departure from the CAA statutory language and design on purely policy grounds.

Absent any basis in law or science, the only plausible explanation for EPA's proposal is that the agency is promoting a policy – or *political* – preference – as justification for avoiding the clear statutory requirements of the Clean Air Act. EPA's authority under the Act, however, does not include administrative discretion to avoid statutory commands in order to create de facto policy-based economic subsidies for particular industries.

As the Supreme Court had to remind EPA only four years ago, the agency's policy discretion is limited by the statute—not the other way around.

Massachusetts v. EPA, 549 U.S. 497, 532-35 (2007). It is disheartening that EPA would forget this lesson so quickly. Nor may an agency "avoid the Congressional intent clearly expressed in the [statutory] text simply by asserting that its preferred approach would be better policy." Engine Mfrs. Ass'n v. EPA, 88 F.3d 1075, 1089 (D.C. Cir. 1996). And yet, that is precisely what EPA attempts here, without providing any justification, nevermind the "extraordinarily convincing justification" required in such circumstances. Appalachian Power Company v. EPA, 249 F.3d 1032, 1041 (D.C. Cir. 2001).

i. EPA's Policy Arguments Do Not Support any Exemption or Deferral.

EPA concedes<sup>66</sup> in the Proposed Rule that the land-based accounting conventions used in the United States Greenhouse Gas Inventory<sup>67</sup> do not provide a technical basis for calculating emissions from specific biomass-fueled facilities or determining whether such facilities should be subject to PSD and Title V permitting. *See* Proposed Rule at 15,254 ("[N]either the IPCC Guidelines nor the

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<sup>66</sup> The Agency notes that Tailoring Rule commenters misapprehended completely EPA's intent in referencing the Inventory which was for GWP identification purposes only, not as an endorsement of its accounting paradigm as applied to permitting decisions. 76 Fed. Reg. at 15,256. EPA points out that those who sought during the Tailoring Rule comment period to conflate the government's methods for keeping an historic inventory of greenhouse gas sources and sinks – an inherently backward looking exercise – with greenhouse gas permit requirements, were mistaken in their understanding of the relationship between these two distinctly separate governmental functions and mandates. *Id.*

<sup>67</sup> U.S. EPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2008 (2011) (hereafter "Inventory").

Inventory were designed to quantify the net atmospheric impacts of a particular type of fuel from a stationary source over a specified time period, that extends into the future.”). Recent scientific work has been highly critical of efforts to mobilize these accounting conventions in support of simplistic assertions that biomass combustion is always “carbon neutral” and thus has no “net” atmospheric impact.<sup>68</sup> These assertions do not reflect physical reality, as shown above.<sup>69</sup>

Because land-based accounting conventions such as those employed in the Inventory cannot be used to calculate facility-specific emissions, they have no place in PSD and Title V applicability determinations. The Inventory’s conventions are necessarily backward-looking, and at best provide a snapshot of carbon stock changes across a wide geographical area over a handful of years. The Clean Air Act’s PSD and Title V programs, in contrast, require quantification of a particular facility’s projected emissions, and the application of emissions limits and controls in order to reduce them. In short, the Inventory and similar land-based accounting methods cannot answer the questions essential to an applicability determination under the PSD and Title V permitting programs.

Puzzlingly, having concluded that land-based Inventory-type accounting is inadequate, EPA has nonetheless set itself the task of “reconciling” land-based accounting conventions with the Clean Air Act’s “facility-based permitting” requirements. See id. (“it is important that [off-site] sequestration be accounted for at a level of spatial and temporal resolution that is meaningful and practical for purposes of facility-level permitting”). In short, EPA proposes to defer regulation for three years so that it can explore an Inventory-style land-based accounting system for use in applicability determinations.

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<sup>68</sup> See, e.g., Zanchi et al., The Upfront Carbon Debt of Bioenergy (May 2010); Mary S. Booth and Richard Wiles, Clearcut Disaster: Carbon Loophole Threatens U.S. Forests (Environmental Working Group 2010); Timothy Searchinger, et al., Fixing a Critical Climate Accounting Error, 326 SCIENCE 527, 527 (2009). Copies of these articles were submitted to EPA as attachments to the Center for Biological Diversity’s comments in response to EPA’s Call for Information on Greenhouse Gas Emissions Associated with Bioenergy and Other Biogenic Sources, 75 Fed. Reg. 41,173 (July 15, 2010). Those comments (EPA Docket ID No. EPA-HQ-OAR-2010-0560-0157) and attachments (EPA Docket ID Nos. EPA-HQ-OAR-2010-0560-0158 through -0161) have been incorporated by reference into the docket for the Proposed Rule. Incorporation by Reference, EPA Docket ID No. EPA-HQ-OAR-2011-0083-0003 (Feb. 23, 2011).

<sup>69</sup> See Cherubini, et al., CO<sub>2</sub> Emissions from Biomass Combustion for Bioenergy: Atmospheric Decay and Contribution to Global Warming, GLOBAL CHANGE BIOLOGY BIOENERGY (2011), doi: 10.1111/j.1757-1707.2011.01102.x (attached as Exh. 15).

EPA’s approach is not only unlawful, but scientifically indefensible. The Proposed Rule acknowledges that “the argument for treating CO<sub>2</sub> emissions differently from fossil-based emissions at the facility relies on the premise that sequestration occurs offsite, outside the boundaries of the facility.” 76 Fed. Reg. at 15,258. Analysis of off-site, future sequestration has no place in pre-construction permit applicability determinations under the Clean Air Act. Indeed, this should be obvious. As pointed out above, and by analogy, permitting authorities do not determine whether facilities must obtain PSD permits for NOx emissions above the statutory thresholds based on an argument that NOx may decay in the atmosphere over time, nor do they make applicability determinations for particulate matter emissions on the theory that the pollutant may eventually be deposited on land. If a facility has the potential to emit a pollutant—including CO<sub>2</sub>—in excess of the relevant statutory and/or regulatory threshold, PSD and Title V requirements apply as a matter of law.

EPA’s conception of a forward-looking, land-based “baseline” for analysis of facility-level impacts, *id.* at 15,258-259, is similarly misplaced. Although such an approach—which also relies on estimates of off-site, future sequestration—might have some place in evaluating case-by-case BACT determinations, or in BACT guidance, it cannot be used to determine applicability of the PSD and Title V permit programs in the first instance.

Policy arguments about domestic energy independence or the promotion of “renewable fuels,” whether pursued by state or federal agencies, are not at all related to the fundamental purpose of the permitting requirements of the statute, that is, the reduction of emissions of air pollutants. EPA’s attempt to base an exemption from the permitting requirements on such policy arguments, see *id.* at 12,257, clearly disregards not only statutory language and structure, but also the statute’s fundamental purpose.

According to EPA, “[A] variety of Federal and State policies have recognized that some types of biomass can be part of a national strategy to reduce dependence on fossil fuels and to reduced emissions of GHGs.” Consequently, argues the Agency, “[I]t is appropriate for permitting authorities to account for both existing Federal and State policies and their underlying objectives in evaluating the environmental, energy, and economic benefits of biomass fuels.”

From there, EPA leaps to the conclusion that “permitting authorities might determine that the use of certain types of biomass alone meets the BACT requirement for GHGs.”<sup>70</sup>

But recent state-level developments contradict EPA’s assertions. Importantly, the only state that has carefully analyzed biomass power’s effect on net GHG emissions has now taken a further step to restrict the ability of biomass to qualify for state support. The Massachusetts Department of Energy Resources (“DOER”) issued draft regulations on May 3, 2011 concerning the treatment of biomass-derived power and its emissions of GHG under the state’s Renewable Portfolio Standard (“RPS”). The actions being taken by Massachusetts are highly significant here because no state or federal agency in the United States has examined the issue of biomass power’s impact on climate change as closely as DOER. As described by Massachusetts DOER in materials released in conjunction with the May 3 draft regulation, “From the inception of the MA RPS program in 2003, biomass power generation has played a substantial role in meeting the program compliance obligation.”<sup>71</sup> However,

As new and large biomass projects were proposed in Massachusetts, and the 2008 Global Warming Solutions Act (GWSA) was enacted, public concern was raised regarding whether biomass power generation truly reduces greenhouse gas emissions, and the impact biomass plants would have on the sustainability of forest lands. Given that the implications of biomass energy on climate and forests were potentially significant but not adequately understood, DOER suspended qualification of biomass units for the RPS in December 2009 and commissioned a research team led by the Manomet Center for Conservation Science to analyze these issues. This suspension remains in effect until DOER completes its rulemaking process. DOER’s goal is to provide appropriate eligibility criteria on biomass

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<sup>70</sup> 76 Fed. Reg. at 15,257.

<sup>71</sup> Massachusetts Department of Energy Resources, Woody Biomass Eligibility: Summary of Regulatory Changes (May 3, 2011) at 1 (“DOER Draft Biomass Regulation Summary”) (issued in support of the Draft Regulation: Massachusetts Renewable Energy Portfolio Standard (RPS) – 225 CMR 14.00), available at [http://www.mass.gov/?pageID=eoeeaternal&L=5&L0=Home&L1=Grants%26+Technical+Assistance&L2=Guidance%26+Technical+Assistance&L3=Agencies+and+Divisions&L4=Department+of+Energy+Resources+\(DOE+R\)&sid=Eoeea&b=terminalcontent&f=doer\\_renewables\\_biomass\\_policy-reg-process&csid=Eoeea](http://www.mass.gov/?pageID=eoeeaternal&L=5&L0=Home&L1=Grants%26+Technical+Assistance&L2=Guidance%26+Technical+Assistance&L3=Agencies+and+Divisions&L4=Department+of+Energy+Resources+(DOE+R)&sid=Eoeea&b=terminalcontent&f=doer_renewables_biomass_policy-reg-process&csid=Eoeea).

generation units to assure that these units contribute positively to the carbon reduction commitments of the Commonwealth under the GWSA, and to assure that biomass fuel removals from forest lands are sustainable.<sup>72</sup>

In one of its key findings, the Manomet Center determined that net GHG emissions over 40 years from the combustion of biomass to generate electricity in utility-scale plants are higher than if the power had been generated with coal, even taking forest regrowth into consideration. If biomass is used instead of natural gas, Manomet found that net emissions are still higher even after ninety years.<sup>73</sup> The Manomet Center study – which arguably underestimates the climate impacts associated with biomass-based power<sup>74</sup> – remains the most detailed, best-researched analysis of biogenic emissions and their impact on climate.

DOER incorporated the study's findings, as well as the feedback provided by hundreds of commenters, into a September 2010 Draft Proposed Regulation on the eligibility of woody biomass under the state's RPS. After another round of public comment, DOER issued a Draft Regulation on May 3, 2011, that closely tracks the September 2010 proposal.<sup>75</sup> Massachusetts plans to finalize the regulations in June 2011.

In its current form, the proposedMassachusetts regulation:

*Narrowly defines qualifying biomass.* The regulation defines “Eligible Biomass Woody Fuel” to include residues (“tops, crooks and other portions of trees produced as a byproduct during the normal course of harvesting”), limited thinnings, and salvage wood that would otherwise pose a “major threat to forest

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<sup>72</sup> DOER Draft Biomass Regulation Summary at 1.

<sup>73</sup> Manomet Study, *supra* n. 25 at 112, Exhibit 6-12.

<sup>74</sup> See Mary S. Booth, *Review of the Manomet Biomass Sustainability and Carbon Policy Study* (July 2010) (<http://www.catf.us/resources/whitepapers/files/201007-Review%20of%20the%20Manomet%20Biomass%20Sustainability%20and%20Carbon%20Policy%20Study.pdf>).

<sup>75</sup> See DOER Draft Biomass Regulation Summary at 3-5. The two main changes made to the May 2011 draft are, first, the creation of a site-sensitive approach to determining the percentage of eligible woody biomass that can be removed a harvest site, and, second, a clarification of how overall efficiency and lifecycle GHG emissions should be calculated.

health or risk to private or public resources” (e.g., wood damaged by storms or pest infestations). The definition does not encompass healthy whole trees harvested for fuel.<sup>76</sup>

*Requires a 50 percent reduction in GHG over 20 years.* Biomass units must provide “an analysis of net Lifecycle Greenhouse Gas Emissions, that demonstrates, to the satisfaction of [DOER], that such emissions, over a 20 year life cycle, yield at least a 50 per cent reduction of greenhouse gas emissions per unit of useful energy,” as compared to a state-of-the-art combined-cycle natural gas-fired electric generating facility.<sup>77</sup>

*Establishes site-sensitive restrictions on woody biomass removal.* The regulation limits the amount of Eligible Biomass Woody Fuel that can be taken from a harvest site and used for energy generation, ranging from 40 percent (by weight) at sites with highly productive soils down to zero percent at sites with poor quality soil.<sup>78</sup>

*Creates minimum efficiency standards for generators.* Before it can qualify for renewable energy credits from the use of biomass, an electric generating unit must demonstrate that it will achieve an overall efficiency of 40 percent.<sup>79</sup>

The regulations put forward by Massachusetts – again, the only state to date that has attempted to carefully analyze the net climate impact associated with a policy that affects biomass power production – evince a deep concern about biomass power and the extent to which it can reduce power sector GHG emissions. After reviewing the best available scientific analysis as well as voluminous public comments, Massachusetts DOER decided to tightly restrict the eligibility of biomass-based power for state renewable energy credits. Accordingly, the actions taken by Massachusetts contradict EPA’s position that its proposed deferral is consistent with state policies – or at least recent policies grounded in up-to-date scientific understanding of this issue.

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<sup>76</sup> Massachusetts Draft Regulation, 225 CMR 14.02.

<sup>77</sup> Massachusetts Draft Regulation, 225 CMR 14.05 (1)(a)(7)(f)(iii).

<sup>78</sup> Massachusetts Draft Regulation, 225 CMR 14.05 (8)(a)(4).

<sup>79</sup> Massachusetts Draft Regulation, 225 CMR 14.05 (1)(a)(7)(f)(ii).

### 3. EPA’s Proposed Blanket Exemption for All Biomass Sources is Arbitrary and Capricious.

EPA’s proposal actually would have the effect of increasing near-term actual emissions of CO<sub>2</sub>, as shown above. Moreover, based on the science and other information EPA already has before it, the Agency is or should be well aware that this is the case. A decision to finalize the proposed blanket exemption – even on a temporary basis – under these circumstances is a textbook case of arbitrary and capricious decisionmaking. See Motor Vehicle Mfrs Ass’n v. State Farm Mutual Auto. Ins. Co., 463 U.S. 29(1983)(there must be a *rational relationship* between the facts at hand and the choice made).

Moreover, a decision to finalize an exemption as proposed, and on the basis asserted would not only be contrary to the evidence before the Agency, but would ignore important aspects of the problem before EPA – namely how to craft programs that can yield significant CO<sub>2</sub> emissions reductions in the relatively near term, in order to avoid catastrophic climate change-related damage. Such a decision would certainly constitute a “clear error in judgment.” Id. citing Bowman Transportation, Inc. v. Arkansas-Best Freight System, Inc., 419 U.S. 281, 285 (1974); Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402, 416 (1971).

- a. Because EPA’s proposal prejudgets the outcome of its study it is internally contradictory, and therefore arbitrary and capricious.

EPA’s proposal is fundamentally contradictory – its basic premise is that determining the life-cycle CO<sub>2</sub> impacts of biomass combustion is so “complex” and burdensome that a three-year hiatus in regulation is necessary to allow further study and analysis by an independent panel of experts. Yet at the very same time it suggests a deferral, EPA announces it already has concluded—albeit without providing any explanation or identifying any scientific support—that certain feedstocks either have “negligible” climate impacts or “clearly reduce CO<sub>2</sub> emissions.” *See* 76 Fed. Reg. at 15,259 (logging residues), 15,261 (mill residues); & 15,262 (dead trees).

The Agency’s apparent conclusion that biomass feedstocks which would arguably decompose over ten to fifteen years have negligible climate impacts, is

not clearly supported by the science. One recent study determined that energy production from logging residues results in significant CO<sub>2</sub> emissions over a short time frame, and noted that these emissions are commonly overlooked by accounting methods following IPCC guidance and the Kyoto Protocol.<sup>80</sup> In fact, the authors show that emissions from converting forest carbon stock to atmospheric CO<sub>2</sub>—commonly ignored in life-cycle analyses—are an order of magnitude larger than the harvest, processing, and transport emissions that generally are included in life-cycle analyses.

The effect of EPA’s unsupported conclusions regarding these feedstocks is to “entirely fail to consider a significant aspect of the problem,” Motor Vehicles, 463 U.S. at 43, a hallmark of arbitrary and capricious decision making. The critical time for CO<sub>2</sub> emissions reductions is in the near term – a point which EPA’s assertions ignore, as they are based entirely on some net effect of assumed resequestration in the future. But, according to a recent synthesis of climate science prepared under the auspices of the United Nations Environment Program, global CO<sub>2</sub> emissions must peak within the next decade and decline very sharply thereafter if we are to have even a “medium” chance of limiting average temperature increases to 2° C during the next century.<sup>81</sup>

Accordingly, emissions from combustion of feedstocks that otherwise would decompose -- even if decomposition would occur, as EPA believes, within the next 10-15 years – are not “negligible.” Rather, these emissions will actually *increase* global CO<sub>2</sub> concentrations during the precise period when the science indicates that those concentrations must peak and begin to decline. Put another way, even if a particular biomass feedstock could be considered “carbon neutral” over some longer period of time, it cannot be considered “climate neutral” now, or during the proposed deferral period. This has led one researcher to conclude that producing energy from logging residue “is not efficient in decreasing emissions to the atmosphere in the near future.”<sup>82</sup> Indeed, promotion of large-scale biomass, even from these feedstocks, will work *against* critical short-term climate mitigation efforts. EPA simply cannot conclude on the basis of the information presented in

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<sup>80</sup> Repo, supra note 50.

<sup>81</sup> UNEP, Emissions Gap Report supra n. 5 at 33-36.

<sup>82</sup> See Repo, supra n. 50 at 7.

the Proposed Rule that emissions from combustion of these feedstocks are “negligible,” de minimis, or otherwise not worth regulating.

#### 4. EPA Has Not Justified Even a Limited Exemption for Particular Biomass Feedstocks.

EPA’s *unsupported* claim that it might later have “sufficient information” to conclude that “at least some” unspecified biomass feedstocks have “negligible” climate impacts cannot justify even a partial exemption from Clean Air Act permitting requirements.

As previously discussed, the plain text and structure of the Clean Air Act require EPA to consider all CO<sub>2</sub> emissions when determining applicability of the PSD and Title V programs in the first instance. Nothing in the statute justifies creating exemptions from the applicability of these programs to some emissions fraction of an air pollutant based only on the characteristics of fuels or sources that emit the pollutant. Rather, the statute requires that the relative climate impacts or benefits and the lifecycle consequences associated with combustion of a particular biomass feedstock at a particular source must be addressed, if at all, in setting emissions limits under the statutorily mandated case-by-case BACT determination. See 42 U.S.C. § 7479(3) (defining BACT as a case-by-case determination, based in part on the application of clean fuels).

EPA has not proposed a more limited exemption from PSD and Title V requirements for the feedstocks it apparently believes have “negligible” or beneficial climate impacts. See 76 Fed. Reg. at 15,262 (EPA assertions that regulating would discourage the development of what it claims to be “good biomass”). If it did in the future, EPA would not only have to provide sufficient justification for a move away from the statutory requirements, as discussed above, but would also need to provide such scientific and legal justification for each exempted feedstock. Specifically, EPA would have to identify the particular feedstock, explain its scientific reasons (with appropriate references to the record) for believing that the feedstock is climate-neutral or beneficial, and identify the legal rationale (whether de minimis, administrative necessity, or absurd results) for deviating from what the Clean Air Act otherwise plainly requires. Furthermore,

because such an exemption would occur in the context of an applicability determination and would thus likely preclude case-by-case BACT analysis, any such exemption would have to be drawn narrowly enough to demonstrate that no facility-specific life-cycle inquiry is necessary for the particular feedstock.

In short, the burden to justify even a limited exemption proposed in the future would be very high.

##### 5. EPA’s Final Decision to Reconsider the Tailoring Rule Does Not Meet the Strict Requirements of Clean Air Act § 307(d)(2)(B) for Such Decisionmaking.

EPA included in the proposed rule notice the published final decision by the Agency to grant a Petition for Reconsideration it received from NAFO, 76 Fed. Reg. 15,247, which had been docketed in comments on the PSD and Title V Permitting Guidance for Greenhouse Gases (“BACT Guidance”), received from NAFO in December 2010.<sup>83</sup> NAFO’s Petition for Reconsideration claimed it had had no notice at all that EPA would consider how and whether biogenic CO<sub>2</sub> must be included in the applicability determinations for greenhouse gas permitting during the Proposed Tailoring Rule’s comment period. But that statement is belied by NAFO’s comments, submitted in the Tailoring Rule docket, on that precise point.<sup>84</sup> EPA notes as well that it provided letters to various members of Congress assuring them about the steps EPA “intend[ed] to take” to address the issues raised by NAFO’s Petition.<sup>85</sup> 76 Fed. Reg. 15,251.

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<sup>83</sup> 76 Fed. Reg. 15,257 n. 17 gives the docketing number for the Petition for Reconsideration as EPA-HQ-OAR-0841-0029.1. That is the docket number for comments received on EPA’s Greenhouse Gas BACT guidelines, for which , the deadline for commenting was in December 2010. By contrast, the Tailoring Rule docket is EPA-HQ-OAR-2009-0517. All materials received in response to the Tailoring Rule proposal, or forming the basis for the record on judicial review for the final Tailoring Rule must be included in that docket as a matter of law. See 42 U.S.C. §§ 7607(d)(2) &(6). NAFO’s Petition for Reconsideration is not included in the docket, as of April 28, 2011. See [www.regulations.gov](http://www.regulations.gov), at EPA docket no. EPA-HQ-OAR-2009-0517 (last searched April 28, 2011).

<sup>84</sup> National Alliance of Forest Owners’ Comments on Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, EPA-HQ-OAR-2009-0517- 5070.1 at 2-7 (Dec. 2009)(NAFO Tailoring Rule Comments)(arguing that EPA should not “count” biogenic CO<sub>2</sub> in applicability determinations for the PSD Program), available at <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2009-0517-5070.1>.

<sup>85</sup> These letters are included in the docket for the Proposed Deferral Rule, but not in the Tailoring Rule docket. Compare <http://www.regulations.gov>, docket nos. EPA-HQ-OAR-2011-0083- 0004 through -0006; with <http://www.Regulations.gov> docket no. EPA-HQ-OAR-2009-0517 (last searched April 28, 2011) (no letters docketed).

EPA's decision to reconsider the issue of the Tailoring Rule's treatment of biogenic CO<sub>2</sub> in the applicability determination is not only highly political and irregular, it is contrary to the Clean Air Act's substantive and procedural requirements governing such decisionmaking. Section 307(d)(7)(B) of the Act strictly limits petitions for reconsideration both in time and scope. It states:

[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. If the person raising such an objection can demonstrate to the Administrator that it was *impracticable to raise such objection within such time* or if the grounds for such objection arose *after the period for public comment (but within the time specified for judicial review)* and if such objection *is of central relevance to the outcome of the rule*, the Administrator *shall* convene a proceeding for reconsideration of the rule and provide the *same procedural rights* as would have been afforded had the information been available at the time the rule was proposed. If the Administrator refuses to convene such proceeding, such person may seek review of such refusal in the United States court of appeals for the appropriate circuit [as elsewhere defined].

42 U.S.C. §7607(d)(7)(B) (emphasis added). Thus EPA is only required to reconsider a rule based on a Petition for Reconsideration if the petitioner demonstrates to EPA that (1) it was *impracticable* to raise the objection during the comment period ("impracticability"), or that the grounds for such objection arose after the comment period but within the time specified for judicial review (that is, within 60 days of the final rule's publication in the Federal Register, 42 U.S.C. § 7607(b)(1)) (the "surprise" element). EPA has recently stated that "section 307(d)(7)(B) does not provide a forum to request EPA to reconsider issues that actually were raised, or could have been raised, prior to promulgation of the final rule." U.S. EPA, Response to Clean Air Taskforce [sic], World Wildlife Fund,

National Wildlife Federation, and Friends of the Earth’s Petitions for Reconsideration of The Renewable Fuel Standards (RFS2), at 1-2 (Feb. 17, 2011).

NAFO’s petition does not and cannot satisfy either the statute’s strict limitations on reconsideration, or EPA’s own recent interpretation of them. An examination of NAFO’s submittal during in the Tailoring Rule comment period belies any statements by NAFO about impracticability or surprise concerning the final Tailoring Rule’s treatment of biogenic CO<sub>2</sub> emissions, as it includes extensive comments on the very issues about which NAFO feigns “surprise” in its Petition.<sup>86</sup> In fact this issue was noticed in the Tailoring Rule proposal, and commented on extensively by NAFO and by others in their timely submissions to the Tailoring Rule docket.<sup>87</sup> Thus, EPA’s assertion that it is acted in response to a properly submitted Petition for Reconsideration in deciding to reconsider this aspect of the final Tailoring Rule, is disingenuous at best, and in the worst light, simply unlawful. NAFO’s Petition clearly did not meet the strict standards for a properly presented request for Reconsideration of a final rule.

Nor has EPA satisfied the statute’s procedural requirements governing decisions on submitted Petitions for Reconsideration. Far from “conven[ing] a proceeding for reconsideration of the rule and provid[ing] the *same procedural rights* as would have been afforded had the information been available at the time the rule was proposed” as the statute mandates she must do, 42 U.S.C. § 7607(d)(7)(B), Administrator Jackson published her *final* decision to reconsider the rule in the proposed deferral notice. 76 Fed. Reg. 15,251.

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<sup>86</sup> Compare NAFO Petition for Reconsideration at 2 (“stark and unannounced reversal of … precedent and practice”) with NAFO Tailoring Rule Comments at 2-5 (opining extensively on the question whether biogenic CO<sub>2</sub> should “count” in PSD applicability determinations for facilities burning biomass).

<sup>87</sup> See NAFO Tailoring Rule Comments, EPA-HQ-OAR-2009-0517- 5070.1 at 2-7, available at <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2009-0517-5070.1>; see also Clean Air Task Force comments, EPA-HQ-OAR-2009-0517-6200.1 available at <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2009-0517-6200.1>

Of course, an Agency may voluntarily decide reconsider all or a portion of a final rule . But the statute requires the Administrator’s decision must be proposed and finalized under the same procedures as was the original rule. 42 U.S.C. §§ 7607(d)(1), 7607(d)(7)(B). But EPA provided no opportunity for public comment either on the NAFO Petition for Reconsideration (which was never even docketed in the Tailoring Rule record, or relied on by NAFO in its filings in the litigation over the Rule), or on EPA’s sua sponte decision to reconsider this aspect of the Tailoring Rule. Such a decisionmaking process is clearly foreclosed by the terms of the Act. 42 U.S.C. §§ 7607 (d)(1)(J)(notice and comment requirements apply to the “promulgation *or revision of*” regulations under part C of subchapter I [the PSD provisions]”(emphasis added)); 7607(d)(2)(B) (the Administrator “shall convene a proceeding for reconsideration of the rule and provide the *same procedural rights* as would have been afforded had the information been available at the time the rule was proposed”).

The nature of EPA’s decision-making process here is not only unlawful in its own right, but further demonstrates the unreasonable, arbitrary and capricious nature of the highly political decision-making underlying the deferral proposal.

## 6. Consideration of Biomass as BACT.

As previously discussed, to the extent that biogenic CO<sub>2</sub> emissions have unique lifecycle characteristics that warrant different treatment under the Clean Air Act from other pollutants, these characteristics cannot form the basis of a broad exemption from PSD and Title V permitting. Rather, biomass feedstocks and the resulting CO<sub>2</sub> emissions must be analyzed in the context of facility-specific, case-by-case BACT determinations. This section addresses the appropriate treatment of CO<sub>2</sub> emissions from the combustion of biomass in BACT determinations. Appropriate treatment of biomass in the BACT process is critical to achieving the real GHG emissions reductions necessary to combating climate change.

EPA released BACT guidance for bioenergy emissions concurrently with the proposal (“Bioenergy BACT Guidance”).<sup>88</sup> As explained below, the Bioenergy BACT Guidance fails to provide necessary technical support for case-by-case BACT determinations. Instead, in a dramatic departure from past EPA practice, the Bioenergy BACT Guidance explicitly encourages permitting authorities to substitute broad policy judgments for the case-by-case analysis required by statute and regulations. Indeed, the real purpose of the Bioenergy BACT Guidance appears to be to provide an effective exemption from BACT analysis for all bioenergy facilities that might not be covered by the proposal’s broader applicability exemption. EPA’s approach in the Bioenergy BACT Guidance—like the proposal overall—is arbitrary, unsupportable, and all but certain to encourage legally and factually deficient BACT determinations.

a. EPA Has Not Demonstrated that Biomass Combustion *Per se* Constitutes BACT.

Once EPA has determined that a facility is a “major emitting facility,” the next relevant inquiry is whether the source has complied with mandatory PSD requirements, including the BACT requirement. While the applicability determination is straightforward, the question of when biomass may – if ever – qualify as BACT is less so.

i. EPA Has Not Shown that Biomass Is a “Clean Fuel”

EPA has not directly proposed that biomass be considered a “clean fuel” based on an accounting of the CO<sub>2</sub> emissions associated with the full lifecycle, production and use of the feedstock. We have previously noted that the legal basis for incorporating this type of lifecycle analysis into the BACT determination is

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<sup>88</sup> U.S. EPA, *Guidance for Determining Best Available Control Technology for Reducing Carbon Dioxide Emissions from Bioenergy Production* (Mar. 2011) (hereafter “Bioenergy BACT Guidance”). We reemphasize EPA’s Disclaimer that “[t]his document is not a rule or regulation” and “does not change or substitute for any law, regulation, or any other legally binding requirement *and is not legally enforceable*.” Bioenergy BACT Guidance (“Disclaimer”). Therefore, despite the comments below demonstrating the patent unlawfulness of much of this guidance, we do not concede, and EPA correctly recognizes, that this guidance has no binding effect on permitting authorities and cannot override the express requirements of the Clean Air Act and validly promulgated and lawful EPA regulations.

unclear.<sup>89</sup> However, should EPA determine that it has such authority, any determination that biomass constitutes a “clean fuel” must be made in accordance with the Clean Air Act and EPA regulatory precedent. That is, it must be made in accordance with the top-down, five step process in the 1990 New Source Review Workshop Manual<sup>90</sup> and must be made on a case-by-case basis.

The statute defines BACT as “an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under this chapter emitted from or which from any major emitting facility, which the permitting authority on a case-by-case basis, . . . determines is achievable for such facility through the application of production processes and available methods, systems, and techniques, including fuel cleaning, [and] clean fuels.”<sup>91</sup> Although there has been little guidance as to what constitutes a clean fuel, historically the focus on whether a give fuel type constitutes a “clean fuel” has focused on a facility’s at the stack emissions – that is, whether the fuel is “inherently cleaner” in terms of at the stack emission than an alternative.<sup>92</sup> If a fuel could only be considered “clean” in these terms, however, biomass could never qualify as BACT because, per unit of energy, biomass combustion emits more CO<sub>2</sub> than coal and significantly more than natural gas. Therefore, any determination that biomass is “cleaner” than fossil fuels must necessarily be based on an accounting of the CO<sub>2</sub> emissions associated with the full lifecycle of the feedstock.

As EPA recognizes, with fossil fuel combustion, there is effectively no way to restore the carbon stocks lost by combusting those fuels in any near term timeframe.<sup>93</sup> EPA claims that biomass is different because the potential growth of additional biomass arguably results in resequestration of carbon dioxide; however, biomass combustion also incurs a “carbon debt” that can persist for decades or

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<sup>89</sup> See Comments of Clean Air Task Force, et al., and Comments of Center for Biological Diversity, in response to EPA’s Call for Information (EPA Docket ID Nos. EPA-HQ-OAR-2010-0560-0432 and EPA-HQ-OAR-2010-0560-0157); see also Center for Biological Diversity, Re: PSD and Title V Permitting Guidance For Greenhouse Gases, 75 Fed. Reg. 70,254 (Nov. 17, 2010) (EPA Docket ID No. EPA-HQ-OAR-2010-0841-0058).

<sup>90</sup> New Source Review Workshop Manual; Prevention of Significant Deterioration and Nonattainment Area Permitting (Oct. 1990) (“1990 NSR Manual”).

<sup>91</sup> 42 U.S.C. § 7545(3).

<sup>92</sup> Comments of Clean Air Task Force on PSD and Title V Greenhouse Gas Tailoring Rule at 17-18 (EPA Docket ID No. EPA-HQ-OAR-2009-0517-6200.1).

<sup>93</sup> 76 Fed. Reg. at 15,254.

even centuries depending on the time needed for resequestration. EPA itself has properly acknowledged that different types of biomass have different types of lifecycle emissions. For example, current studies have shown that burning whole green trees causes more near term climate change damage than burning coal or natural gas.<sup>94</sup> For these reasons, if EPA were to propose that any particular biomass feedstock be treated as a clean fuel, it would have to do so based on appropriate lifecycle analyses.<sup>95</sup>

Any such determination, however, must be made in accordance with the CAA. Namely, the analysis must be made on a case-by-case basis and in accordance with the top-down, five-step BACT analysis, which is consistent with the Clean Air Act's requirements for BACT.

First and foremost, the CAA requires that each BACT determination must be made “on a case-by-case basis” wherein the permitting authority may take into account “energy, environmental, and economic impacts and other costs[.]”<sup>96</sup> We are aware of no authority that allows a permitting authority to deviate from this requirement. While EPA objects that such a case-by-case analysis would be “complex” and “time consuming” with respect to biomass, EPA has not offered any facts or evidence demonstrating that this will be the case in every instance. Nor has the agency adequately explained why this “complexity” justifies a de facto exemption from the case-by-case BACT analysis requirement.<sup>97</sup> This contravenes the plain language of the statute. There are more legally defensible ways for EPA to assist permitting authorities in this process, such as by identifying carbon lifecycle accounting methods from the scientific literature that may be appropriate for assessing the impacts of using a particular feedstock. In any event, the

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<sup>94</sup> See Manomet Study, *supra* n. 25 at 7.

<sup>95</sup> We do not concede that, in general, a lifecycle analysis is appropriate for determining that combustion of a particular fuel by itself constitutes BACT. For instance, we do not concede as was suggested in EPA’s BACT GHG guidance white paper, that methane emissions from coal or natural gas extraction should be considered in the BACT process. U.S. EPA, Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from Coal-fired Electric Generating Units, 20 (Oct. 2010). Moreover, BACT has generally been read as requiring that the “emission limitation” established through the analysis be immediately applicable upon receipt of the permit and commencement of operation. Any consideration of potential future resequestration in determining an BACT emissions limitation therefore contradicts long-term EPA precedent.

<sup>96</sup> 42 U.S.C. § 7479(3).

<sup>97</sup> See Bioenergy BACT Guidance at 23.

permitting authority must still engage in a case-by-case accounting at the facility level of emissions associated with the full chain of fuel production and use.<sup>98</sup>

Second, as EPA recognizes, permitting authorities should continue to apply the five-step, top down analysis when permitting new or modified sources of GHGs.<sup>99</sup> Even though EPA’s assertion is correct on its face, its application of the top-down BACT analysis in the Bioenergy BACT Guidance is misguided. EPA there asserts that “[s]tep 4 of the BACT analysis seems well-suited to enable permitting authorities to consider the potential sequestration of carbon in biogenic resources outside the boundaries of the facility when evaluating BACT for greenhouse gases.”<sup>100</sup> However, as is explained here and in comments by CATF on the November 2010 BACT GHG Guidance,<sup>101</sup> this presupposes without explanation that biomass should be listed as a control technology at Step 1 in the first instance.

EPA’s own guidance, which has been in effect and applied by permitting authorities for decades, demonstrates that the available BACT options, including clean fuels, must be determined at *step 1* to even proceed to the subsequent steps of the BACT analysis: “The first step in a ‘top-down’ analysis is to identify, for the emission unit in question . . . , all ‘available’ control options.”<sup>102</sup> Only once something has been identified as a valid “control technology” may it be discounted at further steps in the analysis (including based on environmental considerations at step 4). Therefore, EPA’s November 2011 BACT GHG Guidance and the Bioenergy BACT Guidance simply put the cart before the horse by presupposing, without any explanation, that biomass should be listed as even a threshold matter. This is particularly true with respect to biomass combustions because it will

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<sup>98</sup> 76 Fed. Reg. at 15,529. For instance, as noted above, a permitting authority would have to take into account whether use of these feedstocks would result in increased, indirect emissions. This could occur, for instance, if feedstocks that were originally being used for consumer goods, such as furniture, are proposed to be diverted for bioenergy purposes.

<sup>99</sup> Bioenergy BACT Guidance at 11.

<sup>100</sup> Id. at 21.

<sup>101</sup> Comments of Clean Air Task Force et al. on PSD and Title V Permitting Guidance for Greenhouse Gases at 3 (EPA Docket ID No. EPA-HQ-OAR-2010-0841-0085). This guidance was updated in March 2011 by EPA. This guidance was originally issued in November 2010 and was updated by EPA in March 2011, see U.S. EPA, PSD and Title V Permitting Guidance for Greenhouse Gases (Mar. 2011). References to the original guidance issued in November are referred to as the “November 2010 BACT GHG Guidance.” References to the updated BACT GHG Guidance are “BACT GHG Guidance (updated March 2011).”

<sup>102</sup> 1990 NSR Manual at B.5.

inevitably result in more CO<sub>2</sub> emissions per unit of energy than other types of fuel. Therefore, if permitting authorities are to conclude that biomass constitutes an available control technology based on a lifecycle analysis, this must occur at step 1 and not at step 4.<sup>103</sup>

In sum, if EPA determines that it has authority to determine that biomass constitutes a clean fuel based on a full lifecycle emissions analysis, then such an analysis must be conducted in accordance with the requirements of the CAA. First and foremost, the analysis must be done on a case-by-case basis. While EPA may prefer to determine that certain types of biomass probably constitute BACT, it must nonetheless conduct an analysis at the facility level to demonstrate that this is indeed the case.

Finally, we continue to object to EPA's conclusion that a lifecycle analysis may be conducted at step 4 of the top-down analysis. This is contrary to decades-long EPA precedent, which requires that a fuel must be listed as a control technology – because of its effectiveness in reducing emissions – at *step 1* of the analysis

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<sup>103</sup> Clean Air Task Force and other environmental organizations commented on the relationship between Step 3 and Step 4 of the BACT analysis as discussed in the November 2010 BACT GHG Guidance. In that guidance, EPA suggested that a less effective control technology could be chosen on the basis of environmental considerations despite the availability of more stringent control technologies. (EPA has since updated this guidance in March of this year). Clean Air Task Force and others noted that historically, as EPA continues to recognize, “[t]he top-ranked options should be established as BACT unless the permit applicant demonstrates to the satisfaction of the permitting authority that technical considerations, or energy, environmental, or economic impacts justify a conclusion that the top-ranked technology is not ‘achievable’ in that case. If the most effective control strategy is eliminated in this fashion, then the next most effective alternative should be evaluated, and so on, until an option is selected as BACT.” BACT GHG Guidance (updated March 2011) at 19; see also 1990 NSR Manual at B.26-29. Despite this well established precedent, EPA seems to suggest that a permitting authority may choose a lesser effective control technology based solely on step 4 environmental, energy, or economic considerations even though other more stringent technologies have not been eliminated. BACT GHG Guidance (updated March 2011) at 41. These two approaches cannot be reconciled and as was stated in comments on the November 2010 BACT GHG Guidance, EPA has not provided any authority to demonstrate that step 4 considerations may be the sole basis for determining the BACT emissions limitation. Comments of Clean Air Task Force et al. on “PSD and Title V Permitting Guidance for Greenhouse Gases” at 6 (EPA Docket ID No. EPA-HQ-OAR-2010-0841-0085). The Bioenergy BACT Guidance would appear to apply this faulty reasoning, and to the extent it does, the guidance continues to be without legal support and contrary to the statutory and regulatory requirements of the BACT analysis. See Bioenergy BACT Guidance at 16-18. In other words, if there is a control technology with demonstrably lower emissions than biomass that has not been eliminated due to a step 4 consideration, it is that technology that must be chosen as BACT.

b. EPA’s Proposed Expansion of the Step 4 Analysis Is Unprecedented and Unlawful.

The BACT Bioenergy Guidance does not actually propose that careful, case-by-case lifecycle analysis be conducted at step 4 of the BACT process. Rather, EPA proposes that the step 4 inquiry be used to avoid the necessity for analysis in the first place. In essence, EPA counsels permitting authorities to conduct a rigged analysis that substitutes preconceived policy judgments for pollution control technologies and ignores the environmental, economic, and energy drawbacks of widespread biomass energy generation. The real purpose of EPA’s proposal—to create a de facto exemption from real BACT analysis for bioenergy facilities that cannot avail themselves of the broader exemption in the proposal—is as unlawful as it is obvious.

The flaws in EPA’s approach pervade each area of Step 4 analysis: environmental, economic, and energy impacts.

i. Environmental Impacts

EPA’s guidance for assessment of environmental impacts is deeply problematic. First, EPA deviates from past practice by proposing that the analysis consider the effects of CO<sub>2</sub> emissions, namely the fact that “the production of biomass entails carbon sequestration.”<sup>104</sup> This is true as far as it goes, but it proves only that biomass contains carbon. EPA, however, apparently takes this statement to mean that the *combustion* of biomass entails carbon sequestration, which is an entirely different proposition, and not necessarily a true one. Burning biomass does not by itself guarantee future land-based sequestration.

EPA also proposes that permitting authorities measure bioenergy emissions against a land-based “business as usual” sequestration baseline. EPA’s baseline concept, however, is underdeveloped.<sup>105</sup> Even if a future land-based “baseline” were developed for use in case-by-case BACT determinations, it would need to be far more robust and inclusive than the approach contemplated in either the

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<sup>104</sup> Bioenergy BACT Guidance at 20.

<sup>105</sup> See Bioenergy BACT Guidance at 22.

proposal or the Bioenergy BACT Guidance. Such an approach must consider the effects of policy actions and incentives (including deregulatory actions like the proposal) on forest and land management. It also must accurately account for the short-term climate impacts associated with immediate combustion of materials that would otherwise decompose over time; even “waste” biomass materials like forest residues can take decades to decompose, and combustion of these materials will transform stored carbon into climate-forcing CO<sub>2</sub> far more rapidly and efficiently.<sup>106</sup> Such an approach also must account for the lost capacity for additional sequestration associated with biomass removal and combustion. Over time, a growing forest may sequester far more carbon if left alone than if harvested and burned for energy, even if the carbon lost to combustion is eventually replaced with new growth.<sup>107</sup> EPA’s skeletal “baseline” proposal does not seem to consider lost sequestration capacity at all.

EPA further repeats the proposal’s unsupported conclusions that certain biomass feedstocks (such as mill waste and dead trees) have “negligible” climate impacts. As previously discussed, these assertions lack adequate explanation or scientific support and, as such, cannot be used to justify a determination that burning these feedstocks constitutes BACT.

Finally, EPA’s guidance completely ignores the wider environmental impacts of widespread bioenergy generation. As discussed elsewhere in this letter, implementation of policies favoring bioenergy—including favorable regulatory policies such as contemplated in the proposal and the Bioenergy BACT Guidance—will result in increased demand for woody biomass fuel. EPA even admits as much in extolling the economic benefits of bioenergy generation. But this increased demand will necessarily affect forest and land management, degrade forest habitat, result in more aggressive logging operations that degrade water quality, and cause impacts to human health resulting from conventional pollutant emissions from a new fleet of biomass facilities. In effect, EPA advises permitting authorities to consider only the purported benefits of biomass energy generation—benefits that EPA has not shown to exist—and none of the drawbacks. A BACT analysis should include an honest assessment of the environmental consequences

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<sup>106</sup> See Repo, *supra* n. 50.

<sup>107</sup> See Johnson, *Goodbye to Carbon Neutral*, *supra* n. 24.

of any particular control technology. The Bioenergy BACT Guidance, in contrast, rigs the game, sending permitting authorities on an outcome-oriented path toward a preordained conclusion.

## ii. Economic Impacts

Once again, EPA deviates from past practice in recommending that permitting authorities consider the “indirect” economic impacts—or, more accurately, the “potential economic benefits”—of bioenergy generation.<sup>108</sup> EPA does not even attempt to explain why such analysis is appropriate in the context of bioenergy facilities, when it has not been appropriate for any other type of facility.

Going one step further, EPA openly recommends that permitting authorities substitute policy preferences for actual analysis of economic impacts. EPA asserts that the “underlying objectives” of policies promoting bioenergy “may be considered as a relevant indirect economic impact or benefit” under step 4—regardless of whether such an impact or benefit actually occurs. EPA likewise states that where selection of a “particular option” (i.e., biomass combustion) as BACT would “further the goals” of such a policy, this may form “part of the basis” of selecting that option as BACT. These objectives, goals, and policy judgments, however, have nothing to do with whether the choice of any particular facility to burn biomass will have any particular economic impact. This aspect of step 4 analysis should be concerned with establishing the cost-effectiveness of pollution control measures, not with advancing unrelated “goals” and “objectives.” These policy judgments have no place in BACT analysis.

## iii. Energy Impacts

EPA again advises permitting authorities to “broaden the scope” of energy impacts analysis beyond what has traditionally occurred at step 4. Once again, the rationale for this broadening is that “a variety of state and federal policies” favor

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<sup>108</sup> Bioenergy BACT Guidance at 25.

bioenergy.<sup>109</sup> EPA thus again recommends that permitting agencies substitute policy judgments for analysis under step 4.

Even if such an expansion of scope were permissible, EPA’s policy-driven guidance would skew the resulting analysis. For example, EPA recommends consideration of policies that require replacement of fossil fuels with “renewable” fuels. Yet EPA fails to acknowledge that many of these policies establish a renewable “portfolio” target that could be satisfied by any number of renewable generation technologies, including far less carbon-intensive technologies like solar and wind. Under these policies, biomass generation does not necessarily replace fossil fuel generation, but rather competes with other forms of renewable generation. In effect, making a policy judgment in favor of a carbon-intensive, low-efficiency, and highly polluting biomass facility could have the effect of foreclosing a far cleaner and less carbon-intensive alternative. By focusing solely on the purported benefits of biomass energy generation, and by resolutely ignoring any possible drawbacks, EPA precludes any real analysis of indirect energy impacts.

c. The “Bioenergy BACT Guidance” Effectively Constitutes Presumptive BACT.

The Bioenergy BACT Guidance, in effect, advises permitting authorities to presume that biomass combustion is BACT for itself. EPA accomplishes this by stating that where a bioenergy facility is projected to provide energy and economic benefits in accordance with state and federal policies promoting bioenergy generation, these considerations may justify selecting a biomass fuel as BACT for CO<sub>2</sub> emissions from the facility.<sup>110</sup> Put more succinctly, if a bioenergy facility advances policies promoting bioenergy, the BACT analysis for CO<sub>2</sub> is presumed to be satisfied.

Of course, what EPA proposes is nothing more than a tautology. Bioenergy facilities will almost always advance policies favoring bioenergy facilities. Yet this conclusion tells permitting authorities absolutely nothing about the environmental, economic, or energy impacts of a particular biomass fuel or

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<sup>109</sup> Bioenergy BACT Guidance at 27.

<sup>110</sup> Bioenergy BACT Guidance at 29.

facility. This conclusion, in other words, is a mere presumptive judgment that cannot substitute for BACT analysis. Any such presumption, however, is patently unlawful. First, the requirement that BACT be conducted on a “case-by-case” basis is statutory requirement<sup>111</sup>. EPA has not met the especially high burden of deviating from this requirement.<sup>112</sup> It states merely that “such a case-by-case analysis of the net atmospheric impact of biomass fuels would likely be prohibitively time-consuming and expensive” and “would require extensive analysis” and “extensive workload requirements.”<sup>113</sup> EPA, however, provides no support for this conclusion.<sup>114</sup> Therefore, EPA has failed to meet the “especially high burden” of deviating from the plain language of the Clean Air Act by justifying its action unsubstantiated future predictions of regulatory difficulty.<sup>115</sup>

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<sup>111</sup> 42 U.S.C. § 7479(3); see also 1990 NSR Workshop Manual at B.1 & B.5.

<sup>112</sup> As was explained above, an agency bears an extremely high burden when deviating from the plain language of the statute based on the legal doctrines of absurd results, de minimis authority, or administrative necessity.

<sup>113</sup> Bioenergy BACT Guidance at 23.

<sup>114</sup> Compare 76 Fed. Reg. 15,249-266 (no support for proposition), with 75 Fed. Reg. at 31,556-57 (noting that failure to tailor the PSD thresholds would “increase the size of the PSD program at least an order of magnitude beyond what Congress seems to have expected” and noting the total additional workload and cost to permitting authorities absent tailoring).

<sup>115</sup> Alabama Power, 636 F.2d at 359-60.