Climate Protection & Restoration Initiative
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August 7, 2025

Administrator Lee Zeldin
Environmental Protection Agency
Docket ID No. EPA–HQ–OAR–2025–0124

Comments of Donn J. Viviani, James E. Hansen, John M. Fitzgerald, John Birks, Lise Van Susteren, Richard Heede, Eelco Rohling, Mike Schauer, Stefanie Herrington, Nelson Bonner, and Climate Protection and Restoration Initiative

Mr. Administrator,

This comment is on behalf of CPR Initiative and ten members of its Boards of Directors and Advisors. It pertains to your proposed *Repeal of Greenhouse Gas Emissions Standards for Fossil Fuel-Fired Electric Generating Unit,* 90 FR 25752-81 (June 17, 2025).

Under it, you propose "to repeal all greenhouse gas (GHG) emissions standards for fossil fuel-fired power plants" or, in the alternative, "to repeal [current] emission guidelines for existing fossil fuel-fired steam generating units, the carbon capture and sequestration/storage (CCS)-based standards for coalfired steam generating units undertaking a large modification, and the CCS-based standards for new base load stationary combustion turbines."
90 FR 25752 (June 17, 2025).

In brief, the main repeal proposal is based on two fundamental misunderstandings:

(a) that a "small and decreasing part of global emissions" cannot contribute significantly to dangerous air pollution, and

(b) that a pell-mell US drive to achieve "energy dominance and independence secured by using fossil fuels to generate power" will not induce higher-than-otherwise foreign emissions that will further endanger public health and welfare.

In both direct and foreseeable ways, a repeal of all GHG standards for fossil fuel-fired power plants will harm the United States, as well as the global climate. In addition, as to your more limited alternative proposal -- to repeal select guidelines and standards – this proposed action is also unwarranted because it too would function to increase emissions from the sector. If any adjustment to those requirements were required you should consider their modification, not their mere repeal.

We further comment on these and other aspects of your proposal below.

C-1, 6 and 7: Whether EPA's newly proposed interpretation of CAA section 111 is warranted on the asserted ground that the provision "require[s], or at least authorize[s] EPA to require, an Administrator's determination of significant contribution for the air pollutant under consideration." 90 FR at 25777.

The answer must be: No to both.

As an initial matter, we consider your suggested fallback formulation, that is, that the statute might "at least authorize EPA to require an Administrator's determination of significant contribution for the air pollutant under consideration."

The question whether you now may require a "contribute significantly" finding from a prior or future EPA, as a condition precedent to EPA's issuance of power plant GHG emissions standards or guidelines, must be resolved by Congressional intent. That is, it is for Congress, not EPA, to impose any such prerequisite per-pollutant significant contribution finding, and Congress did not do so here.

Second, as to whether §111 *requires* EPA directly "to determine that emissions of an air pollutant from an existing source category significantly contribute to dangerous air pollution before imposing standards of performance for that air pollutant on the relevant source,"[1] our answer also must be No.

Your Agency's fundamental mission is to "protect the quality of the nation's air resources so as to promote the public health and welfare"[2] and, towards that end, CAA §111 specifies requirements for EPA's development and imposition of performance standards on stationary sources. Under that statute, your Agency is required to publish "a list of categories of stationary sources [that] cause[], or contribute[] significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." CAA §111(b)(1)(A). Subsequent to such listing, your Agency develops and publish Federal standards of performance to control pollution from those listed source categories. CAA §111(b)(1)(B).[3]

Accordingly, CAA section 111 does not authorize you to withhold issuance of stationary source performance standards and guidelines on the asserted ground that one or more of its specific pollutants have not themselves been the subject of a significant contribution finding.

[1] 90 FR at 25763

[2] CAA 101(b)(1).

[3] The standards of performance themselves are to ensure that such stationary sources achieve the degree of emissions limitation that is achievable by their application of the best system of emission reduction. CAA §111(a)(1).] The Agency also is required to "prescribe regulations" establishing a similar procedure for states, under specified circumstances, to establish, in state plans, such standards of performance for existing stationary sources. CAA §111(d).

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C-2 Whether CAA section 111 requires a significant contribution finding for the fossil fuel-fired EGU source category first created in the 2015 NSPS, and for the 2024 Carbon Pollution Standard (CPS)

On the same basis, our answer here also must be No. As your Agency wrote in 2015:

"In 1971 EPA initially included fossil fuel-fired EGUs (which includes natural gas, petroleum and coal) that use steam-generating boilers in a category that it listed under CAA section 111(b)(1)(A), and promulgated the first set of standards of performance for sources in that category, which it codified in subpart D. In 1977, the EPA initially included fossil fuel-fired combustion turbines in a category that the EPA listed under CAA section 111(b)(1)(A), and the EPA promulgated standards of performance for that source category in 1979."
80 FR 64510, 64528 (Oct. 23, 2015).

In the Clean Power Plan, then, your Agency merely combined those two previously listed categories – steam generators and combustion turbines – "for purposes of promulgating standards of performance for GHG emissions," pursuant to CAA §111(b), as well as for purposes of establishing guidelines for existing sources, pursuant to CAA §111(d). *Id*. at 64531.

As your Agency reasonably determined, at the time, "Because these two source categories [were] pre-existing listed source categories and the EPA [did] not subject[] any additional sources in the categories to CAA regulation for the first time, the combination of these two categories [was not] a new source category subject to the listing requirements of CAA section 111(b)(1)(A)." *Id*. at 64532.

Nothing relevant has changed; §111 still requires no "significant contribution finding for the fossil fuel-fired EGU source category first created in the 2015 NSPS." Your Agency's combination of already-listed sources does not trigger a new act of listing. Moreover, even if it had been required to undertake a "contributes significantly" analysis prior to or coincident to that grouping, EPA "found, in the alternative, that this category of sources contributes significantly to air pollution which may be reasonably anticipated to endanger public health and welfare," *Id*. at 64532, in part on the basis that "[f]ossil fuel-fired EGUs are 'by far the largest emitters'' of greenhouse gases among stationary sources in the U.S." *Id*. at 64522.

Further, as EPA observed just 15 months ago, the DC Circuit court held that "even if the EPA were required to determine that CO2 from fossil fuel-fired EGUs contributes significantly to dangerous air pollution. . .the determination in the alternative that the EPA made in the 2015 NSPS was not arbitrary and capricious . . . This aspect of the decision remains good law." 89 FR 39798, 39825 (May 9, 2024) (citing to *American Lung Ass'n v. EPA*, 985 F.3d 977 (D.C. Cir. 2021).

C-5 Whether it is appropriate to regulate emissions of an air pollutant from a source category only if those emissions contribute significantly to dangerous air pollution

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This question is fraught in light of your profoundly circular discussion of "Significant Contribution."

In particular, in your proposed repeal you state that a source category's contribution to dangerous air pollution is not significant "if regulating emissions would not be useful, taking into account, *inter alia*, the impacts on, and the Administration's policies concerning the source category." 90 FR at 25765. The circularity arises from your shift of concern, from dangerous air pollution to endangered source category – when, indeed, it is that very source category that is producing the danger.

The question is also poorly formulated in the context of this proposed repeal, because it avoids what is at issue in CAA §111. Source categories are first listed on the basis of one or more pollutants, and thereafter your Agency uses its best judgment to take action against additional pollutants that those listed source categories emit, including, as in 2015 and 2024, performance standards and guideline to reduce fossil fuel-fired power plant GHG emissions.

The specific problem with your formulation, then, is that "emissions of an air pollutant" may have interactive effects with co-pollutants, other pollutants, ambient temperature, other aspects of climate, and with environmental factors. The impact of the sum may be greater than that of its parts.

Accordingly, it is *decidedly not appropriate* to constrain regulation of emissions of an air pollutant from a source category *only* if emissions of that specific pollutant directly contribute to dangerous air pollution. Interactive and compounding effects matter.

C-8 Whether EPA erred in determining that it was not required to make a significant contribution finding in the 2015 NSPS or in not revisiting the issue in the CPS, and whether or not it would be appropriate to exercise its discretion here by requiring such a finding for GHG emissions from the fossil fuel-fired power plant source category

In light of the clear text of CAA §111, EPA was correct in determining that it was not required to make a significant contribution finding in the 2015 NSPS **and** in not revisiting the issue in the 2024 CPS.

Furthermore, in light of the additional danger to the nation that your repeal of all GHG emissions restrictions on power plants would impose, it would not be appropriate for EPA to presume newfound discretion here to require such a finding for GHG restrictions of the sector and, on that basis, repeal the existing restrictions on GHG emissions from the fossil fuel-fired power plant sector.

C-9 Whether there was a change in interpretation from the 2015 NSPS which allowed the EPA to regulate additional pollutants without ever having made a significant contribution finding

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for that pollutant, including any specific reliance interests relevant to the interpretation taken in the 2015 NSPS, as carried over into the CPS, and the relative strength of the rationale for these respective interpretations

Your formulation of this request for comment is simply confused. The 2015 NSPS and the 2024 CPS are based on a consistent (and correct) interpretation of §111. EPA first lists one or other category of stationary source on the basis that "it causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare," and thereafter, without additional "contributes significantly" findings, sets performance standards and guidelines to limits emissions of those pollutants it rationally deems need restricting from the source.

C-10 and 11 Whether and how the *Loper Bright Enterprises* and *West Virginia* decisions justify the repeal

Other commenters no doubt will focus on the tests raised by these recent decisions. We Comment here to stress only that the limited scope of the limitations imposed by the 2024 Carbon Pollution Standards are specifically written to stay well within the four corners of §111 when that statute is plainly read.

C-13 Whether the proposed determination -- that GHG emissions from the EGU source category do not ''contribute significantly'' to dangerous air pollution -- is warranted

It is not warranted, in our view.

Indeed, GHG emissions from the fossil fuel-fired US power sector ''contribute significantly'' to dangerous air pollution under any reasonable definition, including any reasonable reading of CAA section 111(b)(1)(A).

As we explained above, CAA §111 does not require pollutant-specific findings that emissions from an already-listed stationary source category contribute significantly to dangerous air pollution, and EPA retains no discretion to deem as invalid any stationary-source performance standard or guideline simply because its issuance was not preceded or accompanied by such pollutant-specific significant contribution findings. Nonetheless we address the issue because you have raised it.

Your proposed "no significant contribution" determination appears to be based on several factors, including (a) that "[t]he share of global GHG emissions contributed by the US power sector has "fallen steadily" from 5.5 percent in 2005 to 4.6 percent in 2010, to 3.7 percent in 2015, to 3 percent in 2022, and (b) your assertion that the "3 percent contribution figure . . . suggests that the risks to public health and welfare attributed to anthropogenic climate change

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would not be meaningfully different even if the fossil fuel-fired EGU source category were to cease all GHG emissions."

Taking up the latter point first, there is no such suggestion. An annual contribution of 3 percent of emissions to any baseline, whether global or national,[4] is hardly insignificant – particularly in context where contributions from all sources already have pressed the atmospheric concentration of GHGs well into the danger zone.[5]

Moreover, because it the accumulation of emissions that matters, the contribution over a two-decade period from the US power sector is not 3%, but rather 5%, according to recent data depicted by the NYU Institute for Public Integrity. Indeed, "if the U.S. power sector were a country, it would rank as the sixth biggest emitter in the world in the year 2022 and would have contributed 5% of total worldwide emissions from 1990-2022 —falling just barely behind India (6% of cumulative emissions) and Russia (6%), but ahead of major countries like Japan (3%), Brazil (2%), Canada (2%), Mexico (1%), and Australia (1%)."[6]

The significance of US power sector emissions is also thrown into sharp relief when one considers its share not of total world emissions but rather of global *power sector* emissions – a more legitimate apples-to-apples comparison. While it is true that the US share of world power sector emissions has also declined, from a high of 29% in the year 2000, it remained 11.5% of global power sector emissions in 2024, as the following diagram we derived using Ember's Electricity Data Explorer illustrates.[7]

[4] Your Agency's comparison of the US power sector's emissions to total global emissions appears contrary to OIRA's instruction "that, unless otherwise required by law, any consideration of GHG emissions should be limited to domestic effects." https://www.whitehouse.gov/wp-content/uploads/2025/02/M-25-27-Guidance-Implementing-Section-6-of-Executive-Order-14154-Entitled-Unleashing-American-Energy.pdf

[5] *See*, for example, Hansen, J, 2016: *Ice melt, sea level rise and superstorms:/ evidence from paleoclimate data, climate modeling, and modern observations that 2 C global warming could be dangerous* Atmos. Chem. Phys., 16, 3761-3812. doi:10.5194/acp-16-3761-2016; Intergovernmental Panel on Climate Change, Special Report: Global Warming of 1.5ºC (2018) https://www.ipcc.ch/sr15/; Hansen, J.E., M. Sato, L. Simons, L.S. Nazarenko, I. Sangha, P. Kharecha, et al. 2023: *Global warming in the pipeline*, Oxford Open Climate Change, 3, Issue 1, kgad008; Hansen, J.E., P. Kharecha, M. Sato, et al. 2025: Global warming has accelerated: are the United Nations and the public well-informed?, *Environment: Science and Policy for Sustainable Development*, **67**(1), 6–44. https://doi.org/10.1080/00139157.2025.2434494

[6] The Scale of Significance: Power Plants: The U.S. Power Sector's Annual Climate Pollution Causes Thousands of Deaths and Massive Economic Damage (May 2025) https://policyintegrity.org/files/publications/Power_Sector_GHG_Contribution_Issue_Brief_vF.pdf at 2-3.

[7] Calculations by CPR Initiative, based on a Yearly Electricity Dataset maintained by Ember at https://ember-energy.org/data/electricity-data-explorer/#datasets

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Moreover, the US contribution to global GHG emissions from the power sector is especially outsized when one considers that the US population is only 4.2 percent of the global total.

Your argument that a numerically small share of world emissions deriving from just one US sector must be deemed not significant was dispensed with 18 years ago, by the US Supreme Court in its seminal 2007 decision, *Massachusetts v EPA*. There, your Agency had argued that any restrictions that might be placed on US vehicle emissions could never contribute significantly to mitigation of dangerous climate change, especially because "emissions from developing nations, particularly China and India, are likely to offset any marginal domestic decrease."

Continuing, the Supreme Court observed that EPA's argument, raised in the context of debate over the climate litigants' standing, rested on "the erroneous assumption":

"that a small incremental step, because it is incremental, can never be attacked in a federal judicial forum. Yet accepting that premise would doom most challenges to regulatory action. Agencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop. See Williamson v. Lee Optical of Okla., Inc., 348 U. S. 483, 489 (1955) ("[A] reform may take one step at a time, addressing itself to the phase of the problem which seems most acute to the legislative mind"). They instead whittle away at them over time, refining their preferred approach as circumstances change and as they develop a more-nuanced understanding of how best to proceed. Cf. SEC v. Chenery Corp., 332 U. S. 194, 202 (1947) ("Some principles must await their own development, while others must be adjusted to meet particular, unforeseeable situations"). . . .

"And reducing domestic automobile emissions is hardly a tentative step. Even leaving aside the other greenhouse gases, the United States transportation sector emits an enormous quantity of

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carbon dioxide into the atmosphere—according to the MacCracken affidavit, more than 1.7 billion metric tons in 1999 alone. That accounts for more than 6% of worldwide carbon dioxide emissions. *Id.,* at 232 (Oppenheimer Decl. ¶3); see also MacCracken Decl. ¶31, at 220. To put this in perspective: Considering just emissions from the transportation sector, which represent less than one-third of this country's total carbon dioxide emissions, the United States would still rank as the third-largest emitter of carbon dioxide in the world, outpaced only by the European Union and China. Judged by any standard, U. S. motor-vehicle emissions make a meaningful contribution to greenhouse gas concentrations and hence, according to petitioners, to global warming." [8]

But what is true about US vehicle emissions is almost certainly true as well of US power sector emissions, since each sector's GHG emissions are within a few percentage points of the other.[9]

Moreover, you should have, in this proposal, forthrightly apprised not only the GHG emissions implications of the present action, but also that of closely related actions in your deregulatory drive.[10]

In particular, "On July 29, 2025, EPA proposed to rescind the 2009 Greenhouse Gas Endangerment Finding. The Endangerment Finding is a prerequisite for regulating emissions from new motor vehicles and new motor vehicle engines. Absent this finding, EPA [assertedly] lacks statutory authority under Section 202 of the Clean Air Act to prescribe standards for GHG emissions. Therefore, EPA also proposed to remove GHG regulations for light-, medium-, and heavy-duty on-highway vehicles."[11]

In combination, then, your Agency is proposing to repeal all federal GHG restrictions on fossil fuel-fired power plants, and on fossil fuel-fired autos and trucks. These two sectors, as denoted above, account for 53 percent of annual US emissions, according to data previously compiled by your Agency. Emissions from these two US sectors account for over 6 percent of global GHG emissions from all sources.

Moreover, your proposal fails to address your own Agency's reasoning from its 2024 RIA concerning the very Carbon Pollution Standards you now seek to repeal, particularly concerning the fundamental need for international cooperation and reciprocity in addressing dangerous climate change. As you noted then:

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[8] *Massachusetts v. EPA,* 549 U.S. 497 (2007) available https://supreme.justia.com/cases/federal/us/549/497/.

[9] Transportation accounted for 28 percent of US GHG emissions in 2022, while the electric power sector accounted for 25 percent. EPA, Sources of Greenhouse Gas Emissions, https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions.

[10] EPA Launches Biggest Deregulatory Action in U.S. History (March 12, 2025) at https://www.epa.gov/newsreleases/epa-launches-biggest-deregulatory-action-us-history.

[11] EPA, Proposed Rule: Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards, https://www.epa.gov/regulations-emissions-vehicles-and-engines/proposed-rule-reconsideration-2009-endangerment-finding.

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> International cooperation and reciprocity are essential to successfully addressing climate change, as the global nature of GHGs means that a ton of GHGs emitted in any other country harms . . . the U.S. just as much as a ton emitted within the territorial U.S. Assessing the benefits of U.S. GHG mitigation activities requires consideration of how those actions may affect mitigation activities by other countries, as those international mitigation actions will provide a benefit to U.S. citizens and residents by mitigating climate impacts that affect U.S. citizens and residents. This is a classic public goods problem because each country's reductions benefit everyone else, and no country can be excluded from enjoying the benefits of other countries' reductions. . .
>
> A wide range of scientific and economic experts have emphasized the issue of international cooperation and reciprocity as support for assessing global damages of GHG emission in domestic policy analysis. Using a global estimate of damages in U.S. analyses of regulatory actions allows the U.S. to continue to actively encourage other nations, including emerging major economies, to also assess global climate damages of their policies and to take steps to reduce emissions. For example, many countries and international institutions have already explicitly adapted the global SC-GHG estimates used by EPA in their domestic analyses (e.g., Canada, Israel) or developed their own estimates of global damages (e.g., Germany), and recently, there has been renewed interest by other countries to update their estimates since the draft release of the updated SC-GHG estimates presented in the December 2022 oil and natural gas sector supplemental proposal RIA.75 Several recent studies have empirically examined the evidence on international GHG mitigation reciprocity, through both policy diffusion and technology diffusion effects.[12]

Further, the 2024 RIA for the extant Carbon Pollution Standards – standards that you here seek to repeal -- estimated between $30 and 34 billion in climate benefits, but you have here credited only the 2024 RIA's compliance costs and not its estimate of climate benefits. Accordingly, your outcome-determinative approach runs counter to the Supreme Court's rule in *Michigan v. EPA* (2015) wherein the Court determined that even indirect benefits nonetheless must be considered when they are decidedly not zero.

Nearly every other industrialized nation now retains a GHG emission trading scheme requiring the monetization of CO2 emissions; they thus monetize (or allow for the monetization) of the benefits of emissions reductions. But in the present proposal you have not supported your assertion that monetizing the disbenefits of climate deregulation is too uncertain to be undertaken. Again, because the present climate disbenefits of repeal are not zero, they must be accounted for both with respect to the main repeal proposal and also with respect to your alternative proposal to repeal guidelines and best system of emissions reduction (BSER) determinations and requirements. (C-13, 14, 16, 24, 28, 31, and 32).

[12] https://www.epa.gov/system/files/documents/2024-04/2024-mats-rtr-final-ria-final.pdf at 152-3.

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For the above reasons, at least, your proposed determination -- that GHG emissions from the EGU source category do not ‘‘contribute significantly’’ to dangerous air pollution -- is simply unwarranted.

C-16, 17, 28, 34 Concerning EPA’s new assertion that 90 percent CCS is not the BSER for modified and existing long-term coal-fired steam generating units because not adequately demonstrated

Whether or not CCS is adequately demonstrated at the 90 percent level, the technology is sufficiently demonstrated at some non-zero level of efficiency. Accordingly, your entire vacatur of this BSER standard is not warranted: EPA’s obligation here was to propose a modification of the BSER standard, if supportable, but not simply to discard it.

Our position in this regarding is supported by the fact that CCS is not the only technology or intervention available to lower emissions of CO2 from modified or existing power plants. According to data from the U.S. Energy Information Administration (EIA), 121 U.S. coal-fired power plants were repurposed to burn other types of fuels between 2011 and 2019, 103 of which were converted to or replaced by natural gas-fired plants. At the end of 2010, 316.8 gigawatts (GW) of coal-fired capacity existed in the United States, but by the end of 2019, 49.2 GW of that amount was retired, 14.3 GW had the boiler converted to burn natural gas, and 15.3 GW was replaced with natural gas combined cycle. The decisions by operators to switch from coal to natural gas was driven by stricter emission standards, low natural gas prices, and more efficient new natural gas turbine technology.

The above-points having been made, we are not here preferring fuel-switching over the retirement and replacement of fossil fuel-fired power plants with zero or near-zero emissions sources. The point instead is that EPA’s present “alternative proposal” -- to simply repeal the emission guidelines for existing fossil fuel-fired steam generating units, the CCS-based standards for modified coalfired steam generating units, and the CCS-based standards for new base load stationary combustion turbines -- is not warranted, particularly in light of the menu of demonstrated alternatives.

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Furthermore, as your Agency emphasized in 2015, "the BSER is the central determination that the EPA must make in formulating the guidelines" for the limitation of GHG emissions from existing power plants.[13] However, you do not, in your proposal – likely because you could not -- even attempt to establish that the "best system of emission reduction" is really no BSER at all. Accordingly, your proposed repeal of all existing BSERs cannot satisfy your statutory obligation to establish and maintain BSERs for each sub-category of fossil fuel-fired power plant.

Respectfully submitted this 7th day of August 2025 on behalf of CPR Initiative and the undersigned:

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[13] 80 FR 64662, 64723.

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