



April 15, 2025

Via Regulations.gov

Mr. John Ashley
U.S. Environmental Protection Agency
EPA Docket Center
Mail Code 28221T
1200 Pennsylvania Avenue NW
Washington, DC 20460

**Re: U.S. Chamber of Commerce Comments on EPA's Proposed Rule
"Review of New Source Performance Standards for Stationary
Combustion Turbines and Stationary Gas Turbines" – Docket ID No.
EPA-HQ-OAR-2024-0419**

Dear Mr. Ashley:

The U.S. Chamber of Commerce is pleased to submit the following comments on the proposed rule entitled "Review of New Source Performance Standards for Stationary Combustion Turbines and Stationary Gas Turbines," which was published at 89 Fed. Reg. 101306 (Dec. 13, 2024) ("Proposed Rule").¹

The U.S. Chamber of Commerce is the world's largest business organization. Our members range from the small businesses and chambers of commerce across the country that support their communities, to the leading industry associations and global corporations that innovate and solve the world's challenges, to the emerging and fast-growing industries that are shaping the future. For people across the businesses we represent, the U.S. Chamber of Commerce is a trusted advocate, partner, and network, helping them improve society and people's lives. Members of the U.S. Chamber of Commerce own or operate numerous existing combustion turbines that stand to be affected by this rulemaking (e.g., by way of the expansive and unlawful reconstruction provisions, addressed in detail below). Chamber members also inevitably will install new combustion turbines that would be subject to the proposed new emissions standards. Moreover, Chamber members downstream of such turbines will be impacted by the increased costs that are likely to be incurred to

¹ The comment period was reopened and a new deadline of April 15, 2025, was set in a notice published on March 25, 2025. 90 Fed. Reg. 13576 (Mar. 25, 2025).

achieve compliance with this rulemaking. Thus, the U.S. Chamber of Commerce and its members have both direct and indirect interests in this rulemaking.

We write to highlight concerns with three aspects of the Proposed Rule. First, the proposals to redefine what constitutes a new source and a reconstruction under Subpart KKKKa (which would entail assessing just the combustion turbine and not all of the related and ancillary equipment constituting the affected facility) are inconsistent with the statutory definitions of “new source” and “modification” and, thus, are unlawful. More fundamentally, EPA is not authorized under CAA § 111 to determine applicability using a reconstruction test. So, the reconstruction provision should be rescinded altogether.

Second, if EPA does adopt a reconstruction provision in Subpart KKKKa, the final rule should provide that the emissions standards proposed to apply to modifications should apply to reconstructed affected facilities rather than the standards for new sources.

Third, the Proposed Rule is grounded in incomplete and incorrect cost and technical feasibility analyses. EPA has consistently overestimated NO_x control device effectiveness (especially for reconstructed units) and significantly underestimated the costs of installing and operating the required emissions controls. These errors must be corrected before the final rule is issued.

I. The proposed new source and reconstruction applicability provisions would unreasonably and unlawfully expand the applicability of the Proposed Rule to countless existing sources.

The existing Subpart KKKK applies to specified “stationary combustion turbines,”² which are defined to include “all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), heat recovery system, and any ancillary components and sub-components comprising any simple cycle stationary combustion turbine, any regenerative/recuperative cycle stationary combustion turbine, any combined cycle combustion turbine, and any combined heat and power combustion turbine based system.”³ Thus, where applicable, the “affected facility” includes the combustion turbine and any related duct burners and heat recovery equipment.

² 40 C.F.R. § 60.4305(a).

³ *Id.* at § 60.4420.

EPA observes in the Proposed Rule that, under Subpart KKKK, “the replacement of only the combustion turbine portion of a combined cycle or [combined heat and power (“CHP”)] facility may not constitute a new affected facility.”⁴ Similarly, “the cost to replace only the combustion turbine engine portion at an existing combined cycle or CHP facility may not constitute most of the costs compared to the replacement of the combustion turbine engine portion and the HRSG portion.”⁵ In other words, replacement of the combustion turbine may not exceed the 50% cost threshold typically used to define the “reconstruction” of an existing affected facility that might trigger applicability of the NSPS.⁶

EPA claims that “[w]hen the definition of an affected facility was expanded in subpart KKKK [to include duct burners and heat recovery equipment], it was not the intent of the EPA to change the determination of whether an existing combustion turbine is “new” or “reconstructed.”⁷ Consequently, the Agency “is proposing that it is appropriate that owners or operators of combined cycle and CHP facilities that entirely replace or undertake major capital investments in the combustion turbine engine portion of the facility invest in emissions control equipment as well.”⁸

Specifically, EPA proposes to retain the current Subpart KKKK definition of “affected facility,” but also proposes to “clarify that the test for determining if an affected facility is a new source would be based on whether the combustion turbine portion of the affected facility is entirely replaced.”⁹ In addition, EPA proposes that “[t]he reconstruction applicability determination would be based on whether the fixed capital costs of the replacement of components of the combustion turbine engine portion exceed 50 percent of the fixed capital costs that would be required to install only a comparable new combustion turbine engine portion of the affected facility.”

EPA’s proposed new approaches to defining new and reconstructed sources are unlawful and should not be finalized. To begin, EPA’s proposal that a replacement combustion turbine at a combined cycle or CHP facility would constitute a “new source” is facially at odds with the statutory definition of “new source” and, thus, unsupportable. “New source” is defined to mean “any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance

⁴ 89 Fed. Reg. at 101314.

⁵ *Id.*

⁶ See 40 C.F.R. § 60.15(a) and (b).

⁷ 89 Fed. Reg. at 101314.

⁸ *Id.*

⁹ *Id.*

under this section which will be applicable to such source.”¹⁰ The existing Subpart KKKK emissions standards and the proposed Subpart KKKKa emissions standards for both NO_x and SO₂ apply to the entire affected facility – including duct burners and heat recovery equipment at combined cycle and CHP facilities.¹¹ Thus, the “stationary source” used for purposes of defining new sources under Subparts KKKK and KKKKa must include the combustion turbine and (where applicable) duct burners and heat recovery equipment because that is the collection of equipment for which the rule “prescribe[es] a standard of performance under this section.”

EPA’s proposed approach to defining “new” sources also cannot be reconciled with the statutory and regulatory definitions of “modification,” which provide that any physical change or change in the method of operation of an affected facility triggers an applicable NSPS if such change results in an emissions increase.¹² For combined cycle and CHP facilities, replacement of the combustion turbine facially constitutes a “physical change” to the existing affected facility because indisputably such a project does not entail installation of an entirely new affected facility. Accordingly, replacement of a combustion turbine at a combined cycle or CHP facility should be analyzed as a potential modification and not as construction of a new affected facility. EPA does not (and cannot) explain how a potential modification somehow can be transformed into construction of a new source.

The reconstruction proposal has the same legal flaws as described above for the proposed new source provision because reconstruction is just another way to define a new source. Similar to the new source proposal, the reconstruction proposal is irreconcilably at odds with the affected facility definition that EPA established for purposes of developing and applying the SO₂ and NO_x emissions standards. It also cannot be reconciled with the statutory and regulatory definitions of “modification” because the actions that might constitute a reconstruction are physical and operational changes that properly should be analyzed as potential modifications.

But more fundamentally, EPA has no CAA authority to determine NSPS applicability using a reconstruction test. CAA § 111 prescribes just two mechanisms for triggering applicability – construction of a new source and modification of an existing source. CAA § 111 does not use the word “reconstruction” and cannot reasonably be construed to authorize EPA to establish a reconstruction applicability mechanism out of whole cloth. When the regulatory reconstruction provision was established in 1975, EPA explained that the intent of that provision “is to prevent

¹⁰ CAA § 111(a)(2).

¹¹ See 70 Fed. Reg. 8314, 8321-1 (Feb. 18, 2005); 89 Fed. Reg. at 101314.

¹² CAA § 111(a)(4); 40 C.F.R. § 60.14.

circumvention of the law.”¹³ According to EPA, “the purpose of the reconstruction provision is to recognize that replacement of many of the components of a facility can be substantially equivalent to totally replacing it at the end of its useful life with a newly constructed affected facility.”¹⁴ While that explanation may be sensible from a policy perspective, it wholly lacks any explanation of how CAA § 111 or any other provision of the CAA establishes authority for a CAA § 111 reconstruction applicability trigger. Notably, reconstruction is specified under the CAA § 112 air toxics program as a new source applicability trigger.¹⁵ The lack of a similar express provision in CAA § 111 is strong evidence that reconstruction is not a permissible applicability trigger under that section.

Lastly, for both the new source and reconstruction proposals, EPA provides no analysis explaining how they are justified under the law. Consequently, EPA has failed to satisfy its obligation to explain “the major legal interpretations ... underlying the proposed rule.”¹⁶ In addition, that lack of explanation prevents commenters from fully understanding these key aspects of the Proposed Rule and, thus, deprives commenters of the opportunity to submit informed comments. For these reasons, before finalizing these provisions, EPA is obligated to repropose them with the needed additional explanation and analysis.

II. The NO_x emissions standards for reconstructed sources should be the same as the NO_x emissions standards for modified affected facilities.

The proposed NO_x emissions standards for reconstructed affected facilities are the same as the proposed NO_x emissions standards for new sources.¹⁷ In contrast, except for the two subcategories covering combustion turbines with a base load rating of greater than 850 mmBtu/h and the subcategory covering offshore combustion turbines, the proposed NO_x emissions standards for modified sources are less stringent than the corresponding standards for new and reconstructed sources.

For reconstructed sources, EPA explains that “sources that undertake sufficiently large capital investments as to effectively be “new” sources are required to invest in emissions controls as well, and do not avoid performance standards that

¹³ 40 Fed. Reg. 58416, 58417 (Dec. 16, 1975).

¹⁴ *Id.*

¹⁵ CAA § 112(a)(4) (“The term “new source” means a stationary source the construction or reconstruction of which is commenced after the Administrator first proposes regulations under this section establishing an emission standard applicable to such source.”).

¹⁶ CAA § 307(d)(3)(C).

¹⁷ 89 Fed. Reg. at 101323.

would otherwise apply to new sources.”¹⁸ “For modified small and medium combustion turbines with base load ratings of less than or equal to 850 MMBtu/h of heat input” EPA asserts that it “is proposing in new subpart KKKKa that the BSER is the use of combustion controls” because “[a] difference relative to the BSER for new and reconstructed combustion turbines compared to the BSER for certain modified combustion turbines, is that due to potentially high retrofit costs, the EPA is proposing that SCR does not qualify as the BSER for modified medium base load combustion turbines.”¹⁹

As explained in Section I, above, EPA does not have authority to define and regulate “reconstructed” affected facilities and, thus, should rescind all reconstruction provisions from Subpart KKKKa and ultimately the program as a whole. But if the Agency decides to retain reconstruction provisions in Subpart KKKKa, the final NO_x emissions standards for reconstructed sources should be set at the same level as those for modified sources – which generally would not require post-combustion controls to be used and should prevent unnecessarily costly and, in some cases, technically infeasible upgrades to existing combustion controls.

Such an approach is warranted for several reasons. First, there is no reason to believe that emissions control retrofit costs for reconstructed sources would be materially different than the costs that would be incurred by modified affected facilities. Both modifications and reconstructions involve physical changes to existing combustion turbines. The only differences between modifications and reconstructions are legal distinctions that have no bearing on project costs. So, EPA’s conclusion that “potentially high retrofit costs” warrant different treatment for modified sources applies equally to reconstructed sources.

Second, imposing new source emissions standards on reconstructed units creates a perverse incentive for some source owner/operators to decide to continue operating combustion turbines with relatively higher emissions to avoid the costs and difficulties of installing inordinately stringent emissions controls that are far better suited for newly built combustion turbines. Thus, in practice, imposing new source standards on reconstructed combustion turbines could result in greater aggregate emissions than would be accomplished by standards that are properly tailored for reconstructed sources.

Lastly, given the wide range of sizes, uses, utilization, and technologies among the fleet of existing combustion turbines, retrofitting existing units with modern NO_x

¹⁸ *Id.* at 101314.

¹⁹ *Id.* at 101338.

emissions control technologies (such as dry low NO_x burners or selective catalytic reduction (“SCR”) systems) would be technically challenging and, in some cases, infeasible. Moreover, the cost of incorporating state-of-the-art emissions control measures into existing combustion turbines in most cases would be substantial and, in some cases, would exceed the cost of incorporating such controls in newly built units. Beyond a certain point, such problems likely will cause owners/operators to retire existing units prior to the end of their otherwise useful life – resulting in economic inefficiencies for the affected company and for the Nation as a whole.

In sum, should EPA decide to include reconstruction provisions in the final rule, it should regulate reconstructed combustion turbines under the standards for modified sources rather than those for new sources.

III. EPA’s control effectiveness, cost, and cost effectiveness analyses are flawed.

Chamber members have reported that key analyses and assumptions underlying the Proposed Rule are flawed and must be corrected prior to issuance of the final rule. In particular, members report that EPA has significantly overestimated the effectiveness of combustion controls and SCR post-combustion emissions control systems in reducing NO_x emissions. According to Chamber members, EPA has not provided sufficient support for its proposed emission limits for either combustion controls or SCR – particularly for existing sources that are more likely to become subject to the rule by being reconstructed. Limits of 5-9 ppm with combustion controls and 2-3 ppm with SCR are overly optimistic.

Indeed, consistent with those general observations, the Electric Power Research Institute (“EPRI”) submitted comments on the Proposed Rule in which it demonstrated that “[s]ome OEMs do not offer dry combustion controls achieving 15 ppm NO_x on medium-size gas turbines as well as 9 ppm NO_x on large-size gas turbines, thus dry combustion controls achieving 15 ppm or 9 ppm NO_x is not technically feasible for all gas turbine models at competitive level of market investment.”²⁰

Similarly, with regard to retrofitting SCR systems on existing simple cycle combustion turbines, EPRI notes that “[o]ne of the primary challenges in retrofitting a

²⁰ Comments of the Electric Power Research Institute on Environmental Protection Agency [EPA-HQ-OAR-2014-0128; FRL-5788-02-OAR] Review of New Source Performance Standards (NSPS) for Stationary Combustion Turbines and Stationary Gas Turbines – Proposed Rule (March 13, 2025), Docket No. EPA-HQ-OAR-2024-0419-0059 at 4 (cleaned up).

SCR system to a simple cycle gas turbine is the constrained space within the exhaust duct, especially near the turbine exit where the SCR must be installed.”²¹ EPRI asserts that “[t]his may result in complex design considerations and potential installation difficulties due to the mixing distances required for ammonia [i]njection uniformity, SCR catalyst, and other tempering air and mixing equipment.”²² Consequently, “[a]dditional information is necessary to estimate and apply retrofit factors for specific applications,” and “data is needed to quantify the impact of high (>750 °F) exhaust temperatures on SCR catalyst deactivation, and long-term catalyst replacement cost.”²³ Thus, record evidence shows that EPA has overestimated the effectiveness of the NO_x emissions control measures used as the bases for the Agency’s “best system of emissions control” analyses.

Chamber members also report that EPA consistently has underestimated the cost of installing SCR and combustion controls – especially for existing sources that must be retrofitted. As for SCR, EPRI reports in its comments that the incremental cost effectiveness of installing SCR to achieve the proposed NO_x emissions limit for medium-size utility combustion turbines is \$24,376 per ton removed – which far exceeds the levels that EPA traditionally considers to be cost effective for NO_x.²⁴ As for combustion controls, a Chamber member recently evaluated an Alstom CT with a silo combustor (EV-Burner) that had a NO_x guarantee of 25 ppm. In order to reach 15 ppm NO_x, that unit would require a combustor replacement at an estimated \$10M and 10% or greater loss in capacity. That contrasts with EPA’s assertions in the Proposed Rule that “combustion controls consistent with the existing standards in subpart KKKK represent little cost to the regulated community.”²⁵

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²¹ *Id.* at 14.

²² *Id.*

²³ *Id.*

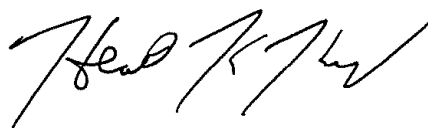
²⁴ *Id.* at 14.

²⁵ 89 Fed. Reg. at 101333.

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Thank you for the opportunity to submit these comments. Please feel free to contact me at hknakmuhs@uschamber.com if you have questions or need additional information. We thank you for your consideration of these comments and further extend our offer to assist EPA as it moves forward with this rulemaking effort.

Sincerely,

A handwritten signature in black ink, appearing to read "Heath K. Knakmuhs", with a stylized flourish at the end.

Heath K. Knakmuhs
Vice President and Policy Counsel
Global Energy Institute
U.S. Chamber of Commerce