

Comments of Jay Duffy; Clean Air Task Force, Attorney  
at Public Hearing on Proposed NSPS for Greenhouse Gas Emissions from New,  
Modified, and Reconstructed EGUs

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Good afternoon, my name is Jay Duffy and I am an attorney with Clean Air Task Force. CATF seeks to help safeguard against the worst impacts of climate change by working to catalyze the rapid global development and deployment of low carbon energy and other climate-protecting technologies, through research and analysis and public advocacy leadership.

The Clean Air Act requires “maximum feasible control of new sources at the time of their construction”<sup>1</sup> to promote public health and welfare and prevent air pollution. Congress recognized that building pollution control right into the design of new plants makes the most economic sense. Section 111(b) of the Act, in particular, requires new source standard setting to be forward-looking and technology-forcing, based on the *best* system of emission reduction.

EPA recently proposed to roll back current new source standards for the largest stationary source of greenhouse gas – coal-fired power plants – arguing that the *best system* for new plants is an efficient steam cycle meeting a 1,900-2,200 lbs. CO<sub>2</sub>/MWh-g emission rate.<sup>2</sup> However, in the record underlying the current 1,400 CO<sub>2</sub>/MWh-g standard, EPA rejected an even-lower 1,800 lbs. CO<sub>2</sub>/MWh-g standard, because it failed to significantly reduce CO<sub>2</sub> emissions as compared to business as usual or provide an incentive for technological innovation. EPA is now essentially declaring that efficiency technology that was current 30 years ago, is the *best* a new coal plant can do today despite the fact that advanced ultra-supercritical capacity is currently operating internationally with emission rates below 1,500 lbs. CO<sub>2</sub>/MWh-g.<sup>3</sup>

But the sector can do even better than efficiency measures. The current standard, finalized in 2015, has as its technical basis a power plant capturing and sequestering 16-23% of its CO<sub>2</sub> emissions. The standard can also be met by co-firing with natural gas or by building an IGCC.<sup>4</sup> The Agency concluded, based on

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<sup>1</sup> S. Comm. Rep. No. 91-1196 at 16 (1977).

<sup>2</sup> 83 Fed. Reg. at 65,427.

<sup>3</sup> Wood Mackenzie, *Outlook and Benefits of an Efficient U.S. Coal Fleet*, at 4 (Jan. 2019), <https://nma.org/wp-content/uploads/2019/01/Outlook-and-Benefits-of-An-Efficient-U.S.-Coal-Fleet.pdf>.

<sup>4</sup> 80 Fed. Reg. at 64,513.

a voluminous record, that the standard is achievable for “all fuel types, under a wide range of conditions, and throughout the United States.”<sup>5</sup> EPA’s new Proposal isn’t supported by the Agency’s record.



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The Agency’s inquiry and standard setting under section 111(b) requires a forward-looking and technology forcing approach. Carbon capture and sequestration remains adequately demonstrated and cost reasonable, based on large-scale power plant CCS projects in operation, projects in other industries, smaller scale CCS projects, vendor guarantees and the scientific and technical literature. The current Proposal not only fails to distinguish the record before the Agency, it fails even to develop a record supporting the weaker rate it now advances. Cherry-picking and mischaracterizing the 2015 record and ignoring currently available information is not enough to disprove the state of the technology and science supporting CCS.

In fact, CCS is *more* cost-effective and available today than it was in 2015 – supporting a *more*, not less, stringent standard. Since the current rule was finalized, the Petra Nova power plant CCS retrofit came online, on time and on budget, and has captured over 2 million tons of CO<sub>2</sub>. The Boundary Dam power plant CCS retrofit has captured over 2.5 million tons of CO<sub>2</sub> and its performance has improved every year.<sup>6</sup> In 2018, the 45Q tax credit for sequestering carbon was greatly expanded, from \$10/ton to \$20/ton for enhanced oil recovery, and \$35/ton to \$50/ton for saline. CATF modeling, released this week, shows that as a result of the credit nearly 49 million tonnes of CO<sub>2</sub> could be captured and stored annually by 2030 from U.S. coal- and gas-fired power plants.<sup>7</sup> Meanwhile, the team behind Boundary Dam recently found that the costs of the next project would be 67% cheaper,<sup>8</sup> and the company behind Petra Nova’s capture technology recently stated that the “total project cost of the CO<sub>2</sub> capture and compression is expected to be reduced by nearly 30% for the next large scale plant.”<sup>9</sup>

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<sup>5</sup> 80 Fed. Reg. at 64,513.

<sup>6</sup> SaskPower, “BD3 Status Update: December 2018,” (Jan. 11, 2019),

<https://www.saskpower.com/about-us/our-company/blog/bd3-status-update-december-2018>.

<sup>7</sup> Deepika Nagabhushan & John Thompson, CATF, *Carbon Capture and Storage in the United States Power Sector: The Impact of 45Q Federal Tax Credits*, (Feb. 2019), [https://www.catf.us/wp-content/uploads/2019/02/CATF\\_CCS\\_United\\_States\\_Power\\_Sector.pdf](https://www.catf.us/wp-content/uploads/2019/02/CATF_CCS_United_States_Power_Sector.pdf).

<sup>8</sup> International CCS Knowledge Centre, *The Shand CCS Feasibility Study: Public Report*, (Nov. 2018), [https://ccsknowledge.com/pub/documents/publications/Shand%20CCS%20Feasibility%20Study%20Public%20Full%20Report\\_NOV2018.pdf](https://ccsknowledge.com/pub/documents/publications/Shand%20CCS%20Feasibility%20Study%20Public%20Full%20Report_NOV2018.pdf).

<sup>9</sup> Hiroshi Tanaka, *et al.*, *Advanced KM CDR Process using New Solvent*, at 1 (Oct. 2018), <https://www.sciencedirect.com/science/article/pii/S187661021731901X>.



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Moreover, the proposed standards will harm human health. At the low-end - 1,900 lbs. CO<sub>2</sub>/MWh-g - according to EPA, the Proposal would permit a new 600 MW plant to emit 500 additional tons of SO<sub>2</sub> per year and 1.1 million additional tons of CO<sub>2</sub> per year.<sup>10</sup> Over the course of an average 48-year lifetime, it would emit at least 24,000 additional tons of SO<sub>2</sub> and 52.8 million additional tons of CO<sub>2</sub>.<sup>11</sup> To put this in context, EPA claims that the *entire* ACE Proposal, which covers *all* existing fossil fuel-fired power plants would reduce SO<sub>2</sub> emissions by 1,000 tons and CO<sub>2</sub> emissions by 7 million tons by 2035.<sup>12</sup> *One* new plant under *this* rule, though, would wipe out any claimed improvements under ACE many times over, leaving public health harms and climate damage in its wake.

As EPA stated clearly in 2015, “the whole purpose of a new source standard... is to reflect the best system of emission reduction, not some type of least common denominator.”<sup>13</sup> EPA acts against its mandate in proposing to weaken the current standard based on unsupported assertions that it cannot be achieved everywhere. The current standard of 1,400 lbs. CO<sub>2</sub>/MWh-g can be met through a variety of broadly accessible measures and EPA’s Proposal has not shown otherwise. The proposed new standard, by contrast will harm public health, without any basis in science or technology, and without the forward-looking, technology-forcing thinking the Act requires. EPA has no basis for this rollback and must not finalize it.

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<sup>10</sup> EPA, Economic Impact Analysis for the Review of Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units, at 2-4 – 2-6 tbls. 2-1, 2-6, & 2-7 (Dec. 2018).

<sup>11</sup> *Id.*

<sup>12</sup> EPA, Regulatory Impact Analysis for the Proposed Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program, at ES-10, tbl. ES-8 (Aug. 2018).

<sup>13</sup> EPA, Response to Comments, at 6-225 (2015).