EPA's Novel Interpretation of "Best System of Emission Reduction" for Existing Electric Generating Units Violates the Clean Air Act

by Allison D. Wood and Andrew D. Knudsen

Allison Wood is a partner and Andrew Knudsen is an associate in the Washington, D.C., office of Hunton & Williams LLP.

Summary

When designating the "best system of emission reduction" in its Clean Power Plan, EPA considered several factors far beyond the fencelines and control of the regulated power plants. The clear statutory language, context, and regulatory background demonstrate that such a "beyond-the-source" approach is not allowed under §111. To find otherwise would suggest that EPA can require drivers to stay home or to use public transportation in order to reduce motor vehicles' tailpipe emissions under the Clean Air Act. Although this conclusion may result in lower overall emission reductions, it is the outcome that the CAA requires.

I. Introduction

Imagine that the U.S. Environmental Protection Agency (EPA) proposes regulations under a section of the Clean Air Act (CAA)[1] authorizing the Agency to develop standards of performance for tailpipe emissions from motor vehicles that burn fossil fuels. One might expect that these regulations would require vehicles to be equipped with emission control equipment (such as catalytic converters) or operational features (such as on-board diagnostic computers) to limit each vehicle's tailpipe emissions per mile. But what if EPA went farther? Imagine that these regulations also attempted to reduce vehicle tailpipe emissions by requiring car owners to shift more of their travel to buses, or by providing subsidies to promote the sale of electric vehicles, or by encouraging individuals to reduce vehicle use altogether by working from home once per week. Can a "standard of performance" reasonably include measures like these?

To many, such broad requirements would seem entirely out of place. That is because although these types of measures might indirectly reduce tailpipe emissions from vehicles, they have no effect on the emissions performance of the individual vehicles on which this hypothetical provision focuses, and they are beyond the control of the vehicle manufacturer altogether. In order to require such measures, EPA would need authority to reach "beyond the source" to impose obligations on other entities.

That's not what a "standard of performance" program is about. Yet, this is exactly what EPA is proposing to do in its proposed emission guidelines[2] for existing electric generating units (EGUs). EPA's broad "beyond-the-source" approach is incompatible with the statute. Like the hypothetical motor vehicle provision above, CAA §111 authorizes EPA and states to promulgate standards of performance for new and existing sources within certain source categories. At its heart, this regulatory program is quite simple. It provides for the regulation of sources through standards that are based on what an individual source can do to reduce the source's rate of potential emissions. Efforts to require aggregate emission reductions by targeting entities outside the designated source category exceed the scope of this program; a "standard of performance" cannot ask another source to operate more (or other entities to reduce demand for a product) so that the source in the designated source category must curtail its operations or not "perform" at all.

Authors' Note: The authors are members of the firm's environmental practice group. They can be reached at awood@hunton.com or aknudsen@hunton.com, respectively.

1. Clean Air Act (CAA), 42 U.S.C. §§7401-7671q, ELR Stat. CAA §§101-618.
2. Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34830 (June 18, 2014).

Section 111(a)(1) requires that any standard of performance be based on "the best system of emission reduction" (BSER) that has been adequately demonstrated for the source category. EPA relies on a dramatic redefinition of the statutory term "system" to broaden the scope of this program "beyond the source" by claiming that it may base a standard of performance on *any* "set of things" that leads to reduced emissions from the source category overall, ranging from utilization limits at certain units to enforceable obligations for other entities that reduce utilization of some sources.[3] This interpretation is misguided. The plain language, the statutory context, and the regulatory history of §111 are all clear and unambiguous. A "system of emission reduction" must begin and end at the source itself.

II. The Statute

A. *Statutory Text*

On its face, §111 clearly does not authorize EPA or states to impose requirements that reach beyond individual sources in a regulated category. Instead, the statute provides only for standards that regulate the emissions performance of *individual* stationary sources. This narrow focus is evident simply from reading the titles used in these provisions: §111 is designated "[s]tandards of performance for new stationary sources," and §111(d) is titled "[s]tandards of performance for existing sources; remaining useful life of source." Likewise, the plain text of these provisions is clear that standards of performance apply only to sources in specific categories: new source performance standards (NSPS) under §111(b) apply only to "new sources within [a listed] category,"[4] while state standards under §111(d) apply to "any existing source . . . to which a standard of performance . . . would apply if such existing source were a new source."[5] In addition, §111(d) explicitly directs states and EPA to consider the "remaining useful life" of existing sources when applying any standard of performance, further demonstrating that this section focuses solely on what individual sources can do to improve their performance at reasonable cost rather than on what the entire source category (or other entities) can do collectively.[6]

The CAA also narrowly confines the stationary sources that may be regulated under §111 to any individual "building, structure, facility, or installation which emits or may emit any air pollutant."[7] The definition notably does not extend to combinations of these facilities or to other non-emitting entities. EPA has attempted in the past to treat multiple individual sources as a single system subject to regulation for the purposes of §111, only to be rebuked by the courts for violating the clear language of the statute.[8] The U.S. Court of Appeals for the District of Columbia (D.C.) Circuit has held that if EPA is concerned about the cost or need for flexibility in regulating a category of sources, the solution is to change the *standard*, not the entity to which the standard applies.[9]

Importantly, §111 also requires that any standard of performance be "achievable" by the individual sources to which it applies based on application of an "adequately demonstrated" system of emission reduction.[10] The achievability requirement is clearly inconsistent with a "beyond-the-source" approach. A standard cannot be "achievable" for a source if the source must rely on the conduct of some other entity that it does not control, or must not operate at all, in order to achieve the standard. The hypothetical motor vehicle standard described in the introduction provides a telling example. If a standard of performance for tailpipe emissions from new motor vehicles were to be based on the emission reductions that would result from encouraging people to work from home one day per week, how would the manufacturer of any motor vehicle achieve that standard? No change in the design or operation of the vehicle could achieve those reductions. How would the owners of existing vehicles adjust their emissions performance? A source does not "achieve" a level of required performance by "performing" less or ceasing to "perform" at all.

Other parts of §111 similarly contradict the broad "beyond-the-source" approach to defining a system of emission reduction. Section 111(h) authorizes EPA to promulgate a design, equipment, work practice, or operational standard in cases where "it is not feasible to prescribe or enforce a standard of performance," and defines exactly when the U.S. Congress considered it "not feasible" to establish a standard of performance.[11] One such situation is where the regulated pollutant "cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant."[12] By tying a "standard of performance" to the level of emissions from a regulated source that may be emitted through a "conveyance" at that source, Congress could not have made more clear that this program is exclusively focused on individual sources.

3. *Id.* at 34885-86.
4. 42 U.S.C. §7411(b)(1)(B).
5. *Id.* §7411(d)(1).
6. *Id.* §7411(d)(1)(B), (d)(2).
7. *Id.* §7411(a)(3).
8. *See* ASARCO, Inc. v. EPA, 578 F.2d 319, 8 ELR 20277 (D.C. Cir. 1978).
9. *Id.* at 329.
10. 42 U.S.C. §7411(a)(1).
11. *Id.* §7411(h)(1).
12. *Id.* §7411(h)(2)(A).

B. Statutory Context

Further, nothing in the remainder of the CAA even hints that EPA has *any* authority under §111 to impose beyond-the-source emission reduction measures. Other provisions of the Act draw a sharp contrast between source-focused regulatory programs and programs that reduce aggregate emissions.

The CAA's other provisions establishing emission standards for new and existing sources all focus solely on achieving reductions in the rate of emissions at individual sources. Emission standards for hazardous air pollutants must be based on the maximum achievable control technology and reflect the application of "measures, processes, methods, systems or techniques" directly to individual sources.[13] Standards for visibility-impairing pollutants must reflect "the best available retrofit technology . . . for controlling emissions from [each eligible] source," considering the costs, existing control technology, and remaining useful life for that source.[14] And under the CAA's program for prevention of significant deterioration, new and modified sources must implement the "best available control technology" (BACT), which the permitting authority must identify on a case-by-case basis for each source and which must reflect "application of production processes and available methods, systems, and techniques" at the source.[15] None of these programs allows EPA to set an emission standard based on capping or restricting a source's operations.

The BACT program is particularly relevant because Congress explicitly tied these emission standards to §111. Standards of performance under §111 provide a regulatory floor for BACT standards.[16] But if a standard of performance relies on a "system of emission reduction" that goes beyond the source itself, it cannot meaningfully inform a BACT standard for individual sources in that category.

In contrast, in the few regulatory programs where Congress did authorize broad emission control measures for the purpose of meeting aggregate emission reduction goals, it spoke clearly and precisely. When Congress took action in the 1990 Clean Air Act Amendments to cap acid rain-forming emissions and to establish a program for emissions allowances and trading, it added an entirely new title to the Act spelling out the requirements and implementation procedures for that program in great detail.[17] Unlike the portion of the Act in which §111 is found, Congress' statement of purpose in Title IV establishes clear goals for nationwide "reductions in annual emissions" and explicitly states its desire to "encourage energy conservation, use of renewable and clean alternative technologies, and pollution prevention as a long-range strategy, consistent with the provisions of this subchapter, for reducing air pollution."[18] Congress also gave EPA specific instructions on how to credit sources for compliance with emission requirements based on avoided emissions from renewable energy and energy conservation.[19] The exhaustive provisions in Title IV prove that when Congress intends to establish a program requiring aggregate emission reductions that reaches beyond measures implemented at individual sources, it does not hide such authority in general terms like "system of emission reduction."

III. Regulatory History

Even if the statutory language left any doubt, the Agency's long and consistent history of implementing §111 at the source would give lie to today's novel attempts to extend that section beyond the source. In fact, in the 44-year history of the CAA, EPA has limited the scope of §111 to the emission rate improvements at the regulated source in *every rulemaking it has undertaken*.

First, EPA's 1975 Subpart B regulations—which establish a procedural framework for states to adopt standards of performance for existing sources under §111(d)—share §111's exclusive focus on standards that are achievable by individual sources. Subpart B directs EPA to publish a "guideline document containing information pertinent to control of the designated pollutant [from] *designated facilities* [i.e., existing sources subject to regulation under §111(d)]."[20] Echoing the statutory text, emission guidelines under Subpart B must "reflect[ ] the application of the best system of emission reduction (considering the cost of such reduction) that has been adequately demonstrated *for designated facilities*."[21] Acknowledging §111's statutory command to consider the "remaining useful life" of regulated existing sources, Subpart B also notes that states may tailor standards of performance for individual designated facilities to account for "unreasonable cost of control resulting from plant age, location, or basic process design," "physical impossibility of installing necessary control equipment," or "other factors specific to the facility (or class of facilities) that make application of a less stringent standard or final compliance time significantly more reasonable."[22] This discretion reflects Subpart B's focus on what emission rate improvements individual existing sources can achieve themselves.

Subpart B also specifies that compliance with any standards of performance for existing sources will be shown through a series of "increments of progress," which are "steps to achieve compliance which must be taken by an owner or operator of a designated facility."[23] These increments of progress include awarding contracts, initiating on-site construction or installation, and completing on-site construction or installation of emission control equip-

13. *Id.* §7412(d)(2) (listing acceptable measures).
14. *Id.* §7491(b)(2)(A).
15. *Id.* §§7475(a)(4), 7479(3).
16. *Id.* §7479(3).
17. *See id.* §7651-7651o.
18. *Id.* §7651(b).
19. *Id.* §7651c(f).
20. 40 C.F.R. §60.22(a) (emphasis added).
21. *Id.* §60.22(b)(5) (emphasis added).
22. *Id.* §60.24(f).
23. *Id.* §60.21(h).

ment or process changes.[24] Thus, Subpart B makes clear that compliance with standards of performance is achieved through on-site measures taken by regulated sources.

Second, out of the nearly 100 NSPS and emission guidelines EPA has promulgated and subsequently revised since 1970, *not one* has included beyond-the-source measures as part of a "system of emission reduction." For example, when the Agency promulgated and later revised NSPS for kraft pulp mills, it never considered basing the standard of performance on measures that indirectly reduce those sources' operations by reducing demand for paper, such as promoting double-sided printing or encouraging businesses to provide paperless billing for customers.[25] EPA's source-focused approach has not changed from 1970 to the present. In a June 30, 2014, NSPS rulemaking, EPA reaffirmed that standards of performance "apply to sources" and must be "based on the BSER *achievable at that source*."[26]

Nor has EPA ever taken a beyond-the-source approach in emission guidelines for existing sources. Since 1970, EPA has only published valid emission guidelines under §111(d) for five source categories, and in all five of these rulemakings, the emission guidelines were based on the application of pollution control technology or other process controls at individual sources.[27] Even EPA's short-lived Clean Air Mercury Rule[28] under §111(d), did not adopt a beyond-the-source approach to establishing standards of performance. Although that rule did authorize an emissions trading program as a tool for *compliance* with standards of performance, the "system of emission reduction" that was used to set the emission guidelines themselves was limited to pollution control technology that could be installed at individual sources.[29]

IV. Conclusion

In light of this statutory language, context, and regulatory background, a beyond-the-source approach clearly conflicts with CAA §111. Just as the Act does not authorize EPA to require drivers to stay home or to use public transportation in order to reduce motor vehicles' tailpipe emissions, the Agency cannot require stationary source owners to operate their sources less or to rely on other measures outside of their control as part of a standard of performance. In the context of existing EGUs, this means that any final carbon dioxide emission guidelines that EPA ultimately promulgates may be based only on measures that EGU owners may incorporate into the design or operation of their EGUs themselves, such as improvements in heat-transfer efficiency. Although this may result in lower overall emission reductions than a beyond-the-source approach, it is the outcome that the CAA requires. As the U.S. Supreme Court recently held in *Utility Air Regulatory Group v. EPA*, striking down a major component of EPA's greenhouse gas permitting program, "[a]n agency has no power to 'tailor' legislation to bureaucratic policy goals by rewriting unambiguous statutory terms."[30] Because §111 focuses solely on standards that are achievable by individual sources, EPA's standards of performance must do so as well.

24. *Id.* §60.21(h)(1)-(5).
25. *See* 43 Fed. Reg. 7572 (Feb. 23, 1978); 79 Fed. Reg. 18952 (Apr. 4, 2014).
26. 79 Fed. Reg. 36880, 36885 (June 30, 2014) (emphasis added).
27. *See* 41 Fed. Reg. 19585 (May 12, 1976) (guidelines for phosphate fertilizer plants based on "spray cross-flow packed scrubbers"); 41 Fed. Reg. 48706 (Nov. 4, 1976) (guidelines for sulfuric acid production units based on "fiber mist eliminators"); 43 Fed. Reg. 7597 (Feb. 23, 1978) (guidelines for kraft pulp mills based on various process controls and two-stage black liquor oxidation system); 45 Fed. Reg. 26294 (Apr. 17, 1980) (guidelines for primary aluminum plants based on "effective collection of emissions followed by efficient fluoride removal by dry scrubbers or by wet scrubbers"); 61 Fed. Reg. 9905, 9907 (Mar. 12, 1996) (guidelines for municipal solid waste landfills based on "(1) a well-designed and well-operated gas collection system and (2) a control device capable of reducing NMOC [nonmethane organic compounds] in the collected gas by 98 weight-percent").
28. 70 Fed. Reg. 28606 (May 18, 2005).
29. *Id.* at 28617-20, 28621 (final guideline was "based on the level of [mercury (Hg)] emissions reductions that will be achievable by the combined use of co-benefit (CAIR [Clean Air Interstate Rule]) and Hg-specific controls").
30. Utility Air Reg. Grp. v. EPA, 134 S. Ct. 2427, 44 ELR 20048 (2014).