

**Comments on June 11, 2020 EPA Proposal to Codify Benefit-Cost Analysis
Procedures Under the Clean Air Act (EPA-HQ-OAR-2020-00044)**

Before the EPA Chartered Science Advisory Board

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Thank you for the opportunity to address the Science Advisory Board. I am a regulatory consultant specializing in environmental regulatory issues, recently retired from over 40 years of federal government service.

I presented last month on these issues, and one Board member asked me to describe my experience with BCA and EPA in writing. I also offer some specific recommendations for binding BCA guidelines.

I. Binding Legislative Rules Are Appropriate for EPA Clean Air Rulemakings

I have two initial points to make, followed by several specific recommendations regarding the proposed BCA requirements.

1. Several commenters have noted that EPA did not present evidence that it needed binding regulations to improve its implementation of BCA principles. As a participant in the internal EPA rulemaking process over nearly 40 years, I can assure you that I have observed that EPA was frequently subject to political influence that interfered with an objective application of BCA principles. This is not an unfamiliar problem in federal agencies today. EPA could certainly improve its performance and use of BCA through the discipline that would be imposed by mandatory legislative rules, subject to judicial enforcement. This key point is addressed further in more detail below.
2. Several commenters also stated that, under the Clean Air Act, benefits have commonly exceeded costs, sometimes by large margins, and concluded that EPA need not improve BCA practice. Setting aside the criticism that some of these high benefit estimates were highly uncertain, this conclusion overlooks the strong benefit of improving the BCA analyses to more precisely identify the incremental costs and benefits of key elements of rules. This is a common deficiency in regulatory analyses even for cost-beneficial rules. In other words, BCA can be used to more finely develop rules to eliminate costly provisions *within a rule* that provide little or no benefits. Even cost-beneficial rules often have inefficient components that BCA is well designed to address.

I now will address the first point in more detail: EPA needs to improve its BCA analyses. Between 1979 and 2020, with a hiatus of two years, I was an advocate within the US Small Business Administration (SBA) Office of Advocacy. My primary job was to identify small business friendly policies at the US EPA that were consistent with environmental laws and good public policy. We worked closely with the Office of Management and Budget's Office of Information and Regulatory Policy (OIRA). I had a close-up view of the interagency discussions on hundreds of EPA rulemakings (and some Department of Energy and Consumer Product Safety Commission rules). As an active participant in the interagency process, I was involved in reviewing draft proposals

and draft final rules. I have participated in more reviews of EPA rules under the 1980 Regulatory Flexibility Act (RFA)¹ than any other person.

I can provide an inside view, subject to the deliberative process privilege, and shed light on a key question posed by several commenters. What is the value of applying binding BCA principles on EPA decisionmaking? Based on nearly 40 years of experience, I observed that the Agency often strayed from proper application of BCA principles, sometimes due to inattention and lack of time, but often because BCA interfered with policy or political concerns.

In the hundreds of regulatory reviews that I participated in, it was a common occurrence that the agency would try to avoid estimating benefits where benefits were low or nonexistent, or suggest inflated benefits estimates to make proposals look better. I am not surprised that the Agency apparently was reluctant to admit such practices in the proposal preamble. The Agency was also often reluctant to subject regulations to the requirements of the RFA, which imposed additional requirements which could lead to less costly requirements for small businesses, even when the benefits of such proposed requirements were highly questionable. This has been documented in a scores of comments from the US SBA Office of Advocacy.² This reluctance to comply with the RFA is consistent with the reluctance to comply with BCA principles.

I will cite a few examples among many where BCA principles were not being properly applied, supporting the conclusion that judicial enforcement of such principles could mitigate such actions in the future. These examples cover both Republican and Democratic Administrations – political influence is not the domain of a single party. I will leave out some details to protect the deliberative process.

Community Right-to-Know

The Agency had promised environmental groups to expand chemical toxics reporting (Toxics Release Inventory) to additional industrial facilities. EPA had originally planned to use a BCA-based principle that the selected industrial facilities “must provide the optimal mix of chemicals and sources that reach the most significant environmental releases.”³ To justify the proposed 1996 expansion to include chemical distributors, EPA used data from Massachusetts with an obvious mistake (44,000 pounds of air releases from a distribution facility) that exaggerated the total air releases for the entire industry by an order of magnitude. EPA declined to confirm the data with the facility, so my office obtained the correction from the facility in December 1996 and forwarded to EPA. In the end, EPA decided that the quantitative data about releases was not needed to justify the selection of the industry, rejecting its original BCA principle, and

¹ 5 U.S.C. 601 et seq.

² This has been documented in many annual “Reports on the Regulatory Flexibility Act” issued by the Office of Advocacy. See e.g. <https://advocacy.sba.gov/2020/05/19/regulatory-burden-reduced-for-small-businesses-in-fy-2019/>. Seven letters were cited for inadequate analysis of small entity impacts in FY 2019 alone.

³ EPA Issues Paper (May 18, 1992), p. 2.

promulgated the addition of the chemical distributors to the rule, despite the low level of air emissions.⁴

Air Pollution New Source Performance Standard (NSPS)

In one case, EPA acknowledged a cost-effectiveness test that applied to a pending NSPS rulemaking. Then, Advocacy pointed out an error in the calculation that found that the rule would not pass the cost-effectiveness test adopted by the agency in promulgating such rules. EPA promulgated the rule without correcting the error. This was during a Republican Administration.

Effluent Limitation Guidelines

In multiple Effluent Limitation Guidelines (rules governing wastewater water pollution discharges for specific industries), EPA made efforts to inflate the water pollution benefits by employing questionable data that was not representative of the plants being regulated. Over several decades, EPA adopted a test that eliminated additional regulation of industries where the cost/effectiveness measure exceeded a certain benchmark. In one case, EPA insisted that banned pesticides with high toxicity were detected in the sampled data, but we later determined that these test results were invalid by obtaining the underlying test data that EPA had declined to provide. In the 2015 final rule for the steam electric industry ELG, EPA used poor data from the 1970s in lieu of more accurate data from the year 2000 and later with more precise and modern results, which inflated the toxic weighted pollution benefits by roughly a factor of 10. Earlier this month, the Agency reconsidered the 2015 rule and mostly corrected these data and provided regulatory relief to small utility plants. In the 2015 ELG, EPA declined to adhere to its historical practice for using the cost/toxic weighted pound-equivalents for setting its standards and regulated many more small utility units.⁵

I could offer many more examples. This illustrates that policy pressures have existed at EPA over several decades. I think there is little question that BCA practice would improve upon adoption of a binding rule enforceable through judicial review. EPA should adopt a more disciplined approach. Furthermore, you do not need to rely solely on my experience to document EPA's diversions from BCA principles.⁶

⁴ TRI Final Rule for Addition of Industrial Sectors, 62 Fed. Reg. 23834, 23843, 23877 (May 1, 1997) ; “The specific amounts of releases reported were essentially irrelevant; EPA did not project releases, and determine on that basis whether candidate industries met the statutory standard.” Id. at 23877. Given that the central purpose of the Toxics “Release” Inventory is to report releases of some significance to the public, this is a surprising contradiction of the science-based policy announced by EPA in 1992. The disconnect between TRI reporting benefits (releases) and costs created by the apparent lack of a limit on the TRI costs that EPA could impose on industrial facilities that use TRI chemicals, would be contrary to a fair consideration of costs and benefits.

⁵ We note that cost-effectiveness analyses, also known as feasibility analyses, are distinct from benefit-cost analyses, and have been subject to considerable criticism in the literature. While BCA provides superior decisionmaking analysis, CE analyses, which relies on parameters that do not require a quantitative estimate of benefits, have historically been useful in identifying more cost beneficial regulatory options.

⁶ See e.g., Jonathan Masur & Eric A. Posner, Unquantified Benefits and the Problem of Regulation Under Uncertainty, 102 Cornell L. Rev. 87, 101-02 (2016) (and citations therein) (documenting gross non-compliance with

The central question is how does an agency improve administration of BCA principles? Historically, the best method of doing so has been to install agency managers who place a high priority on using evidence-based decisionmaking to enhance societal benefits over short-term political expediency. Those who placed elevated importance on high quality policy making achieved better results. However, the SAB has no role to play in personnel choices of future government leaders. It does, however, have the opportunity to suggest rules that can be judicially enforced that would strengthen the application of sound BCA practices and allow unjustifiable decisions that clearly would harm societal well-being to be challenged.

Commenters question the wisdom of binding legislative rules when the agency could simply follow good practices on its own. My answer is that binding legislative rules are needed to provide additional assurance that BCA practices are followed. I believe that historical practice of EPA warrants binding rules.

Without a legislative rule, there is no opportunity for third parties to seek judicial enforcement of these rules. Similarly, before there was judicial review of RFA determinations under the 1996 Small Business Regulatory Enforcement Fairness Act (SBREFA), there was less incentive for agencies to follow the dictates of the RFA. The justification here is the same. The National Marine Fisheries Services was sued under SBREFA, and, shortly thereafter, substantially improved its RFA analyses. Finally, what harm could possibly emerge from employing the principle: “Do more good than harm”?

There is an additional reason for imposing binding legislative rules subject to judicial enforcement. Benefit-cost analyses, and the subset of risk assessments, are applied science disciplines. As such, these procedures are subject to the requirements of transparency, objectivity, and reproducibility. These areas can be effectively examined in judicial forums. Furthermore, just as scientific analyses are subject to peer review, without judicial review of binding BCA requirements, these benefit-cost analyses and risk assessments would not be subject to any form of peer review. At a minimum, a court could provide a substitute review in lieu of the traditional peer review.

the applicable BCA requirements; through a survey of 106 major rules issued from 2010-2013, finding that only two rules fully quantified costs and benefits, and concluding that “regulatory agencies are regulating in the dark”); Robert W. Hahn, *Regulatory Reform: What Do the Government’s Numbers Tell Us? in Risks, Costs and Lives Saved*, Oxford Univ. Press, New York (1996), at 208, 239 (and citations therein) (comprehensively reviewing major rules issued between 1990-1995 and concluding that the quality of BCAs varied widely from very poor to very good; estimates of net benefits likely are substantially overstated; half the rules would not pass a cost-benefit test; and agencies could dramatically improve the average quality of BCAs by following a few simple guidelines); U.S. Environmental Protection Agency, *EPA’s Use of Cost-Benefit Analysis: 1981-1986*, EPA-230-05-87-028 (Aug. 1987), pp. , S-3, S-4 (documenting successful examples of EPA saving tens of millions to billions of dollars and/or improving protections by using BCA in regulatory decisions, but also documenting many instances where EPA has exercised its discretion to interpret statutory provisions to prohibit or impede the use of BCA).

II. Recommendations for BCA Principles to Follow:

A. Systematic Review for Risk Assessments

I was the SBA interagency team member for the Integrated Risk Information System (IRIS) reviews between 2011 and my retirement early this year. In this role, I became very familiar with IRIS risk assessments and EPA's substantial efforts to address the 2011 National Academy of Sciences (NAS) Formaldehyde Report recommendations to improve systematic review assessments. I observed EPA regularly relying on single low-quality studies for establishing dose-response relationships for chemicals over the past decade in the IRIS program (e.g. TCE, vanadium and ammonia). Systematic review and transparent reporting of the study protocols and study quality evaluations would deter EPA from relying on low quality studies, either entirely, or in part. The Agency should adopt these NAS-related reforms in other agency risk assessments, including those under the Clean Air Act.

I endorse the recommendation that EPA use “modern credible approaches for systematic review, integrated uncertainty analyses and probabilistic risk assessments.”⁷ As part of these requirements, I also agree that EPA should include requirements that include definitions for “unbiased”, “objective”, and “capable of being reproduced.”⁸

B. The Central Decisionmaking Standard Using BCA Analyses

There is substantial literature discussing appropriate BCA principles that could be applied under various environmental statutes.⁹

Based on the case-law and BCA principles, I find no reason not to adopt the standard that the incremental costs of any rule should be justified by the incremental benefits, in other words, the rule should achieve more good than harm, as long as this principle is not contrary to any explicit statutory commands. This is the core decisionmaking standard underlying EO 12866 that has been maintained through four decades of both Republican and Democratic Administrations. Such unanimous support and substantial support in the BCA literature strongly suggests that this is sound public policy. The regulation should also clearly state that this benefit-cost test would supplement, but not supercede, the decision criteria otherwise provided by statute.¹⁰ This formulation also addresses the criticism that BCA analyses should not be the sole determinate of outcome of rulemakings. This talisman makes room for considerations of equity, distributive impacts, predictability, and other factors that also may be addressed in the rulemaking regulatory impact analysis, separate from the BCA.

⁷ See e.g., AF&PA and AWC Comments (August 3, 2020), p. 14.

⁸ Id. at 15.

⁹ See e.g., Paul R. Noe and John D. Graham, *The Ascendancy of the Cost-Benefit State?*, *Administrative Law Review*, ACCORD, Vol. 5, No. 3 (Winter 2020).

¹⁰ This suggested language provides maximum clarity for EPA and is designed to address the case law and should be readily affirmed in future litigation.

Such a standard would not only improve public policy outcomes, it would assure better compliance with longstanding executive orders on BCA. This standard would also reinforce the parallel 2019 public law to advance evidence-based decisionmaking which would dovetail nicely with this BCA principle.¹¹

C. Elements of BCA Analyses

It is very important that EPA improve the quality of its BCA analyses, but the EPA proposed list of requirements, particularly in 83.3(a)(9)(vii) for concentration-response functions and 83.3(a)(9)(viii) for probability distributions, may create the potential for over-analysis not justified by the significance of the regulation. However, in response to this concern for burden, I expect that EPA will may use the open-ended 83.3(b) waiver provision excessively to escape these prescriptive, but sound approaches. I suggest a compromise provision that provides minimum requirements for all BCA analyses, with a waiver for the minimum requirements that could be applied only under very limited circumstances (such as time-sensitive emergencies), and not simply with a “reasoned explanation for departures from best practices.” 40 CFR 83.3(b).

The minimum requirement could be a “reasonable application of systematic review procedures to ensure selection of high quality studies, a reasonable attempt to quantify uncertainty of the costs and benefits including consideration of measurement and model error of the selected studies, and a reasonable attempt to identify the magnitude of the most likely estimate of benefits.”

I thank the SAB for the opportunity to make these comments and am happy to answer any questions it may have.

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¹¹ Public Law No: 115-435 (01/14/2019), *Foundations for Evidence-Based Policymaking Act of 2018*