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RE: Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units (Docket ID No. EPA-HQ-OAR-2011-0660)

The American Clean Skies Foundation (ACSF) is a non-profit organization founded in 2007 to advance U.S. energy independence and a cleaner environment through the expanded use of natural gas, renewable energy, and energy efficiency. ACSF appreciates the opportunity to submit these comments on the proposed “Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units” (hereafter the Proposed Rule).¹

I. Executive Summary

The Proposed Rule sets the first-ever standards for greenhouse gas (GHG) emissions from fossil fuel-fired power plants. This is a crucial step to regulating GHG emissions and it has ACSF’s support.

As EPA notes, fossil fuel-fired power plants “are responsible for approximately 40 percent of all anthropogenic CO₂ emissions” and are the largest source of greenhouse gas emissions in the United States.² Significantly, in the Proposed Rule, EPA recognizes that natural gas combined cycle units (NGCC) can be “readily and cost-effectively used to reduce GHG

¹ The Proposed Rule was published at 77 Fed. Reg. 22,392 (April 13, 2012).

² See 77 Fed. Reg. 22,395 and the Regulatory Impact Analysis for the Proposed Rule at Table 4-5, available at <http://www.epa.gov/carbonpollutionstandards/pdfs/20120327proposalRIA.pdf>.

emissions from new fossil fuel-fired power plants.”³ By comparison, coal-fired power plants emit significantly larger amounts of GHGs than NGCC units.

The Proposed Rule provides important regulatory clarity regarding future emission control requirements. EPA notes that by specifying emission control requirements “this rulemaking eliminates uncertainty about the status of coal and may well enhance the prospects for new coal-fired generation” and the deployment of carbon capture and storage (CCS).⁴

Notably, various power generators have supported this rulemaking. For instance, Ralph Izzo, PSEG Chairman and CEO, has stated that EPA’s “action establishes a logical and modest standard for new electric power plants and provides the industry with much needed regulatory certainty. The EPA provides a framework for the industry to confront this problem in a cost effective manner.”⁵

ACSF supports key aspects of this rule. The Proposed Rule importantly recognizes the role of natural gas as a foundation of a cleaner electric power sector. Furthermore, ACSF supports the Proposed Rule’s focus on the *function* of a power plant unit, not the *fuel*, in setting the emission standard. ACSF has been a strong advocate of technology and fuel-neutral approaches to regulating GHG emissions.⁶ However, the EPA’s approach to regulating power plant GHG emissions should be strengthened in several important respects:

- The proposed “30-year averaging” scheme raises enforceability problems, delays the benefits of the proposed rule, and fails to incentivize new technology. EPA should significantly shorten this averaging period and strengthen measures to ensure that promised emission controls will actually be installed.
- EPA should regulate reconstructed sources.
- EPA should regulate existing units, while maintaining the exemption for low-emitting fossil plants such as natural gas-fueled units.

These issues are further discussed below.

³ 77 Fed. Reg. 22,395.

⁴ 77 Fed. Reg. 22,430.

⁵ See <http://pseg.com/info/media/newsreleases/2012/2012-03-27.jsp>. The Clean Energy Group (a coalition of power companies that includes the Calpine Corporation, Exelon, National Grid, the New York Power Authority, Nextra Energy, and others) also has expressed support for the rule as “a modest step that provides the industry with business and regulatory certainty.” See <http://www.thecleanenergygroup.com/documents/CEG%20Statement%20on%20Proposed%20GHG%20NSPS%20for%20New%20Sources.pdf>.

⁶ See e.g., ACSF’s comments on EPA’s proposed “2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards,” available at www.cleanskies.org.

II. Discussion

A. The Proposed Rule importantly recognizes natural gas as a foundation of a cleaner electric power sector.

The Proposed Rule establishes New Source Performance Standards (NSPS) for new fossil fuel electric generating units. Specifically, EPA sets an NSPS emission limit of 1,000 lb/CO₂ per megawatt-hour. In doing so, EPA bases the performance standard “on the performance of widely used natural gas combined cycle...technology.”⁷ Thus, these inherently low-emitting NGCC units literally “set the standard” and would not be required to install additional control equipment to reduce GHG emissions. ACSF supports this approach.

In basing the Proposed Rule’s emission standard on NGCC units, EPA recognizes the substantial environmental benefits of natural gas generation. EPA finds that these natural gas units qualify as the “best system of emission reduction” for carbon dioxide, as they are “far less polluting” than coal power plants and emit only about 50 percent of the CO₂ emissions of per unit of energy generated.⁸ EPA further finds that a typical new state-of-the art pulverized coal facility, even one that *meets* recent federal air quality regulations, would still have “considerably greater” emissions of other pollutants than a NGCC facility, including emissions of sulfur dioxide, NO_x, toxic metals, acid gases, and particulate emissions.⁹

Furthermore, EPA finds that natural gas used for power generation not only has lower air emissions than coal-fired power but “fewer non-air quality health and environmental impacts.”¹⁰

In short, EPA recognizes natural gas units as a foundation of our nation’s clean energy future. EPA makes a number of notable comments in support of this, including that:

Natural gas prices have stabilized over the past few years as new drilling techniques have brought additional supply to the marketplace. As a result, natural gas prices are expected to be competitive for the foreseeable future and utilities are likely to rely heavily on natural gas to meet new demand for electricity generation.¹¹

⁷ 77 Fed. Reg. 22,392.

⁸ 77 Fed. Reg. 22,398.

⁹ Proposed Rule Regulatory Impact Analysis, p. 5-20.

¹⁰ 77 Fed. Reg. 22,399.

¹¹ 77 Fed. Reg. 22,413.

EPA further finds that “natural gas-fired plants are the facilities of choice” in the power sector and that new sources can “readily comply with the proposed emission standards by choosing to construct a NGCC unit.”¹²

ACSF agrees with EPA that natural gas is key to our nation’s clean energy future. Indeed, ACSF has made this point in comments to EPA on several EPA rulemakings, and appreciates EPA’s recognition of this essential point.¹³

Of course, other sources of low-emitting power, such as renewable energy, also have a key role to play in reducing power sector emissions. But natural gas also has been broadly recognized as playing a key role in providing load-support to variable renewable energy when the wind is not blowing and the sun is not shining.¹⁴

In short, the Proposed Rule makes one thing clear: natural gas is likely to be a foundational element of our nation’s clean energy strategy for the foreseeable future. ACSF agrees and commends EPA for making this important recognition of the important role of natural gas.

B. The Proposed Rule appropriately looks at the *function* of a power plant unit, not the *fuel*, in setting the standard.

In the proposed rule, EPA requires that coal and NGCC power plants meet the same emission standard “because they serve the same function, that is to serve baseload or intermediate demand” for electricity.¹⁵

In establishing this NSPS, EPA notes that “all newly constructed sources have options in selecting their design” and “prospective owners and operators of new sources could readily

¹² 77 Fed. Reg. 22,418 and 22,410.

¹³ See e.g., www.cleanskies.org for comments that ACSF has submitted to the dockets for EPA’s Mercury and Air Toxics Standards (MATS) and the related NSPS (Docket numbers EPA–HQ–OAR–2009–0234 and EPA–HQ–OAR–2011–0044) and on the Cross-State Air Pollution proposed rule (Docket number EPA–HQ–OAR–2009–0491), as well as comments to the Department of Energy regarding electric transmission issues and the Federal Energy Regulatory Commission regarding its role in processing compliance extension requests under the MATS (Docket No. AD12-1-000).

¹⁴ See e.g., the ACSF report *The Business Case for Integrating Clean Energy Resources to Replace Coal* (June 2011), available at www.cleanskies.org.

¹⁵ 77 Fed. Reg. 22,398. Specifically, “EPA is proposing to combine electric utility steam generating units (boilers and IGCC units, which are currently included in the Da category) and combined cycle units that generate electricity for sale and meet certain size criteria (which are currently included in the KKKK category), into a new category for new sources (the TTTT category) for the purposes of GHG emissions.” 77 Fed. Reg. 22,394.

comply with the proposed emission standards by choosing to construct a NGCC unit.”¹⁶ ACSF agrees with this assessment. For instance, the Department of Energy has found that natural gas is widely available and can be delivered “to power plants in most locations in the lower 48 states.”¹⁷ Additionally, natural gas units involve a known technology with low capital costs and the levelized cost of generation from a new natural gas power plant is expected to be lower on average than from a new coal-fired power plant.¹⁸

Significant EPA precedent exists for focusing on the function rather than fuel of a unit in regulatory approaches. EPA finds in the Proposed Rule that it “has previously combined one type of baseload and intermediate load combined cycle unit (IGCC, previously covered under Subpart GG) with Da units for the purposes of setting a standard.”¹⁹

Furthermore, a variety of other precedent supports EPA considering the function of a unit rather than its fuel for air permitting purposes. For instance, in evaluating appropriate control technologies required for related Clean Air Act preconstruction permitting, precedent holds that the permitting authority should focus on the “basic business purpose” for a proposed facility when discerning which design elements “may be changed to achieve pollutant emissions reductions” as part of the permitting process.²⁰ And these design changes may include the use of

¹⁶ 77 Fed. Reg. 22,410.

¹⁷ DOE, *National Electric Transmission Congestion Study* (2009), p. 24, available at http://congestion09.anl.gov/documents/docs/Congestion_Study_2009.pdf.

¹⁸ See e.g., Proposed Rule Regulatory Impact Analysis, pp. 5-3 and 5-5.

¹⁹ 77 Fed. Reg. 22,411.

²⁰ *In re: Cash Creek Generation, LLC*, Petition Nos. IV-2008-1 & IV-2008-2, 2009 EPA CAA Title V Lexis 4 (Dec. 15, 2009), at *22 (EPA rejected a state-issued PSD permit for an IGCC power plant in Kentucky because EPA found that natural gas was available and the permitting authority should have considered a gas-fired power plant as an alternative). See also, *In re: Desert Rock Energy Company, LLC*, PSD Permit No. AZP 04-01, 2009 EPA App. Lexis 28 (September 24, 2009) at *121 (the Environmental Appeals Board remanded a permit for a coal-fired power plant because the permitting authority failed to consider IGCC, finding that a permit issuer should take a hard look at which design elements are inherent for the applicant's purpose and which design elements "may be changed to achieve pollutant emissions reductions without disrupting the applicant's basic business purpose for the proposed facility"); accord *In re: American Electric Power Service Corporation*, Petition No. VI-2008-01, 2009 EPA CAA Title V LEXIS 11 (Dec. 15, 2009), *25 (EPA rejected a state-issued permit for a coal-fired power plant in Arkansas for the Turk Generating Station because the permitting authority failed to consider IGCC).

cleaner fuels such as natural gas. Thus, the focus is on the product (i.e., providing baseload or intermediate electricity) regardless of whether a power plant is fueled with natural gas or coal.²¹

Additionally, EPA has established NSPS emission limits for power plants that apply “regardless of fuel type.”²² In adopting this fuel-neutral approach, EPA acknowledged the inherently low emissions of natural gas and has previously found that under the NSPS provisions using natural gas may be “a more cost-effective option” than installing controls at coal-fired power plants.²³

Given the Proposed Rule’s focus on the *function* of a power plant, ACSF supports the decision not to regulate simple-cycle combustion turbines under this NSPS. ACSF agrees with EPA decision not to include such turbines in this rule “because they generally operate differently” and “are generally used much less often (and thus have lower GHG emissions) and are generally used to meet peak demand rather than base or intermediate load requirements.”²⁴

EPA further requested comment on whether not regulating combustion turbines under this NSPS “would provide a perverse incentive to build less efficient simple cycle combustion turbines in order to avoid applicability with the proposed rule.”²⁵ ACSF submits that no such perverse incentive would arise if the NSPS standard is finalized as proposed at a level no more stringent than 1,000 lb CO₂/MWh, because simple cycle turbines have fundamentally different performance characteristics than NGCC units. NGCC units have much higher efficiencies, and

²¹ See e.g., *In re: Hibbing Taconite Company*, 1989 EPA App. Lexis 24, 2 E.A.D. 838 (July 19, 1989) at *12. In this case, the Environmental Appeals Board remanded a PSD permit for a taconite plant for failure to consider burning natural gas instead of pet coke. The EAB found that natural gas had to be considered because other plants making the same product used gas. See also the Clean Air Act statutory requirement at 42 U.S.C. § 7479(3) that “clean fuels” be considered when evaluating similar Best Available Control Technology (BACT) requirements under the PSD preconstruction permitting program.

²² See e.g., 40 CFR § 60.44Da(d),(e) and (g) and the final rule, *Revision of Standards of Performance for Nitrogen Oxide Emissions from New Fossil-Fuel Fired Steam Generating Units*, 63 Fed. Reg. 49,442, 49,443 (September 26, 1998). Comments on this 1998 EPA rulemaking noted that natural gas had been penalized by being subject to more stringent emission control requirements than coal-fired units, and that a fuel-neutral approach would “remove any disincentive toward natural gas that has been created by this situation.” *Id.* at 49,445. The regulatory analysis continues to hold true for this current Proposed Rule. See also, *North Carolina v. EPA*, 531 F.3d 896, 920-921 (D.C. Cir. 2008), which invalidated an EPA Clean Air Act rule for failing to be fuel neutral as it unfairly penalized natural gas units versus higher emitting fossil units.

²³ 63 Fed. Reg. 49,446.

²⁴ 77 Fed. Reg. 22,398.

²⁵ 77 Fed. Reg. 22,432.

thus are designed for baseload and intermediate operations. As noted above, simple cycle turbines are generally designed for peaking operations that involve particularly fast ramping from “cold starts.” As long as the NSPS is not overly restrictive for NGCC units, there should be no perverse incentive to install a simple cycle turbine when a higher-efficiency NGCC unit would ordinarily be installed.

C. The proposed “30-year averaging” scheme raises enforceability problems, delays the benefits of the proposed rule, and fails to incentivize new technology; EPA should significantly shorten this averaging period and strengthen measures to ensure that promised emission controls will actually be installed.

The Proposed Rule would allow coal-fired power plants to comply with the 1,000 lb CO₂/MWh standard on a 30-year average basis. Under this provision, coal plants could delay installation of CCS technology for a period of up to ten years.²⁶

Unfortunately, this 30-year period raises serious enforceability issues. EPA itself recognizes that this 30-year period is “unique” and “may give rise to new issues concerning compliance and enforcement.”²⁷ Regarding enforceability, EPA has stated in other contexts that it is “important that permit conditions be unambiguous and do not contain language which may intentionally or unintentionally prevent enforcement.”²⁸ By allowing an extremely long averaging period (i.e., 30 years), EPA may be unintentionally preventing enforcement. For example, if a new source began operation with the intent to comply with EPA’s 30-year averaging scheme, but ceases operation in year nine, that source will have failed to meet the emissions average, thus violating the standard. It is uncertain that EPA would be able to pursue violations for the years in which it had been operating without meeting the emissions average.²⁹

²⁶ Under the 30-year averaging period, Coal plants that use this compliance alternative must meet an immediate performance standard of 1,800 lb CO₂/MWh, which can be achieved by a “supercritical” efficiency level. By the 11th year, the facility must meet a reduced CO₂ emission limit of no more than 600 lb CO₂/MWh for the remaining 20 years of the 30-year period, such that the weighted average CO₂ emissions rate from the facility over the 30-year time period would be equivalent to the proposed standard of performance of 1,000 lb CO₂/MWh. *See e.g.*, 77 Fed. Reg. 22,394.

²⁷ 77 Fed. Reg. 22,407.

²⁸ *See* U.S. EPA, *Guidelines: Practical Enforceability* (September 9, 1999), p. III-55, available at <http://www.epa.gov/region9/air/permit/titlev-guidelines/practical-enforceability.pdf>.

²⁹ For instance, in *United States v. Ill. Power Co.*, 245 F. Supp. 2d 951 (S.D. Ill. 2003), the court granted summary judgment with regard to civil penalties sought for NSPS violations because the alleged failure to comply with NSPS resulted in discrete violations that were complete at time of construction. Since the case was brought more than five years after the latest alleged modification, civil penalties were barred by statute of limitations. Thus, by allowing this long averaging period, EPA opens the possibility of preventing enforcement.

Additionally, to be practically enforceable, requirements should have “monitoring, recordkeeping, and reporting to make it possible to verify compliance and provide for documentation of non-compliance.”³⁰ EPA’s proposed 30-year averaging approach, which allows for 10 years before CCS must be installed, raises the risks of a significant period of inactivity regarding the implementation of pollution controls that is not susceptible to monitoring to verify that such measures will in fact take place. A shorter averaging period, with clear milestones to development and more imminent implementation, solves this problem.

Indeed, EPA’s proposed 30-year averaging approach, unless additional protections are put in place, is contrary to standard tenants of environmental law that require that permitting and environmental controls be assessed and in place *before* action is taken.³¹ Indeed, the NSPS program is a regulatory analog to the “preconstruction” permitting program that EPA references throughout the Proposed Rule.³² However, the Proposed Rule as drafted subverts the notion of preconstruction permitting by allowing mandated pollution controls to be delayed for ten years without sufficient measures to ensure that those pollution control provisions will adequately be installed.

A lengthy, 30-year averaging period (with a 10-year period before controls are installed) exacerbates the risk that CCS for a particular unit may never be installed, and in doing so fails to adequately incentivize the technology. The further out in time the installation of control technology is required, the more opportunity there is for contingencies to intervene that may frustrate the installation of those controls, such as adverse changes to the financial health of a particular power plant owner/operator. Furthermore, if installation of control equipment is 10 years or more in the future, this increases the risk that there may be insufficient early evaluation of, and planning for, deploying CCS at a particular location. And if a unit is built but not properly controlled, there may nevertheless be strong pressure to keep an already-constructed unit operating (as witnessed by aging coal-fired power plants that have continued to operate under “reliability-must-run” or similar agreements).³³

³⁰ See U.S. EPA, *Guidelines: Practical Enforceability*, *supra* at p. III-55.

³¹ For instance, under the National Environmental Policy Act (NEPA), environmental requirements are integrated “with other planning at the earliest possible time to insure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts.” See 40 CFR 1501.2.

³² For instance, the Proposed Rule notes that under “EPA’s regulations for the CAA PSD *preconstruction* permit program...regulation of GHGs under CAA section 111 triggers the applicability of PSD” (emphasis added). 77 Fed. Reg. 22,428. Elsewhere, EPA states that the purpose of preconstruction permitting is that “advances in pollution control occur concurrently with industrial expansion.” See *e.g.*, <http://www.epa.gov/nsr/>. However, a 30-year averaging period would subvert this bedrock principle.

³³ See *e.g.*, Synapse Energy Economics, *Public Policy Impacts on Transmission Planning* (December 2010), p. 26 (noting that reliability-must-run agreements result in “excessive costs to ratepayers

A 30-year averaging period also raises issues regarding financing. In regulated markets, utilities typically seek approval for financing costs associated with new power plants before undertaking the projects. By allowing delayed deployment of carbon capture technology, EPA is increasing regulatory risks for regulated utilities because future commissions may not approve cost recovery of the carbon capture technology if it is deemed too expensive. Merchant generators in wholesale markets, on the other hand, must secure financing from debt and equity investors and do not have a guaranteed cost recovery mechanism. Delaying the deployment of carbon capture technology may compromise the financing ability of both regulated and merchant generators by increasing a project's overall risk of performance. Furthermore, if financing is initially obtained for the construction of a generating unit, but not at the same time for the pollution control equipment, this could result in a slew of stranded assets.

Furthermore, a lengthy averaging period delays the emission benefits of the proposed rule. This conflicts with EPA statements that it is "important to take initial steps to control the largest emissions categories without delay."³⁴

ACSF suggests that the maximum practicable period for averaging should be 10 years (not 30). This could effectively require CCS to be in place within 5 years. Doing so would allow for enforceable plans for implementation (reducing the amount of years that EPA might have to retroactively pursue enforcement if the emission limits toward the end of a multi-year averaging period are not met).

Furthermore, a shorter averaging period can strengthen the likelihood that controls will be timely installed for a new power plant. In terms of ensuring that controls are timely installed, the Proposed Rule states that power plants not initially installing CCS "could be required to submit a plan that includes a location to store CO₂ and a schedule for construction and operation of their carbon capture system" and that the "schedule would include key milestone dates such as soliciting proposals, obtaining financing, beginning construction, and beginning operation."³⁵

ACSF agrees and suggests that if the installation for CCS is delayed for any period beyond when a new power plant commences commercial operation, EPA should go *further* on requiring project milestones for CCS deployment. First, at the time of initial permitting, EPA should require that a power plant developer has undertaken minimum actions taken to confirm the feasibility of CCS, including the acquisition of geological storage rights, the completion of underground injection permitting, and the finalization of all financial and liability aspects with

potentially paired with periods of environmental non-compliance, a lose-lose result for consumers that are obliged to pay uncontrolled plants to continue polluting"), available at <http://www.synapse-energy.com/Downloads/SynapseReport.2010-12.EJ.Public-Policy-Impacts-on-Transmission.10-064.pdf>.

³⁴ 77 Fed. Reg. 22,396.

³⁵ 77 Fed. Reg. 22,406.

respect to the CCS. Second, binding contracts with entities such as control technology providers should be in place at the time of initial permitting for a new power plant (and these contracts should provide for contractual penalties if any of the involved parties fail to perform).³⁶

Thus, practical enforceability should be ensured through firm milestones that are unlikely to be breached because: (a) the power plant developer will have undertaken sufficient investigations into the feasibility of air control measures so as to be able to enter into binding contracts with control technology providers, (b) such binding contracts would have their own commercial consequences if breached, (c) the installation of pollution control measures is close enough in time (five years rather than ten) that EPA can seek full enforcement for years 1-5 of the plant's operations if the requisite emissions average is not achieved by the installation of pollution controls, and (d) the physical installation of control equipment is close enough in time (5 years versus 10) that such imminent installation will inevitably promote more thorough early planning and development activities, maximizing the likelihood that such pollution control measures will actually occur.³⁷

In summary, a 30-year averaging period is much longer than many business cycles, and therefore creates additional challenges and uncertainty for regulators, financiers and businesses developing and deploying carbon capture technology. By comparison, a 10-year averaging period (requiring the installation of pollution control measures within 5 years) is more in line

³⁶ EPA has previously relied on power plants having firm contracts for regulatory purposes, such as determining whether construction has commenced for assessing which NSPS standards may be applicable. *See, e.g., United States v. Painesville*, 431 F. Supp. 496 (N.D. Ohio 1977) (finding that, because no contract for the production of a power plant boiler had been entered into, construction had not progressed to the point that “a change in its design would have required the facility already erected to be modified in order to insure that it could comply with the sulfur dioxide emission standards of 40 C.F.R. § 60.43.”). Furthermore, EPA regulations for existing sources require, under certain circumstances, “legally enforceable increments of progress” to demonstrate compliance with an NSPS, including the submittal of “control plans” and the “awarding of contracts for emission control systems.” 40 CFR 60.21(h) and 60.24(e). As another example of “binding contracts” as a regulatory requirement, under EPA’s acid rain program units applying for certain extensions from regulatory requirements (allowed when units were repowering to a cleaner coal technology) were required to submit “documentation of a preliminary design and engineering effort...and binding contract...for the majority of the equipment to repower the unit using the technology conditionally approved by the Administrator.” 40 CFR 72.94(a). ACSF’s proposal would similarly make the existence of a binding contract a key regulatory marker; without a binding contract to install CCS, no permit should be granted that would allow construction of other key portions of a power plant, such as the power block.

³⁷ For example, EPA often requires parties to consent decrees to develop timelines installing pollution control equipment or other measures. ACSF proposes that such power plant GHG NSPS requirements (if they allow long-term averaging) should similarly include specific milestones, including binding contracts in place at the time of initial operation. These milestones could be specifically incorporated into a facility’s Title V operating permit.

with business cycles and allows for contracts with carbon capture technology vendors and other necessary contracts and financing to be in place at the time a unit commences initial operation. Ultimately, a shorter averaging period provides state regulators and financiers with certainty that the project they are providing funding for will, in fact, comply with regulations and not become a stranded asset.

The 30-year proposed averaging period also presents a challenge for enforcement, and therefore, creates uncertainty about whether meaningful carbon dioxide emission reductions will occur. Adopting a 10-year averaging period allows power plant developers to spread out the costs of their investment and ease into technology deployment, while also ensuring that EPA can effectively monitor carbon dioxide emissions and pursue enforcement measures if necessary.

D. EPA should regulate “reconstructed” sources.

Reconstructed power plants are those where a facility extensively replaces components and the “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.”³⁸ Under existing EPA regulations, due to the extraordinary scope of these component replacements, reconstructed sources trigger NSPS permitting and are “treated as new sources.”³⁹

In the Proposed Rule, EPA suggests that it will not regulate reconstructions under the power plant NSPS. The Proposed Rule incorrectly states that if EPA does “not establish a new standard of performance for reconstructions, as a practical matter, that would mean that reconstructed sources would be treated as existing sources.”⁴⁰ The *correct* interpretation, as clearly indicated elsewhere in the Proposed Rule, is that reconstructed sources are treated as “new” sources under existing regulations.⁴¹ Accordingly, EPA should clarify (e.g., in the preamble to a final rule on this power plant NSPS) that reconstructions will, per existing regulations, be treated as *new* sources.

As a policy matter, not regulating reconstructed sources could create a significant loophole whereby units could be largely re-built in place without installing emission controls. This would exacerbate decades of controversy over the “grandfathering” of coal-fired power plants from modern pollution controls.

Furthermore, the Proposed Rule provides no sound policy basis for excluding reconstructed units from regulation. First, EPA acknowledges that reconstructions are rare.

³⁸ 40 CFR 60.15(b).

³⁹ 77 Fed. Reg. 22,427.

⁴⁰ *Id.*

⁴¹ *See Id.* stating that reconstructed sources “are to be treated as *new* sources” and that an existing source, upon reconstruction, “becomes subject to the standard of performance for *new* sources” (emphasis added).

EPA finds that over “the lengthy history of the NSPS program” reconstructions “have been too few in number to allow us to develop a sufficiently robust base of knowledge to propose a standard of performance for reconstructions for GHGs at this time.”⁴² Moreover “EPA is not aware that any power plants are presently planning any project that could meet the requirements for a reconstruction.”⁴³

EPA should not create a legally dubious precedent by establishing an exception that may never apply and thus has little benefit. Furthermore, reconstructions are regulated under the NSPS regulations precisely because the extent of the component replacements is extraordinary. The act speaks for itself. If such extraordinary component replacements ever in fact occur, they should be regulated.

Moreover, EPA *does* have at least some information on the scope of power plant reconstructions. For instance, the Seventh Circuit in a leading case addressed a reconstruction. There, the Court noted that the reconstruction provision is aimed principally at discouraging “the perpetuation of a facility, instead of replacing it at the end of its useful life with a newly constructed affected facility.”⁴⁴

Finally, the Proposed Rule cites existing NSPS regulations whereby component replacement can constitute a reconstruction only if it is “technologically and economically feasible for the source to meet the applicable standards.”⁴⁵ However, in citing the existing regulatory language, EPA ignores what the existing regulations clearly spell out: that EPA performs a *case-by-case analysis* on how to address extensive component replacements that may constitute reconstructions, including any “economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.”⁴⁶ Thus, it is inappropriate for the Proposed Rule to assert that it is excluding reconstructed sources from regulation, as the existing regulations are clear: the NSPS would apply as if these are “new” sources, the implications of which is determined on a case-by-case basis given the facts that exist for a given facility at a specific point in the future. For instance this would require, for coal-fired power plants undergoing a reconstruction, an assessment of whether controls such as CCS could be installed.⁴⁷

⁴² 77 Fed. Reg. 22,428.

⁴³ *Id.*

⁴⁴ See *Wisconsin Electric Power Co. v. Reilly*, 893 F.2d 901, 913 (7th Cir. 1990) (citations omitted).

⁴⁵ 77 Fed. Reg. 22428, citing 40 CFR 60.15(b).

⁴⁶ 40 CFR 60.15(e)(4).

⁴⁷ EPA has discretion in its NSPS requirements, and since a case-by-case review would be required before a reconstruction could begin, EPA, after that review, would have the information available to determine precisely what a “technologically and economically feasible” standard for that facility would be. This

Given the extraordinary scale of component replacements at “reconstructed facilities,” EPA should *not* exclude such sources from regulation, and the final rule for this power plant NSPS should clarify that reconstructed sources are in fact regulated.

E. EPA should regulate existing units, while maintaining the exemption for low-emitting fossil plants.

EPA acknowledges that once it “promulgates standards for new sources under CAA section 111(b), the States, consistent with EPA regulatory requirements, must take action under CAA section 111(d) to establish requirements for ‘any existing source.’”⁴⁸

The Proposed Rule would only regulate new power plants. Regulating only new power plants could create an incentive to keep old plants running as long as possible so as to avoid installing modern pollution controls, contrary to Section 111’s statutory purpose of reducing emissions. While discretion is left to the states on regulating existing sources, that process cannot begin until EPA publishes emissions guidelines that (subject to certain exception) provide minimum requirements for emission standards.⁴⁹ In regulating existing units, ACSF suggests that EPA’s current approach of recognizing that inherently low-emitting NGCC units do not require additional controls makes sense. Furthermore, due to their comparatively low levels of operations as peaking units, the Proposed Rule’s exclusion of natural gas combustion turbines should be carried over into the regulation of existing sources.

III. Conclusion

By setting the first-ever GHG standards for fossil fuel-fired power plants, the Proposed Rule takes a significant step in regulating these emissions. ACSF supports key aspects of the Proposed Rule. In particular, ACSF supports EPA’s recognition that clean fuels such as natural gas can significantly lower power sector emissions. However, EPA’s approach to regulating power plant GHG emissions should be strengthened in several important respects.

In particular, EPA should not move forward with the proposed 30-year averaging scheme, as it raises enforceability problems, delays the Proposed Rule’s benefits, and increases

would allow EPA to carry out its requirements. *See, e.g.*, “[S]ection 111 most reasonably seems to require that EPA identify the emission levels that are ‘achievable’ with ‘adequately demonstrated technology.’ After EPA makes this determination, it must exercise its discretion to choose an achievable emission level which represents the best balance of economic, environmental, and energy considerations. It follows that to exercise this discretion EPA must examine the effects of technology on the grand scale in order to decide which level of control is best.” *Sierra Club v. Costle*, 657 F.2d 298, 330 (D.C. Cir. 1981).

⁴⁸ 77 Fed. Reg. 22,424, citing Section 111(d)(1).

⁴⁹ *See* 40 CFR 60.20–60.29.

the risk that mandated pollution controls for a particular new coal-fired unit may never be installed. Instead, EPA should adopt a shorter (e.g., 10-year) averaging period if the requisite pollution controls are not installed when a new unit commences operation. Furthermore, EPA should regulate reconstructed sources and also regulate the highest-emitting of the existing fleet of fossil generators. With adjustments to the Proposed Rule, EPA can make significant strides in moving our nation to a cleaner electric generating fleet.

Sincerely,

A handwritten signature in blue ink that reads "Gregory C. Staple". The signature is written in a cursive, flowing style.

Gregory C. Staple
CEO, American Clean Skies Foundation