

April 1, 2014

Gina McCarthy, Administrator
U.S. Environmental Protection Agency
EPA Docket Center
Mail Code 2822T
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Attn: Docket ID No. EPA-HQ-OAR-2013-0495

Via Email: a-and-r-docket@epa.gov

Re: Standards of Performance for Greenhouse Gas Emissions From New Stationary Sources: Electric Utility Generating Units

Dear Administrator McCarthy:

The Northeast States for Coordinated Air Use Management (NESCAUM) offer the following comments on the U.S. Environmental Protection Agency's (EPA's) Proposed Rule, published on January 8, 2014 in the Federal Register, entitled *Standards of Performance for Greenhouse Gas Emissions From New Stationary Sources: Electric Utility Generating Units* [79 FR 1430-1519]. NESCAUM is the regional association of state air pollution control agencies representing Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

1. Best System of Emission Reduction (BSER) [79 FR 1434, 1468]

The "best system of emission reduction" under CAA § 111 should consider technology innovation, which can include carbon capture and storage. Prior to the passage of the 1970 Clean Air Act, waiting for industry to develop and implement innovative approaches to reduce air pollution was not achieving results. In 1967 during a congressional hearing on air pollution leading up to passage of the 1970 Clean Air Act, the U.S. Secretary of Health, Education and Welfare (HEW)¹ testified, "[T]he state of the art has tended to meander along until some sort of regulation took it by the hand and gave it a good pull. . . . There has been a long period of waiting for it, and it hasn't worked very well."² As seen in the CAA legislative history cited in the rule proposal [79 FR 1465], Congress incorporated notions of "technology forcing" in the CAA to promote greater technology innovation.

Past work by NESCAUM has identified several areas where Clean Air Act requirements successfully advanced the state of art in air pollution control that otherwise might not have

¹ HEW was the lead federal agency for air pollution prior to the creation of the EPA in 1970.

² Hearings on Air Pollution—1967, Hearings before the Subcomm. on Air and Water Pollution, Sen. Comm. On Public Works, 90th Cong., 1st Sess., pt. 2, p. 766-767 (1967) (testimony of HEW Secretary John Gardner).

occurred without the statutory and regulatory requirements of the CAA. In a 2000 NESCAUM report on the technology potential for controlling mercury emissions from coal-fired boilers, we summarized several case studies as examples of regulations promoting innovation in air pollution control. These historical examples included efforts to reduce air pollution from automobiles, nitrogen oxides from coal-fired boilers, and sulfur dioxide emissions from coal-fired boilers. From these case studies, we concluded that, “Where strong regulatory drivers exist, substantial technological improvements and steady reductions in control costs almost always follow. This dynamic has occurred even when control options were limited or largely untested at the time regulations were introduced.”³

Industry has also recognized that regulatory drivers have led to technology advances that otherwise would not have occurred. For example, in order to meet increasingly stringent automobile emission standards during the 1990s, auto engineers at General Motors had to develop more sophisticated engine controls that led to a “trio of benefits” previously considered incompatible: low pollution, more power, and better fuel economy. A member of the General Motors design team said, “We’d like to tell you we just up and did it, but it’s the regs.”⁴

2. 84-Operating-Month Rolling Average Compliance Option [79 FR 1448]

The EPA is proposing an 84-operating-month rolling average compliance option that would be equivalent to or more stringent than a 12-operating-month rolling average compliance period. This option would create significant difficulties in effective enforcement should a new EGU fail to achieve the carbon dioxide (CO₂) standard at the end of the initial 84-operating-month period. If a new EGU fails to achieve the NSPS due to failure to install sufficient CO₂ reduction measures during construction, there may be little recourse available to bring the new EGU into compliance at a later date.

If the EPA is to provide the longer term compliance option, it should be done in a manner that seeks to achieve greater total CO₂ reductions over the lifetime of an EGU relative to the 12-operating-month compliance period, and provides effective deterrence mechanisms at the onset to avoid later noncompliance. Penalties for violating the standard under the longer compliance period option need to be scaled to a level that provides effective deterrence, and should be uniformly applied across all states and regions. In addition, if a new EGU opts for the longer compliance option, it should be coupled to a more stringent (not equivalent) emission rate relative to a 12-operating-month standard, and it should not be allowed to later opt out of the more stringent standard under a shorter compliance period. Noncompliance penalties should continue to be assessed according to the more stringent CO₂ emission limit of the 84-operating-month option on a rolling monthly basis.

If the EPA retains the 84-operating-month option, it should also be done in a manner consistent with promoting greater technology innovation under the CAA such that it would require development and installation of measures that go beyond that needed for a 12-operating-month NSPS. For example, this could include installation of a carbon capture and storage system achieving

³ *Environmental Regulation and Technology Innovation: Controlling Mercury from Coal-Fired Boilers*, Report by NESCAUM, Boston, MA (September 2000); available at http://www.nescaum.org/documents/rpt000906mercury_innovative-technology.pdf.

⁴ *Anti-Smog Push Sparks Revved-Up Engines*, USA Today, p. 1B (Aug. 17, 1995). Additional examples from the history of automobile pollution control are in: Miller, P. and Solomon, M., *A Brief History of Technology-Forcing Motor Vehicle Regulations*, EM (Air & Waste Management Association) pp. 4-8 (June 2009); available at <http://www.nescaum.org/documents/a-brief-history-of-technology-forcing-motor-vehicle-regulations>.

greater capture of CO₂ over the life of a new coal-fired EGU than would result under the 12-operating-month option.

3. Malfunctions [79 FR 1449]

An affirmative defense to civil penalties for malfunctions is not appropriate under either a 12-operating-month standard or a potential 84-operating-month rolling average compliance option for greenhouse gases. The compliance options proposed by the EPA cover significant time spans, whereas malfunctions should be of short time duration only. For equipment to “malfunction” long enough to affect compliance with either a 12-month or 84-month standard suggests an extraordinarily long period of malfunctioning time, and could encourage poor operational practice.

4. Applicability Requirements Based on Electric Output [79 FR 1459]

In the proposal, in addition to the typical NSPS applicability criteria (i.e., a source must be greater than 250 million Btu per hour (mmBtu/hr) heat input), EPA is also proposing to include applicability provisions akin to the Title IV Acid Rain applicability provisions. These additional applicability criteria would apply for new fossil fuel-fired electric utility steam generating units, integrated gasification/combined cycle (IGCC) sources, and natural gas-fired stationary combustion turbines for the purpose of regulating CO₂ emissions from these sources.

For example, the applicability determination for boilers and IGCCs (40 CFR 46Da) would require a source to fire a minimum of 10.0 percent fossil fuels during any consecutive 3 calendar years. Furthermore, the source must supply more than one-third of its potential electric output and more than 219,000 megawatt hours (MWh) net-electric output to the electric grid for sale on an annual basis.

Similarly, the applicability determination for natural gas fired stationary combustion turbines (40 CFR 4305) would require a source to fire a minimum of 10.0 percent fossil fuels during any consecutive 3 calendar years and combust over 90 percent natural gas on a heat input basis on a 3-year rolling average basis. The source must also supply more than one-third of its potential electric output and more than 219,000 MWh net-electric output to the electric grid for sale on a 3-year rolling average basis.

NSPS regulations are intended to be “once-in-always-in” provisions, which have always been EPA’s policy and practice for other sources, and for other pollutants from similar sources. NSPS applicability should not be “optional” in that it may disappear and return from year-to-year. To avoid NSPS, the EGU must be subject to an enforceable operational limit in its operating permit so that from its initial construction, it is not allowed to exceed any of the threshold criteria listed by the EPA at any point in its operating lifetime that would have made it subject to NSPS at the time of construction.

5. Modified or Reconstructed EGUs [79 FR 1489]

In its proposed NSPS, the EPA is applying CAA § 111(b) to new EGUs, but not modified or reconstructed EGUs at this time. Without such requirements for modified or reconstructed EGUs, the EPA may create incentives for incremental changes at existing EGUs that extend their lifetimes while avoiding implementation of GHG reduction measures. This is similar to the problems raised under the CAA when pre-existing fossil fuel-fired EGUs were “grandfathered”

from investing money in new air pollution control requirements on the expectation they would retire relatively soon. The anticipated retirements did not occur, as the lifetimes of those grandfathered EGUs were extended in piecemeal fashion to avoid installing modern pollution controls. The EPA should act quickly to ensure that the lack of GHG requirements for modified or reconstructed EGUs does not encourage the prolonged lifetime of less efficient, higher emitting facilities.

6. Title V Permit Fees [79 FR 1490-1495]

Individual states should have the flexibility to decide how to charge Title V permit fees according to their own circumstances, including not charging fees for greenhouse gas emissions if a state already collects sufficient fees to meet the Title V program support requirements.

If you or your staff has any questions regarding these comments, please contact Dr. Paul Miller, NESCAUM Deputy Director, at 617-259-2016.

Sincerely,



Arthur N. Marin
Executive Director

cc: NESCAUM directors

Dr. Nick Hutson, EPA OAQPS, Sector Policies and Programs Division
Christian Fellner, EPA OAQPS, Sector Policies and Programs Division