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Re: Increasing Consistency and Transparency in Considering Costs and Benefits in Rulemaking Process, Docket ID No. EPA-HQ-OA-2018-0107

The National Association of Manufacturers (NAM), the largest manufacturing association in the United States representing manufacturers in every industrial sector and in all 50 states, submits the following comments in response to the request by the Environmental Protection Agency (EPA) for input on Increasing Consistency and Transparency in Considering Costs and Benefits in Rulemaking Process, Docket ID No. EPA-HQ-OA-2018-0107.

Manufacturers appreciate the EPA's focus on improving the process by which the Agency issues regulations. We are committed to achieving the ambitious environmental goals the EPA has been entrusted by Congress to administer. As the primary stakeholders regulated by the EPA and state environmental agencies, manufacturers have a great deal of experience in regulatory process and should be relied upon as key partners in the EPA's quest to improve consistency and transparency.

These comments are divided into two sections. The first provides general policy advice on how to increase consistency and transparency in the regulatory process. The second provides examples of EPA's approach to costs and benefits in specific rulemakings and the shortcomings and inconsistencies that occurred in each.

I. Policy Recommendations

Manufacturers strongly support EPA's mission. Moreover, the benefits of appropriate regulations are clear and supported by the public. The issue is how to enable the regulatory system to address legitimate concerns without unreasonably impeding innovation, research, development and product deployment. Too often in the regulatory process, the vital national public policy objectives of international competitiveness and technological innovation are given short shrift due to other competing mandates. In order to protect public health and the environment, the NAM supports a regulatory process designed to adhere to sound principles of science, risk assessment and robust benefit-cost analysis.

A fair rulemaking process is an inclusive one. It is fundamental that community stakeholders, especially small manufacturers who will be directly impacted by regulations, have a seat at the table when rules are being written, evaluated and finalized. Solid, unbiased scientific information is key to developing honest risk-assessments, cost estimates and smarter regulations. Improved risk assessment methodologies will, in turn, inform a more reliable benefits valuation. Utilizing balanced peer review and scientific advisory panels when evaluating rules will ensure outdated, partial or flawed studies don't influence our public policies. Backroom negotiations, partisan rulemaking and bureaucratic decisions only lead to confusion. An open and honest regulatory process will be easy for public stakeholders to understand and engage with, and clear in its use of methods and data.

Manufacturers will continue to lead by minimizing environmental footprints, reducing emissions, conserving critical resources, protecting biodiversity, limiting waste and providing safe products and solutions so others in the economy can do the same. However, we need better regulations. And to get those, we need a regulatory process that is not opaque. In our view, there are three pillars of effective regulatory cost considerations: transparency, scientific integrity and accountability. In other words, the rule-making process should be conducted out in the open and backed up by objective, unimpeachable science, while being overseen by officials who are held accountable.

As a general matter, EPA should focus on increasing consistency in the quality, rigor and objectivity of the information it relies on and presents throughout all its rulemakings.¹ The agency should strive above all else to be intellectually honest, even when doing so is politically inconvenient. If costs and benefits will accrue over a 30-year time horizon, the Agency should provide cost and benefit estimates for the whole time horizon, not simply a snapshot of what costs and benefits would look like in a given year within the range. When compliance with a rule is based on unknown controls, EPA must base its calculation of those unknown controls on realistic assumptions. When costs and benefits will accrue to the whole economy, EPA should model the impact on the whole economy, not just a part of it. The Agency should avoid relying on outdated data, studies and methodologies, and it should similarly avoid being overly speculative.

The Agency can achieve the consistency and specificity it seeks through statute-specific rulemakings that allow for more tailored approaches reflecting the unique statutory requirements. While EPA should seek greater consistency in the definition of key terms and in the objectivity and rigor of the analysis, the Agency should not expect to develop definitions to apply rigidly across all programs. Instead, statute-specific rules can focus on the specific regulatory authorities under each statute in a way that more precisely applies to the regulatory contexts under consideration.

Real reforms to our regulatory process will bring solutions that provide continued environmental improvement while fostering a more predictable and achievable set of outcomes for manufacturers and the regulated community. Adopting these basic principles will make the rulemaking process more predictable and establish safeguards against regulators acting on a political agenda. Ultimately, we hope this effort yields framework rules under each of our foundational environmental statutes that will drive real, sustained reductions in pollution in a manner that provides more transparency, flexibility and collaboration than has been the case in the past. The EPA has a unique opportunity to prove that it can accomplish this goal.

¹ The NAM also supports the recommendations made by our Virginia state allied group, the Virginia Manufacturers Association, in comments filed to this docket.

II. Specific Examples

The examples included below bring into focus opportunities for improvements to the process by which the regulations are made. They are not meant to be an exhaustive set, nor are they meant to cast doubt on the need to protect the public from pollution. Rather, they are included to demonstrate the importance of increasing consistency and transparency. Each environmental statute has a unique structure and objective, so the process of rulemakings will differ. Far too often we see the same themes arise: the process has been inflexible, unresponsive to stakeholder input, and wedded to outcomes that seemed predetermined. For the Agency to truly reform the way it regulates, it must look not only at individual regulations but also the whole regulatory system as applied under each statute.

A. Standards of Performance for Greenhouse Gas Emissions from New Stationary Sources: Electric Utility Generating Units

In *Standards of Performance for Greenhouse Gas Emissions from New Stationary Sources: Electric Utility Generating Units*,² the EPA erroneously concluded that its proposed rule—which effectively banned the construction of new coal-fired power plants—would have no costs or benefits because, at the time of proposal, EPA did not believe anyone would build a coal-fired power plant due to favorable market conditions for other energy sources.³ Accordingly, the Agency declined to conduct full cost-benefit and economic impact analyses.

Contrary to the EPA's assertions, coal-fired Electric Generating Units (EGUs) have remained a viable option for power generation. As a result, the EPA's failure to conduct a complete cost-benefit analysis for the proposed rule at the time was arbitrary, capricious, and unlawful. Rather than addressing the real-world costs and benefits of requiring coal-fired EGUs to install carbon capture and storage (CCS) technology, the EPA prepared several models which allegedly show that coal-fired EGUs will not be cost-effective. But the EPA must evaluate the costs and benefits of the emission control technology it has proposed, not the costs and benefits of fuel switching.

The EPA's deficient analysis underestimates the likely consequences of the EPA's proposal and violates the Clean Air Act. For example, Section 317 of the Act requires an economic impact analysis for "any new source standard of performance under section [111] of this title." CAA § 317(a)(1). The EPA failed to even mention Section 317 in the proposed rule or regulatory impact analysis (RIA) for the rule. The economic impact analysis must be "as extensive as practicable," *id.*, and the EPA's superficial treatment of economic impacts is insufficient and fails to account for the short- and long-term impacts of the *de facto* ban on coal. Likewise, under Executive Order 13563, the EPA must "take into account the benefits and costs, both quantitative and qualitative," and "propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs" The proposed rule would have had a direct effect on the development of new coal-fired EGUs. A proper economic impact analysis that complies with Section 317 of the Clean Air Act and Executive Order 13563 would undoubtedly rebut the EPA's "no cost" conclusion and demonstrate the arbitrariness of the EPA's analysis.

² Docket ID No. EPA-HQ-OAR-2013-0495; FRL-9839-4, 79 Fed. Reg. 1,430 (January 8, 2014).

³ 79 Fed. Reg. at 1,433.

B. *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generation Units, Proposed Rule*

In *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generation Units, Proposed Rule*,⁴ more commonly known as the Clean Power Plan, the EPA overestimated the potential benefits of the proposal and underestimated the costs, leading to the erroneous conclusion that the proposed rule would produce net economic benefits. First, the rule relied on the Social Cost of Carbon (SCC), a calculation fraught with uncertainties and based off an assumption of benefits that stretch to the year 2300. The rule also took credit for benefits for global CO₂ reductions when only seven to ten percent of the projected global SCC benefits accrued to the United States. As a result, the benefits totals in the proposal were erroneously overstated. EPA made no effort to account for international leakage of CO₂ emissions that would accrue as a result of the rule. EPA concluded that the proposed rule would have a net positive effect on employment but failed to conduct whole economy modeling to justify this conclusion. Finally, EPA used co-benefits from reduction of criteria pollutants—ancillary and unintended benefits of the rule—to justify the rule itself. This was particularly problematic because EPA is barred from directly regulating criteria pollutants under CAA Section 111(d).

C. *Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, Proposed Rule*

In *Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, Proposed Rule*,⁵ also known as the Risk Management Plan Rule, the EPA failed to make any effort to quantify the expected benefits of the rule, making any comparison to the costs impossible. This was a clear violation of Executive Order 13563, which directs agencies to “propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs” In addition, EPA inappropriately included projected benefits related to on-site impacts of accidental releases that overlap with authority provided to the Occupational Safety and Health Administration (OSHA). Finally, EPA underestimated the costs of complying with the proposed rule. If all of these deficiencies were addressed, it is likely that the costs of the proposed rule would have significantly exceeded the expected benefits.

D. *National Ambient Air Quality Standards for Ozone*

In *National Ambient Air Quality Standards for Ozone*,⁶ EPA made a series of questionable decisions when evaluating costs and benefits. First, EPA significantly underestimated the costs of complying with the proposed revisions by focusing solely on emissions reductions needed from a 2025 baseline rather than the cost of implementation over time. Second, EPA underestimated the costs of the rule by basing its analysis on multi-state regions rather than individual states. Third, EPA’s reliance on significant baseline reductions in emissions from mobile sources is misplaced—EPA factored in measures like the 2021-26 fuel economy and GHG regulations, which were subject to a midterm evaluation and which we now know are uncertain to continue at their existing levels. Fourth, EPA inappropriately relied on emissions reductions attributable to the *proposed* Section 111(d) Clean Power Plan, which changed considerably between proposed and final rule status (and which has since been blocked by the Supreme Court and revoked). Fifth, EPA’s fixed cost estimate of \$15,000 per ton

⁴ Docket ID No. EPA-HQ-OAR-20130602; FRL-9910-86-OAR, 79 Fed. Reg. 34,830 (June 18, 2014).

⁵ Docket ID No. EPA-HQ-OEM-2015-0725, 81 Fed. Reg. 13,638 (Mar. 14, 2016).

⁶ Docket ID NO. EPA-HQ-OAR-2008-0699, 80 Fed. Reg. 65,292 (Oct. 26, 2015).

for emissions from “unknown controls” likely significantly underestimated the actual costs of achieving the proposed ozone NAAQS at the most stringent levels in the range. Sixth, EPA’s sensitivity analysis for the cost of unknown controls was unduly narrow and likely understated the actual costs of those controls. Finally, the majority of the benefits that the Agency attributes to a revised standard are related not to ozone, but to reduced levels of particulate matter—a pollutant for which NAAQS were set two years earlier than the Administrator found to be protective of public health and welfare.

E. *Proposed Rule - Clean Water Act; Definitions: Waters of the United States*

In the 2014 *Proposed Rule - Clean Water Act; Definitions: Waters of the United States*,⁷ a third-party analysis of EPA’s cost-benefit estimation for the proposed “Waters of the United States” rule found that the Agency systematically underestimated the impact of the definitional changes.⁸ With respect to Section 404 permits, the EPA’s analysis only included two of four categories of costs associated with Section 404 compliance. The Agency also relied upon 20-year-old data that had not been adjusted for inflation.

EPA also failed to account for increased costs of obtaining Section 401 certification or the cost of delay associated with those additional 401 certifications; it inappropriately excluded potential costs from Section 402 NPDES permitting; it underestimated the number of new facilities who would be required to submit Section 311 plans; and it boldly concluded that there would be no impact to Section 303 state water quality standards without providing a thorough analysis to backup this claim.

On the benefits side, EPA relied on ten studies, nine of which were more than a decade old (and one that was 30 years old). Several of the studies relied on were not published in peer-reviewed journals. The benefits calculation also rests on an assumption that if federal jurisdiction were not expanded, the waters would somehow be impaired or compromised. This is a wholly unrealistic assumption. In all, the benefits calculation was not consistent with best practices in environmental economics.

F. *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*

In *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*,⁹ also known as the “Boiler MACT” proposal, the EPA relied on an outdated control cost manual that had not been updated in many years, and accordingly underestimated the total installed cost of air pollution control equipment.

An industry estimate based on more recent information, including actual vendor cost estimates, actual project costs, BACT and BART analyses and industry control cost studies yielded a cost estimate almost three times higher than EPA’s estimate (\$14.3 billion compared

⁷ Docket ID No. EPA-HQ-OW-2011-0880, 79 Fed. Reg. 22,188 (Apr. 21, 2014).

⁸ Review of the 2014 Economic Analysis of Proposed Revised Definition of Waters of the United States, Brattle Group, May 15, 2014, available at <http://www.brattle.com/news-and-knowledge/publications/review-of-2014-epa-economic-analysis-of-proposed-revised-definition-of-waters-of-the-united-states>.

⁹ Docket ID No. EPA-HQ-OAR-2002-0058, 76 Fed. Reg. 80,598 (December 23, 2011).

to \$5.4 billion).¹⁰ Similarly, the industry analysis found that EPA overestimated the co-benefits that would occur due to SO₂ removal; when corrected, the benefits calculation dropped by a factor of eight (from \$33 billion down to \$4 billion).¹¹

G. Proposed National Ambient Air Quality Standards for Particulate Matter

In *Proposed National Ambient Air Quality Standards for Particulate Matter*,¹² the EPA's assessment of costs and benefits of the proposed PM NAAQS rule failed to consider the PM2.5 emissions reductions that may occur anyway as a result of related regulatory programs that have been recently issued or proposed. As a result, it is likely that the EPA's projections double-counted the benefits associated with reducing emissions of PM2.5.

In the event that the expected reductions in PM2.5 would occur anyway, as a result of different regulatory programs, they should not be attributed to the EPA's proposed NAAQS. Because EPA failed to assess the incremental benefits that a revised NAAQS would provide, it was unable to accurately determine whether its proposal was truly requisite to protect the public health.

H. Regional Haze

The EPA's *Regional Haze* program has generated significant disagreement among regulators and the regulated community over the costs and benefits of the program.¹³ One such example occurred with respect to the Navajo Generating Station in Arizona. The National Renewable Energy Laboratory (NREL) performed an analysis of EPA's proposed haze regulations in Arizona and concluded, "whether the incremental contribution is significant or even perceptible is a matter of debate among experts in the field of visibility science."¹⁴

I. National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units

In *National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units*,¹⁵ more commonly known as the Mercury and Air Toxics Standards or MATS, the EPA's modeling predicted only 4.7 gigawatts (GW) of coal retirements as a result of the regulation.

¹⁰ A more thorough critique of the EPA's costs and benefits of the Boiler MACT rule can be found at <http://www.nam.org/Issues/Energy-and-Environment/Boiler-MACT/Technical-Trade-Association-Coalition-Comments-on-Boiler-MACT/>.

¹¹ *Id.* at 11-12.

¹² Docket ID No. EPA-HQ-OAR-2007-0492, 77 Fed. Reg. 38,890 (June 29, 2012).

¹³ See, e.g., "EPA's New Regulatory Front: Regional Haze and the Takeover of State Programs," available at https://www.uschamber.com/sites/default/files/legacy/reports/1207_ETRA_HazeReport_Ir.pdf.

¹⁴ David J. Hurlbut et al., "Navajo Generating Station and Air Visibility Regulations: Alternatives and Impact," National Renewable Energy Laboratory, available at <https://www.nrel.gov/docs/fy12osti/53024.pdf>.

¹⁵ Docket ID No. EPA-HQ-OAR-2009-0234, 77 Fed. Reg. 9304 (Feb. 16, 2012).

The Energy Information Administration (EIA) reported in 2016 that 54 GW of coal-fired capacity will retire as a direct result of MATS, a more than tenfold increase. EPA estimated that the rule would cost \$9.6 billion and generate benefits of \$36-90 billion; however, the vast majority of the benefits came from particulate matter co-benefits. EPA also chose to use a partial economy model instead of a whole economy model, which led to skewed results.

Using a partial economy model, EPA predicted that the rule would create 8,000 long-term jobs and 46,000 jobs during the implementation period. In contrast, a whole economy model constructed by NERA Economic Consulting showed initial job losses of 180,000 or more with long-term reductions of at least 50,000 jobs. This significant discrepancy shows the importance of conducting a detailed whole economy model, and casts doubt on the validity of EPA's employment conclusions that were based on a less rigorous partial economy model—concerns that were borne out in real life by the large number of plant closures.

J. *National Pollutant Discharge Elimination System – Cooling Water Intake Structures at Existing Facilities and Phase I Facilities*

In the EPA's proposed *National Pollutant Discharge Elimination System – Cooling Water Intake Structures at Existing Facilities and Phase I Facilities*, also known as the 316(b) Rule,¹⁶ the Agency introduced the concept of using a willingness-to-pay (WTP) survey as a potential benefits measurement. A WTP survey in such an instance, where individuals are asked their hypothetical willingness to pay for a social benefit, is questionable at best as a cost-benefit measurement tool.

At the time, by EPA's own estimate, using a 3 percent discount rate, the annual cost of compliance with the proposed impingement control requirements, as well as the myriad of permit application, monitoring, and reporting requirements, would have been just under \$384 million per year (or more at a higher discount rate) – and this does not include the costs of complying with Best Technology Available (BTA) determinations for entrainment under the proposed rule. Yet at a 3 percent rate, the Agency estimated that the rule will produce less than \$18 million in annualized benefits (or even less at a higher discount rate).

This 21-to-1 disparity of costs-to-benefits is not rational and, as noted, does not even take into consideration the cost for entrainment measures that would have been required under the proposed rule.

K. *Social Cost of Carbon & Social Cost of Methane*

Many recent EPA cost-benefit analyses have relied upon the *Social Cost of Carbon* (SCC), a calculation developed by an interagency working group that included EPA and eleven other federal agencies. The NAM does not take issue with the need to develop a figure such as the SCC, but we were very disappointed with the lack of transparency and failure to conduct real public outreach as the SCC was developed.

For instance, the models with inputs used for the SCC estimates and the subsequent analyses were not subject to peer review; the modeling conducted in this effort did not offer a reasonably acceptable range of accuracy for use in policymaking; the interagency working group failed to disclose and quantify key uncertainties to inform decision makers and the public about the effects and uncertainties of alternative regulatory actions; and by presenting only

¹⁶ Docket ID No. EPA-HQ-OW-2008-0667, 76 Fed. Reg. 22,174 (Apr. 20, 2011).

global SCC estimates and downplaying domestic SCC estimates in 2013, the IWG severely limited the utility of the SCC for use in benefit-cost analysis and policymaking.

In mid-2015, EPA began incorporating the *Social Cost of Methane* (SCM) into its rulemakings as well. The SCM, the data it is based upon and the methodology used to determine it, was not subject to a notice, review and comment process prior to its appearance in EPA rulemakings. In addition to lacking the hallmarks of the regulatory process and the Administrative Procedure Act—transparency, public notice, stakeholder input and meaningful review—the SCM failed to meet the guidelines and requirements of the OMB, including those imposed by the Information Quality Act.

L. *Prevention of Significant Deterioration permitting for GHGs*

The EPA has never accurately modeled the true economic impact of Prevention of Significant Deterioration (PSD) permitting for GHGs, which took effect in early 2011. PSD permitting can pose a barrier to new manufacturing expansions; applying the PSD provisions to GHGs could over time expose six million stationary sources to regulation. Instead of measuring PSD for GHGs when it triggered the authority in the *Final Rule for Model Year 2012-2016 Light Duty Vehicle GHG Emission Standards and Corporate Average Fuel Economy Standards*,¹⁷ EPA instead measured only the impact of the rule on the major automobile manufacturers. EPA had another chance to measure PSD for GHGs in the *GHG Tailoring Rule*,¹⁸ but it again refused, claiming that the Tailoring Rule was a “relief rule” that imposed only benefits, not costs.

III. **Conclusion**

History has shown that with balanced government policies that allow room for ingenuity and innovation, overcoming the greatest environmental challenges is in the realm of the possible while continuing to support a strong, growing economy. However, history has also demonstrated that costly and poorly planned federal regulations can lead to significant economic pain by limiting manufacturers’ competitiveness while harming jobs and prosperity in the process.

The choice between environmental protection and a strong economy is not an either/or proposition. We can have both. Environmental laws and regulations should be updated and designed to ensure they are effective in achieving desired objectives without creating unnecessary adverse economic or social impacts.

Thank you for the opportunity to provide these comments. Please do not hesitate to contact me if the NAM can be of further assistance.

Sincerely,



Ross Eisenberg
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¹⁷ Docket ID No. EPA-HQ-OAR-2009-0472, 75 Fed. Reg. 25,324 (May 7, 2010).

¹⁸ Docket ID No. EPA-HQ-OAR-2009-0517, 75 Fed. Reg. 31,514 (June 3, 2010).