XII. New Source Performance Standards

A. Introduction

EPA also proposes revised section 111(b) New Source Performance Standards ("NSPS") for SO2, NOx, and PM emissions. The new source standards, which are output- or alternatively percent reduction-based, are an improvement over the standards they replace, but are at best disappointing in several respects, and unlawful in others. Rather than engaging in a serious review of the levels of control reflecting the "best" demonstrated systems of emissions reduction, or looking forward to what might be achieved over the 8-year regulated period with the application of new strategies, EPA proposes standards based on emissions levels that are achieved already by many sources in the existing fleet, using controls that in many instances have been available for over a decade. While EPA's record includes information about emerging control options, including some multi-pollutant technologies that reportedly offer the potential for significant controls not only of SO2, NOx, and PM, but also of carbon dioxide,[1] EPA does not exercise its authority to set standards that create incentives for the use of such technologies, but rather impermissibly looks to what is routinely achieved in practice as the basis for its *new* source standard.

In addition to proposing less protective standards than the Act and court precedents support, and that are less technology-forcing than Congress intended, EPA also offers up a suite of unlawful provisions further weakening the standards, including "exemptions" from the NSPS for "commercial demonstration permits" and

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[1] *See* U.S.EPA, OAQPS, Memorandum to EGU NSPS Docket, "Control of Total PM Emissions" (Mar. 2011), Docket ID EPA-HQ-OAR-2011-0044-0003-1 ("Total PM TSD"); U.S.EPA, OAQPS, Memorandum to EGU NSPS Docket, "Control of SO2 Emissions" (Mar. 2011), Docket ID EPA-HQ-OAR-2011-0044-0004-1 ("Total SO2 TSD"); U.S.EPA, OAQPS, Memorandum to EGU NSPS Docket, "Control of NOx Emissions" (Mar. 2011), Docket ID EPA-HQ-OAR-2011-0044-0005-1 ("NOx TSD"); U.S.EPA, OAQPS, Memorandum to EGU NSPS Docket, "Multi-pollutant Control Technologies" (Mar. 2011), Docket ID EPA-HQ-OAR-2011-0044-0006-1 ("Multi-pollutant TSD").

units burning coal refuse, and also less stringent 'modified source' standards intended to preserve the use of a specific technology. These unlawful exemptions must not be finalized as proposed. EPA must shore up and tighten its new source standards in the final rule, so that they truly reflect the application of the "best" systems of emissions reduction, including emerging technologies, and so the final standards actually have the effect of stimulating "the innovative character of industry in reaching for more effective, less costly systems to control air pollution." *Sierra Club v. Costle*, 657 F.2d 298, 347 n.174 (D.C. Cir. 1981).

B. Congress Intended NSPS to be Forward-Looking and Technology-Forcing, Not Based on Emissions Levels Readily Achieved By Existing Sources

Clean Air Act section 111 requires EPA to establish, and at least every 8 years review and revise as appropriate, new source standards of performance in listed industries "reflect[ing] the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated." 42 U.S.C. §§7411(a)(1); (b). It is the system of emission reduction (also called the "best demonstrated technology" or "BDT") that must be adequately demonstrated, and the standard achievable. *National Asphalt Pavement Ass'n, v. Train,* 539 F.2d 775, 785-86 (D.C. Cir. 1976). "Adequately demonstrated" however does not mean that existing plants must be capable of meeting the new source standard; on the contrary, section 111 looks toward the capabilities of future technology, not the state of the art at present. *Id.*; *see also Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973) (finding that the 1970 Senate Report made clear that NSPS are not to be based on technologies in routine use: "section 111(b) looks toward what may fairly be projected for the regulated future, rather than the state of the art at present, since it is addressed to standards for new plants."). An "achievable standard" does not necessarily mean an emission limit that is "routinely achieved in practice" prior to

the adoption of the standard, but rather means an emissions rate within the realm of the adequately demonstrated systems' efficiency, not set at a theoretical level. *Id.*

Because NSPS apply to *new* sources, and must reflect application of the *best* demonstrated system of reduction, they need not be achievable for all types of existing sources in the listed category. *Portland Cement Ass'n*, 486 F.2d at 391. Moreover, by using the expansive term "system of emission reduction" and providing that NSPS must be based on the "best" system that is "adequately demonstrated," Congress in section 111(a) made clear that EPA must evaluate all "adequately demonstrated" systems to determine which is "best" – not merely list the options and then set the standards on some other basis. See 42 U.S.C. §7411(a)(1). Nor can EPA avoid setting limits reflecting the best demonstrated system merely because some sources may choose a different control method to meet the standard. *ASARCO v. EPA*, 578 F.2d 319, 322 (D.C. Cir. 1978).

In short, section 111 is meant to be technology-forcing – one of the enumerated purposes of the provisions was to "create incentives for technology to stimulate and augment the innovative character of industry in reaching for more effective, less costly systems to control air pollution."[2] *Sierra Club*, 657 F.2d. at 347 n.174; *see also ASARCO*, 578 F.2d at 322 & n.6 ("[NSPS] are designed to force new sources to employ the best demonstrated systems of emission reduction;" the language of § 111(a) evinces Congressional "commitment to requiring the best technology."). Towards that end, a new source standard can be fuel neutral and set on an output basis, and furthermore an "achievable standard" can be one that is based on extrapolations of technology performance on facilities in other countries or in other industries. *Lignite Energy Council v. EPA*, 198 F.3d 930, 933-934 & n. 3 (D.C. Cir. 1999). While the language of section 111(a) clearly authorizes EPA to

[2] *See also* Sen. Rep. No. 91-1196, at 16, 91st Cong. 2d Sess., (1970); H.Rep. No. 91-1146, at 10, 91st Cong.2d Sess. (1970) – the technology must be available for application on new plants, and although it may not be purely theoretical or experimental means of controlling air pollution, need not be in actual routine use anywhere.

take economic costs and "any nonair quality health and environmental impact and energy requirements" into account, the statute does not describe the weight to be given each factor, and the Agency has discretion to balance them, up to the point at which the standard would impose economic or environmental costs that are "exorbitant." *Id.* at 933 (citing *New York v. Reilly*, 969 F.2d 1147, 1150 (D.C, Cir. 1992); *National Asphalt*, 539 F.2d at 786 (D.C. Cir. 1976)).

Given this legal framework, and the information available to EPA in this record (and indeed since 2005), EPA's actions in setting this NSPS are very disappointing. As noted above, the record includes several current memoranda cataloguing available technologies and strategies for SO2, NOx, and PM control, including several new and innovative multi-pollutant control options. EPA does not analyze what emissions rates could be fairly projected for the regulated future (the up to 8 years when this standard will be in place before another mandatory review), based on the application of those strategies,[3] however, but instead looks to emissions rates that are achieved by existing sources (even those not employing state of the art systems of emissions control) at present. Evidence in the record shows the proposed NSPS are easily met by many existing sources for which EPA regularly collects information or collected information in its MACT ICR.

Nor does the Agency evaluate the efficacy of basing new source standards on application of systems of emissions reductions that allow control as well of greenhouse gas emissions, despite having information about those technologies,[4] and despite the fact that the Agency has announced its intention to issue NSPS for greenhouse gas emissions from this industry in the near term. 75 Fed. Reg. 82,392

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[3] *See, e.g.,* Total PM TSD (listing and generally describing, but not analyzing, multiple control options for PM, describing existing source performance, and then determining to set the NSPS emissions rate at the "top 20 percentile of [existing source] performance test data" as reported to EPA as part of the EGU NESHAP information collection request); NOx TSC (same, based on data from existing facilities reported to the Clean Air Markets Division); SO2 TSD (same).
[4] *See* Multi-pollutant TSD.

(Dec. 30, 2010). Indeed, the proposed new source standards, while an improvement over the standards they replace, are not technology-forcing at all, nor do they create incentives to develop better and less costly controls. While EPA has discretion in standard setting, that discretion is not unfettered – particularly where the standards being set defeat the purpose of the statute – namely the creation of incentives to develop more effective and less costly air pollution controls.[5]

C. The Proposed New Source Performance Standards Do Not Reflect the Application of "Best Demonstrated Systems of Emission Reduction"

EPA proposes fuel-neutral new source performance standards for SO2, and Total Particulate Matter, and a combined NOx+CO standard or in the alternative a NOx standard for new coal and oil-fired EGUs. EPA requests comment on the emissions limits proposed, and on the Agency's methodology in setting the standards. We address the proposals for each pollutant in turn.

1. The Agency's Proposed New Source SO2 Performance Standards Clearly are Not "Forward Looking" and Do Not Reflect the Application of BDT Systems of Emissions Reduction

EPA proposes fuel-neutral new source standards for SO2 at a level of 1.0 lbs SO2/MWh or alternatively 97 percent reduction from uncontrolled potential to emit, averaged over a 30-day period, but also says it is considering new source limits in the range 0.80-1.2 lbs SO2/MWh or 96-98 percent reductions from potential to emit. 76 Fed. Reg. at 25,065-066. The Agency's methodology as outlined in the proposal clearly shows these emissions rates are not the result of an analysis of the application or performance of BDT systems of emission reduction– instead they are based on emissions rates that are already achieved by existing sources, albeit

[5] *Cf. Sierra Club*, 657 F.2d at 348 (holding that more scrutiny is appropriate in the converse situation, where EPA sets more stringent standards to provide incentives for control technology development – by the same token, a court should take a closer look at any final rule that sets less stringent standards than are required to actually achieve more cost-effective and deeper reductions in air pollution, through the technology-forcing purposes of section 111).

among the cleaner sources in the fleet. Even at the low end of the ranges EPA says it is considering, the data available to the Agency and reported in this proposal support lower standards for *new* sources. *See* 76 Fed. Reg. at 25,065, Table 17 (showing 5 *existing* sources meeting a standard below 0.80 lbs/MWh-30 day rolling average, and all 15 sources showing greater than 96 percent reductions from potential to emit).

EPA furthermore has had before it since 2005 evidence supporting new source SO2 emissions standards at or below 0.70 lbs/SO2/MWh—30 day average, and scrubber vendors even in 2005 were reporting removal efficiencies of 99.5 percent of sulfur from high sulfur coal.[6] Clearly the standard set by the Agency in 2006 was insufficient – but the Agency's current proposal also is insufficient to meet the statutory requirement that NSPS reflect the application of BDT systems, in a forward looking fashion, at new sources.

And in the current proposal, the Agency does not even identify an emissions rate associated with applying BDT systems at new units. While EPA may not base an NSPS emissions limit on any particular technology configuration, it does under the statute have the obligation to do more than simply catalogue all available control options – it is tasked with ensuring that the NSPS are based on the application of BDT, which is defined as a "system of emission reduction" and can include the use of lower sulfur coal and precombustion processes as well as add-on controls. EPA has not supported its proposed standard in this way (indeed it is not completely clear whether EPA has even identified a BDT control strategy for SO2). Instead the proposed standards are based on the status quo emissions profiles for existing sources – EPA sets SO2 standards that are "achievable" by all new sources (and even many existing sources) rather than standards that are "achievable"

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[6] *See* Final Rule, Standards of Performance for Electric Utility Steam Generating units For Which Construction Is Commenced After September 18, 1978, 71 Fed. Reg. 9,866, 9,871 (Feb. 27, 2006) (describing evidence received by the Agency in 2005 supporting standards lower than the 0.80-1.2 lb/MWh range currently under consideration by EPA).

through the application of the best adequately demonstrated system of emissions control, as the statute requires.

2. The Agency's Proposed New Source NOx+CO Performance Standards Clearly Are Not "Forward Looking" – A Lower Standard Is Justified On the Record

EPA co-proposes a (preferred) combined NOx+CO new source performance standard, of 150ng/J m (1.2lb [NOx+CO]/MWh) or an alternative NOx-only standard of 88 ng/J (0.70 lb NOx /MWh). EPA further says it is considering a range of emissions rates for its preferred NOx+CO standard, of between 130-180 ng/J or 1.0-1.4 lbs [NOx+CO]/ MWh. In this instance, EPA does identify a BDT system of emission reduction for NOx, which it says is selective catalytic reduction (SCR) or selective non-catalytic reduction (SNCR) for some generating unit types, and advanced combustion controls. 76 Fed. Reg. at 25,066, *see also* NOx NSPS TSD at unnumbered page 5), but no BDT system is reported for CO. EPA also asserts and evaluates potential greenhouse gas co-benefits in setting a combined NOx+CO standard, in particular the "flexibility to minimize nitrous oxide (N2O) emissions" particularly at fluidized bed boilers. *Id.* at 25,068. Where a NOx+CO standard allows optimization of controls and avoidance of emissions of N2O (a very potent greenhouse gas), as EPA posits, *id.*, the result is a net benefit for the environment. But the question remains, does the proposed NOx+CO emissions rate actually represent BDT systems, and the answer, unfortunately is "no."

The information underlying this proposal show a wide variety of controls available for NOx control, and additionally that EPA is aware of a variety of new multi-pollutant control options. NOx TSD, Multipollutant TSD. For CO, the Agency asserts good combustion efficiency and combustion optimization is the appropriate control strategy – which the Agency asserts must be considered together with NOx control options to assure that controlling for one air pollutant does not result in increases of another. *Id.* at 25,067-68. But EPA fails to demonstrate that this is the case with all available strategies for NOx and CO control, rather than only EPA's preferred "BDT" technology choice. *See id.* Indeed,

EPA fails to analyze the potential for deeper reductions in NOx and CO from any of the alternative controls it lists in the TSD, as the basis for the proposed standard. EPA admits this, noting that its TSD contains only "a brief summary of some of the NOx control technologies…not a comprehensive list of available technologies. NOx TSD at unnumbered page 1.

EPA also fails to adequately explain why it proposes a NOx+CO limit at a significantly higher emissions rate than its NOx-only emissions rate proposal. The agency asserts only that it has limited CO CEMS data and that it proposes a rate that includes what it refers to as "sufficient compliance margin[s] to not inhibit … the owners/operators of EGUs to comply with NOx specific … BACT requirements or requirements that result from compliance with EPA's proposed Transport Rule." 76 Fed. Reg. at 25,068. On the same preamble page where this statement appears, however, EPA presents NOx+CO data that is up to six years old in some cases, showing 6 out of 10 *then-existing* units – not new units or permits—meeting or *doing better than* the currently proposed 1.2 lb [NOx+CO]./MWh standard for *new* sources. EPA further seeks comment on a range of NOx+CO emissions rates, between 1.0-1.4 lbs [NOx+CO]/ MWh. Table 20 in EPA's preamble shows that 2 of 10 existing sources (again based on old data) meet or do better than the low end of the proposed range. *Id.*

EPA completely fails to explain why it believes that a NOx+CO rate of 1.2 lb/MWh for new sources reflects BDT systems of emission reduction. With respect to NOx-only limits, the Agency acknowledged *in 2005* that at that time many new power plants were able to achieve NOx limits better than 1.0 lb/MWh, and, indeed that a good number of existing units equipped with SCR were achieving NOx emission rates of 0.70 lb/MWh. EPA-HQ-OAR-2005-0031-0027, Response to Comments at 3-2. There is no analysis in this record supporting the need to set a combined NOx+CO rate higher than that. Nor has EPA actually evaluated the performance of the best system of emission reduction for the combined pollutant NOx+CO and set the NOx+CO rate on that basis, in contravention of the statutory

requirements. Clearly EPA's proposed standards for NOx, and for NOx+CO, are not based on BDT systems, and should be tightened. At the very least, EPA must select a standard at the low end of the proposed range under consideration.

3. EPA Must Set Separate Condensable and Filterable PM Standards

EPA proposes a fuel-neutral, output based particulate matter (PM) standard based on Total PM, rather than separate standards for condensable PM and filterable PM. The Agency takes this approach despite acknowledging that there are compatible BDT strategies for each kind of PM. 76 Fed. Reg. at 25,060, 25,064 (BDT for condensable PM is a Wet Electrostatic Precipitator (WESP) system in combination with Dry Sorbent Injection (DSI); BDT for filterable PM is a "Fabric Filter (FF) with coated or membrane filter media bags"). Most of these technologies have been in wide use for decades; dry sorbent injection is possibly the newest, and it is a mature, readily available control option.[7] Despite the availability of other control options (including newer options outlined in the TSD) for controlling condensable and filterable PM, EPA says it need not set separate standards in part because it believes there are no present methods for assuring compliance with a fine filterable PM standard "in wet stack conditions." *Id.* 25,060. Even if this were true, this does not excuse the agency from setting separate filterable and condensable standards, particularly as EPA's proposed monitoring requirements belie the Agency's statements that it cannot keep track of condensable PM and filterable PM separately. EPA's proposed rule requires PM monitoring that includes:

> Method 202 at 40 CFR part 51, Appendix M of this chapter for condensable PM emissions from units and Method 5 (positive pressure fabric filters must use Method 5D) at 40 CFR part 60, Appendix A-3 or A-6 of this chapter for filterable PM emissions.

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[7] URS Corporation, Lipinski, G., *et al.*, "Assessment of Technology Options Available to Achieve Reductions of Hazardous Air Pollutants," A-9 to A-11 (April 2011), available at: http://www.supportcleanair.com/resources/studies/file/4-8-11-URSTechnologyReport.pdf.

76 Fed. Reg. at 25,129 (Proposed rule text: "Table 5 to Subpart UUUUU of Part 63 – Performance Stack Testing Requirements"). Clearly EPA has at its disposal sufficient methodologies to allow it to keep track of condensable and filterable PM separately.

Moreover, as noted *supra*, EPA is charged with setting new source standards based on "what may fairly be projected for the regulated future, rather than the state of the art at present." *Portland Cement Ass'n,* 486 F.2d at 391. Setting separate condensable and filterable PM standards would comport with Congress's intention in enacting section 111 to induce industry to bring to market the systems and technologies for assessing particle size in wet stack conditions, which EPA acknowledges are now in development. 76 Fed. Reg. at 25,060. EPA should revisit this question in a supplemental notice proposing separate condensable and filterable PM standards.

4. EPA's Proposed Total PM Standards Do Not Reflect the Application of BDT Systems of Emission Reduction

Not only has EPA refused to set separate standards for the condensable and filterable species of PM, but the total PM standards EPA proposes do not reflect the application of the BDT systems identified by the Agency, contrary to the clear requirements of the statute. EPA proposes, for new sources, a total PM standard of 7 ng/J or 0.055 lb/MWh, and says it is considering a range of emissions rates from 15 ng/J (or 0.34 lb/MWh) to 5.0 ng/J (0.40 lb/MWh). Information before the Agency however, shows that many existing facilities already meet the proposed 0.055 lb/MWh emissions rate. 76 Fed. Reg. at 25,064 (EPA selected the proposed Total PM standard based on "the top 20 percentile of the performance test data" it acquired under the MACT ICR from existing sources); PM TSD at unnumbered pages 4-6, Table 1 (showing that many existing facilities meet the proposed total PM standard). EPA's proposal to require new facilities simply to meet the same limits already achieved by many existing sources is contrary to the clear requirements of the statute and Congressional purpose to require *new* sources to

apply the *best* demonstrated systems of pollution control – those technologies, methods, or systems that look to the future and yield lower emissions levels of air pollution. *See, e.g.* infra Chapter IX. D. and Table IX- "Permitted Filterable PM/PM10 Emission Limits" (summarizing recent permit limits for filterable PM). Instead, EPA sets PM standards that are "achievable" by all new sources (and even many existing sources) rather than standards that are "achievable" through the application of the best adequately demonstrated system of emissions control, as the statute requires.

5. IGCC Is a Demonstrated System of Emission Control for EGUs, Indeed IGCCs *Are* EGUs Even When They Produce By-product Hydrogen and Hydrocarbons

EPA again asserts, as it did in 2006, that NSPS emissions limits need not be based on the performance of IGCC units – in this proposal asserting that the emissions benefits resulting from the use of IGCC do not justify the higher capital costs associated with the technology. 76 Fed. Reg. at 25,061. EPA acknowledges that IGCC can be considered a control strategy. *Id.* at 25,066 (describing the "use" of IGCC as a control strategy for SO2). But the Agency impermissibly limits its assessment of its potential to the benefits of IGCC to potential NOx, SO2 and PM emissions reductions, rather than considering the environmental benefit IGCC technologies offer in terms of the potential for easier and less expensive carbon dioxide controls. Nor does EPA consider the non-air quality environmental benefits of reduced water use, and reduced coal ash resulting from the production of electricity using an IGCC. *Id.* at 25,061.

New EGUs can achieve far better emission levels using IGCC technology – as EPA stated in 2005, IGCC plants have "only trace SO2 emissions" and "minimal PM emissions" and achieve significantly lower NOx emission rates than pulverized coal plants. See 70 Fed. Reg. 9705, 9715 (Feb. 28, 2005), 2005 RTC at 2-12. IGCC is clearly an available control technology and, where the costs of the near-term need for carbon dioxide control at EGUs is included in the calculation, significantly

beneficial. EPA's decision to dismiss it from consideration as BDT is simply based on the Agency's policy preference for the continued use of pulverized coal and fluidized bed technologies for generating electricity from coal. But the Agency may not elevate its policy preference above the directive to base NSPS on "best systems of emission control" applicable to new sources. *New York v. EPA,* 443 F.3d 880, 889 (D.C. Cir. 2006).

EPA also (somewhat bizarrely) seeks comment on "whether an IGCC unit that co-produces hydrocarbons or hydrogen should be subject to the [combustion turbine] NSPS instead of the EGU NSPS," even when only 20 percent of the coal would be used to produce such byproducts. 76 Fed. Reg. 25,071. EPA's idea does not make sense – indeed it seems logically backwards. IGCC is, as EPA recognizes, a process for converting coal to electricity. *Id.* While not defined in section 111, an "electric utility steam generating unit" is defined elsewhere in the statute as combusting fossil fuel and of a size "more than 25 megawatts that serves a generator that produces electricity for sale." See 42 U.S.C. §7412(a)(8); *see also* 40 C.F.R. § 60.2 (defining an EGU for NSPS purposes as generating more than 25 MW and more than one-third of its potential electric output capacity for sale to any utility power distribution system). EPA offers no reasoned suggestion why an IGCC that sells more than 25 MW electricity or one third its potential electric output capacity for sale to a utility distribution system should be treated any differently from other kinds of processes with by products, for example, steam. The regulations for NSPS make clear that they encompass facilities that co-produce steam, so long as the "electricity sold onto the grid" characteristics are met.

It would seem to defy logic to on the one hand assert, as EPA does, that it seeks to avoid providing incentives to owners or operators of IGCC to circumvent the EGU NSPS, and by the same token to offer them that option if they use a mere 10-20% of their input coal to make byproducts, no matter how much electricity they sell to the grid. IGCCs that sell more than one third their potential electric output capacity and more than 25 MWe to the grid are and should be classified as EGUs,

whether or not they produce useful by products, just as are such turbines that co-produce steam.

6. EPA's Proposed Exemptions Are Unlawful

   a. EPA's Proposed Weaker "Modified Unit" and "Reconstructed Unit" Standards Are Not Lawful.

The Agency also proposes revised SO2 standards for reconstructed units, revised modified and reconstructed unit standards for total PM for NOx+CO or alternatively NOx only for these EGUs. 76 Fed. Reg. at 25,061-63. These "modified" and "reconstructed" unit standards are not authorized by the statute, and therefore unlawful. Moreover, by permitting modified and reconstructed EGUs to escape NSPS, they directly contradict Congressional intent that as existing sources are upgraded they control their emissions to a rate reflecting "best demonstrated technology" for the industry.

Clean Air Act section 165(a) requires owners and operators of major new sources and major modifications of existing sources to undertake preconstruction review and obtain a permit including emissions limits representing the best available control technology ("BACT") for such new and major modified units. 42 U.S.C. §§ 7475(a), 7479(2)(C). "Modification" of an existing source is defined with reference to section 111 of the statute – and BACT is defined as prohibiting any emissions limit that "results in emissions of any pollutant which will exceed the emissions allowed by any applicable [NSPS]." 42 U.S.C. §§7479(2)(C), (3); 7411(a)(4). Congress intended through the interplay of these sections to require existing major stationary sources to meet at *least* the *new source* emissions levels for regulated air pollutants they emit. *See ASARCO*, 578 F.2d at 322. The *ASARCO* court in 1978 made clear that:

> Under the Act the NSPSs apply to "new sources." A "new source" is defined as "*any* stationary source, the *construction or modification* of which" begins after the NSPS covering that type of source is published. … The statute thus directs that the NSPSs are to apply to any building, structure, facility, or installation which emits or may emit

> any air pollutant and which is either (1) newly constructed or (2) physically or operationally changed in such a way that its emissions of any air pollutant increases.

Id. (emphasis in original). Furthermore, section 111(b)(2) permits EPA to "distinguish between classes, types and sizes *within categories of new sources* for the purpose of establishing standards," 42 U.S.C. §7411(b)(2), this language does not authorize the Agency to set less lenient standards for "modified sources" or "reconstructed" sources. Indeed, separate modified and reconstructed unit standards violate not only the language but the purpose of this section of the Act. *See ASARCO*, 578 F.2d at 322 (Section 111 designed to force "new sources" to employ the *best* demonstrated systems of emissions reduction) (emphasis added). Tellingly EPA offers no legal support for this aspect of this proposal, merely announcing that it is revising existing modified unit standards. But just because EPA has in the past issued an unlawful regulation does not mean that regulation is any more lawful when it is revised and reissued. *F.J. Vollmer Co. v. Magaw,* 102 F.3d 591, 598 (D.C. Cir. 1996).

EPA also has provided no technical justification for the proposed "modified unit" standards – the record does not contain analyses demonstrating that modified sources could not meet the new source standards. The Agency's Technical Support documents merely make unsupported references to difficulties with retrofitting certain technologies in certain situations – but that is not sufficient to show that Congress did not mean what it said in requiring new and modified sources to meet at least NSPS emissions limits. Nor does it support EPA's attempt to exempt modified sources from the "new source" NSPS, rather than requiring them to achieve deeper reductions through application of a more stringent BACT limit, are required by sections 165(a) and 169. Nor has EPA shown that *reconstructed* units -- which under EPA's rules are essentially new units[8] -- cannot meet EPA's proposed "new source" NSPS emissions rates.

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[8] *See* 40 C.F.R. §60.15(b)(1) (defining a "reconstructed" unit for NSPS purposes as "the replacement of components of an existing facility to such an extent that (1)

EPA's modified and reconstructed unit standards seem designed to provide incentives to owners and operators of existing sources to continue running them as modified sources subject to the less stringent emissions rate, rather than ever replacing them with newer, more efficient, and better controlled generation. Clearly that purpose is outside of the authority granted EPA in section 111 – and just as clearly it represents EPA unlawfully elevating a policy preference over the plain text requirements of the statute. *See New York,* 443 F.3d at 889 ("EPA may not 'avoid the Congressional intent clearly expressed in [statutory text] simply by asserting that its preferred approach would be better policy' " (quoting *Engine Mfrs Ass'n v. EPA*, 88 F.3d 1075, 1089 (D.C. Cir. 1996)).

b. EPA's Proposal for "Commercial Development Permits" that Would Completely Exempt EGUs Using "Innovative Technologies" From the New NSPS Contravenes the Plain Language of the Statute, the Statute's Purposes, and Moreover, Defies Logic

EPA proposes to completely exempt from the new NSPS the "first 1000 MW of full-scale demonstration units of pressurized fluidized bed technology and EGUs using a multi-pollutant control technology," through a "commercial demonstration permit." 76 Fed. Reg. at 25,069 . EPA also proposes to issue commercial demonstration permits to for the first 1000 MW of units with "advanced combustion controls." *Id.* Units with such permits will be exempt from the proposed NSPS, and instead required only to meet the existing NSPS. These proposals completely contravene the plain text of section 111(j), and undermine its purposes, as well as the larger purposes of section 111 generally.

Section 111(j) does include express authority for a *temporary case-by-case* waiver from the NSPS, in order to "encourage the use of an innovative technological system or systems of continuous emission reduction," 42 U.S.C. §7411(j)(1)(A), that are *not* "adequately demonstrated," *and* that have a "substantial likelihood"

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fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and (2) It is technologically and economically feasible to meet the applicable [NSPS].").

(considering any previous failures to operate effectively or to meet NSPS) of achieving "*greater continuous emission reduction* than that required to be achieved under the standards of performance which would otherwise apply, or achieve *at least an equivalent reduction*, at lower cost in terms of energy, economic, or nonair environmental impact…." *Id.* § 7411(j)(1)(A)(i) & (ii)(emphases added). The waiver applies to the portion of the source on which the innovative system is used. *Id.* § 7411(1)(F).

The statute however does not offer a *complete exemption* from the requirement to meet NSPS, but rather provides *additional time* for an owner or operator to meet the NSPS where a truly innovative and undemonstrated control system is utilized. The source is allowed an extended period of time: up to 7 years after the waiver is granted, or 4 years after source commences operation, whichever is earlier, *id.* § 7411(j)(1)(E), to bring the new technology *into compliance with* the applicable NSPS.[9] Clearly then, the Act does not authorize the Administrator to permanently exempt even first movers from the applicable NSPS, in the name of promoting "innovative technologies." EPA cannot by creating a specific standard for some first mover technologies subvert the clear Congressional purpose that all innovative technologies will meet the new source standards within the 8 year period before the standards are again up for review.

The Administrator is just as clearly not authorized to issue blanket exemptions for particular "innovative technologies." The statute requires that any waivers the Administrator is authorized to make must be granted only on a case-by-case basis, and with the consent of the relevant State Governor,[10] where the owner

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[9] That Congress intended the waivers to be temporary is further illustrated by the detailed requirements to get an extension of a waiver once granted; the statute says an extension is only possible if the system fails to perform as expected, and then only for "such minimum period as necessary to comply" with the otherwise applicable NSPS, and extending up to 3 years. *Id.* § 7411(j)(2).

[10] The Governor as a general rule may delegate this authority to consent, to the relevant person at the state permit-issuing authority.

or operator of the proposed system demonstrates "that the proposed system will not cause or contribute to unreasonable risk to public health, welfare, or safety in its operation, function, or malfunction" (considering effects on other pollutants and methods for reducing risk to public health, among other factors listed in the statute). *Id.* §7411(j)(1)(A)(iii) & final paragraph. And, the Administrator is authorized to set permit terms and conditions as necessary to assure that emissions from the source will not prevent attainment or maintenance of any NAAQS and the proper functioning of the system. *Id.* §7411(j)(1)(B). While the Administrator also can determine the number of waivers that may be granted overall to a particular system of continuous emission reduction, that number "shall not exceed such number as the Administrator finds necessary" to ascertain whether the proposed system will operate effectively, and satisfy the other criteria of § 7411(j)(1)(A)(ii) and (iii). *Id.* §7411(j)(C).

Given the detail with which Congress crafted and limited EPA's authority to provide any exemption from the NSPS, it is unimaginable why EPA thinks it has authority to issue the "commercial demonstration permit" offramp from NSPS it proposes. EPA cites the 1973 opinion in *Essex Chemical v. EPA,* 486 F.2d 427 (DC Cir. 1973). 76 Fed. Reg. at 25,068. However, that case had *nothing* to do with "innovative technology" exemptions, but rather required EPA to consider nonair environmental impacts when setting an NSPS, as required by Section 111(a)(1). More pertinent legal doctrine may be found in the recent D.C. Circuit Court opinion holding invalid EPA's decision in the Clean Air Interstate Rule to limit or terminate acid rain program allowances issued under Title IV of the Clean Air Act, and stating that EPA "'is a creature of statute,' and has 'only those authorities conferred upon it by Congress'; 'if there is no statute conferring authority, a federal agency has none.'" *North Carolina v. EPA,* 531 F3d 896, 922, *modified on reh'g* 550 F.3d 1176 (D.C. Cir. 2008).

EPA also offers is its *policy* perspective that these Congressional provisions "are not adequate to encourage certain capital intensive technologies." 76 Fed. Reg.

at 25,068. That may be true, but it does not authorize EPA to ignore or circumvent them. EPA's statements make clear that the proposed "commercial demonstration permits" are really an unvarnished – and unlawful-- attempt by the Agency to elevate its policy preferences over the plain requirements of the statute. *See New York,* 443 F.3d at 889.

Of course, an alternative approach to encouraging the development of new technologies that are already in limited use would be to do as Congress intended, and establish them within the ambit of "best demonstrated systems of emission control" on which the NSPS is required to be based. This is the approach EPA used in selecting SCR as the BDT system of emission reduction for the 1998 NSPS for EGUs and industrial boilers, an approach that was upheld in federal court. *Lignite Energy Council,* 198 F.3d at 932-933. EPA's 1998 approach in forcing the development and application of relatively new control technologies with stringent NSPS is consistent with the Act, and as a policy matter, far preferable to the approach proposed in this rulemaking – that is, setting relatively lax NSPS and then proposing further exemptions even from those standards in the name of "encouraging" development of innovative control technologies. Far better to "stimulate and augment the innovative character of industry in reaching for more effective, less costly systems to control air pollution" by setting standards that industry must reach to meet, as Congress intended. *Sierra Club*, 657 F.2d. at 347, n. 174.

Finally, EPA has made no real showing that exemptions are even needed to encourage application of the specified 'innovative technologies"—pressurized fluidized beds, multi-pollutant controls, and advanced combustion controls. In fact, one of the listed technologies—advanced combustion controls—is already part of NOx best demonstrated technology (along with SCR), and thus is one of the bases EPA relies on in setting the NSPS. Exempting such technology from the proposed NSPS would have the perverse effect of providing an economic incentive for a unit to forgo SNCR or SCR and thereby obtain a lower control requirement.

c. EPA's Proposed Exemption for Units Burning Coal Waste Is Unlawful

As part of the NSPS proposal, EPA creates "exemptions" for units burning coal refuse. EPA proposes to exempt units burning more than 75% coal-refuse (on an annual basis) from the proposed new SO_2 NSPS, and to require such units instead to only meet the existing, more lenient standard. 76 Fed. Reg. at 25,066. EPA suggests that these units "warrant special consideration" because of the "unique environmental benefits" that such units provide – but the Agency does not provide any reasoning why it proposes to offer such "consideration" in the form of an unlawful exemption, instead of through the mechanism provided by the statute – namely to distinguish a subcategory of these units. See 42 U.S.C. §7411(b)(2) ("the Administrator may distinguish among classes, types and sizes within categories of new sources for the purpose of [setting NSPS]. While we do not concede, based on the information provided in the proposal, that such a subcategory would be sufficiently justified if EPA had offered it, at least the mechanism chosen would be lawful. EPA would then of course need to show what constitutes BDT systems of emission reduction for the subcategory and propose an NSPS for the subcategory at that level, not simply revert to the NSPS currently in place.

While we may have no quarrel with the assertion that such units can *potentially* provide environmental benefits by allowing coal refuse piles to be cleaned up and the relevant land to be reclaimed, there is absolutely no assurance that burning coal refuse will by itself provide these benefits, and indeed, there is no requirement in EPA's proposal for such units to do so. Furthermore, EPA has offered *no* showing that such units (particularly newly built units, which EPA seemingly seeks to encourage) cannot meet the proposed NSPS SO_2 standards, or alternatively, that the existing NSPS actually represent BDT for such units. Rather, EPA seems to be simply proposing a weaker emission standard for such units in an effort to reduce their construction costs.[11] Like the "commercial

[11] EPA offers no justification for exempting rebuilt or modified coal refuse units from the proposed NSPS.

demonstration permit" exemption, this is clearly a situation where EPA unlawfully puts its policy preferences above the plain text of the statute. *See New York,* 443 F.3d at 889.

Similarly, EPA seeks comment on whether to create a separate sub-category for coal refuse-burning EGUs due to the lower Btu content of the fuel, and *then* to exempt such units from both the proposed SO2 and NOx NSPS, and instead require that they only meet the more lenient existing NSPS. 76 Fed. Reg. at 25,072. But EPA has not shown (and it must) that the existing NSPS represent application of BDT systems of emissions reduction for the coal refuse-burning subcategory. Indeed, EPA has stated elsewhere in its proposal that it desires to establish "emission standards that encourage unit efficiency by relating emissions to the amount of useful-energy generated, not the amount of fuel burned." 76 Fed. Reg. at 25,063. We support this principle, and see no reason that it should not be applied to all EGUs, including those burning coal refuse with lower Btu content.

7. EPA's Proposal to Remove the Vacated CAMR Provisions From the NSPS Rules is Long Overdue.

In 2008, the D.C. Circuit ruled that EPA had unlawfully delisted coal- and oil-fired EGUs, and therefore vacated the "Clean Air Mercury Rule," under which EPA had attempted to regulate new and existing EGU mercury emissions by setting NSPS, in its entirety. *New Jersey v. EPA,* 517 F.3d 574, 577-578 (D.C. Cir. 2008), *cert. denied,* 129 S.Ct. 1308 (2009). EPA now proposes to deleted the vacated provisions, along with regulations promulgated as part of CAMR, as they are no longer valid or enforceable. This action is long overdue and we support the Agency taking affirmative steps, now to remove the vacated provisions from the published regulations.