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## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Ch. I

[EPA-HQ-OA-2018-0107; FRL-XXXX]

**RIN 2010-AA12**

### **Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process**

**AGENCY: Environmental Protection Agency (EPA)**

**ACTION:** Advance notice of proposed rulemaking.

**SUMMARY:** EPA promulgates regulations under authority provided in the federal environmental statutes such as the Clean Air Act (CAA), Clean Water Act (CWA), Safe Drinking Water Act (SDWA), and many others. Most statutory provisions require or allow some consideration of cost and benefits when setting pollution standards, but there is variation in terminology and specificity provided in each law regarding the nature and scope of the cost and benefit considerations. In this advance notice of proposed rulemaking (ANPRM), EPA is soliciting comment on whether and how EPA should promulgate regulations that provide a consistent and transparent interpretation relating to the consideration of weighing costs and benefits in making regulatory decisions in a manner consistent with applicable authorizing statutes. EPA is also soliciting comment on whether and how these regulations, if promulgated, could also prescribe specific analytic approaches to quantifying the costs and benefits of EPA regulations. This ANPRM does not propose any regulatory requirements.

**DATES:** Comments must be received on or before **[INSERT DATE 30 DAYS FROM DATE OR PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** Submit your comments, identified by Docket ID No. **EPA-HQ-OA-2018-0107** at <http://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from *Regulations.gov*. EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is

restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.* on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

**FOR FURTHER INFORMATION CONTACT:** For further information on this document, please contact National Center for Environmental Economics, Office of Policy, 1200 Pennsylvania Avenue NW., Mail Code 1809T, Washington, DC 20460, Phone: (202) xxx-xxxx; [xxx@epa.gov](mailto:xxx@epa.gov).

**SUPPLEMENTARY INFORMATION:** This notice is organized as follows:

- I. Background
- II. Topics for Which EPA Is Seeking Input
  - A. The nature of potential problems of inconsistency and lack of transparency
  - B. Possible approaches for increasing consistency and transparency in considering costs and benefits in the rulemaking process
  - C. Potential for issuing regulations to govern EPA's approach in future rulemakings
- III. Statutory and Executive Order Review

## I. Background

EPA promulgates regulations to protect public health and the environment under authority provided in the federal environmental statutes that it implements, such as the CAA, CWA, SDWA, and many others. The specific authorities given to the Administrator are established in various sections and subsections of each statute, which range from broad authority (e.g., to protect public health with an adequate margin of safety) to detailed requirements that specify standards or require that standards be at least as stringent as the best controlled similar source. In addition to legislative direction, regulatory agencies also take direction from the President and the Office of Management and Budget within the Executive Office of the President regarding what type of formal regulatory evaluation should be performed during rulemaking. For decades, Presidents have issued orders providing instruction to agencies concerning the consideration of benefits and costs in regulatory analysis.<sup>1</sup> Executive Order 12866, *Regulatory Planning and Review*, requires an assessment of benefits and costs for all significant regulatory actions – with benefits and costs expressed in quantitative terms to the extent feasible – and instructs agencies

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<sup>1</sup> This became more formalized in 1981 with Executive Order 12291 which required executive agencies to perform a cost-benefit analysis for all major rules and centralized the regulatory review process by directing the Office of Management and Budget (OMB) to serve as a central clearinghouse for the review of agency regulations.

that, to the extent permitted by law, regulatory actions should have benefits that justify their costs (58 FR 51735, October 4, 1993).<sup>2</sup>

OMB's *Circular A-4*<sup>3</sup> and EPA's *Guidelines for Preparing Economic Analyses*<sup>4</sup> provides the Agency with peer-reviewed guidance on how to conduct the analysis of regulatory actions to comply with E.O. 12866 and other executive orders and statutory requirements (e.g., Small Business Regulatory Enforcement Fairness Act of 1996 considerations). EPA's *Guidelines* establish a scientific framework for analyzing the benefits, costs, and economic impacts of regulations and policies, including assessing the distribution of costs and benefits among various segments of the population. They incorporate recent advances in theoretical and applied work in the field of environmental economics.<sup>5</sup> In this ANPRM, EPA is taking comment on the role that regulatory analysis or aspects of that analysis play in decision making consistent with statutory direction, not what these existing guidance documents recommend about how best to conduct the underlying analysis of regulatory actions.

Most statutory provisions require or allow some consideration of cost and benefits when setting regulatory standards to achieve public health and environmental benefits, but there can be a significant variation in terminology and specificity provided in each law regarding the nature and scope of cost and benefit considerations. For example, Section 301 of the CWA instructs the Administrator to select the “best available technology economically achievable” (33 U.S.C. 1311(b)(2)(A)), and then requires EPA to take into account the cost of achieving effluent reductions when assessing best available technology (33 U.S.C. 1314(b)(2)(B)). Section 111 of the CAA, however, requires the Administrator to set “standards of performance” for reducing air pollution (42 U.S.C. 7411), defined as “the best system of emission reduction which (taking into account the cost of achieving such reduction and any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated” (42 U.S.C. 111(a)(1)). Other provisions may only implicitly direct EPA to consider costs, alone or in conjunction with benefits and other factors, or be silent on whether costs should or may be considered.

Virtually all environmental statutes leave the specifics on *how* costs and benefits are to be considered to EPA. The Agency interprets the terms used in the relevant statute and decides how best to weigh costs against benefits and other factors in making regulatory decisions. A few statutory provisions require that specific metrics (e.g., particular price changes) be included among the “costs” to be considered (see e.g., Federal Insecticide, Fungicide, and Rodenticide Act

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<sup>2</sup> Over the past decade, the estimated costs and benefits resulting from EPA regulations have been the highest within the federal government. See Table 1-1 of the Office of Information and Regulatory Affairs' (OIRA) 2017 Draft Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with Unfunded Mandates Reform Act.

<sup>3</sup> <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A4/a-4.pdf>

<sup>4</sup> <https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses>

<sup>5</sup> All chapters undergo an external peer review prior to finalization, either through the EPA's Science Advisory Board Environmental Economics Advisory Committee or through independent reviews by external experts. OMB's Circular A4 also underwent extensive review before being finalized. *Circular A-4* was subject to public comment, interagency review and external expert peer review.

(FIFRA), 7 U.S.C. 6(b))<sup>6</sup>, but in most provisions “costs”, “economic factors”, and similar terms remain undefined and are included as one item of unspecified weight among a list of multiple factors that EPA is required to consider (e.g., CWA, 33 U.S.C. 304(b)(2)(B); CWA, 33 U.S.C. 1314(b)(2)(B); CAA, 42 U.S.C. 111(b)(1)(B) and 42 U.S.C. 111(a)(1)<sup>7</sup>). Even when Congress does include statutory language to indicate how EPA should weigh cost considerations against benefits and other relevant factors, there is considerable variation in the language used and the statutory instruction provides little, if any, direction on what constitutes “appropriate consideration”, “reasonableness”, “practicable”, “achievable”, a “feasible” threshold, and related terms.

This has resulted in a variety of concepts of ‘costs’ that may be considered across statutes and even under the same statute. These concepts include many different metrics that estimate financial impacts to the regulated entity, e.g., direct costs for compliance activities incurred by a regulated entity, compliance cost per ton of pollutant reduced, the number of regulated facilities that may go out of business as a result of the proposed regulation, or compliance cost as a percent of firm revenues. EPA’s Regulatory Impact Analyses (RIAs), as guided by its *Economic Guidelines*, typically also quantify the standard economic measure of cost used in benefit-cost analysis –i.e., the broader concept of the “social cost” of the regulation (the sum of all opportunity costs incurred as a result of a regulation) – and ultimately reach an estimate of “net benefits” (social benefits minus social costs).

For many of EPA’s regulatory programs, the courts have weighed in on the scope of costs to be considered during the development of a regulation. For example, in *Michigan v. EPA*, 135 S. Ct. 2699, 192 L.Ed.2d 674 (2015), the Supreme Court held that EPA is required to consider costs when determining whether it is “appropriate and necessary” to regulate power plants under CAA section 112 (42 U.S.C. 7412(n)(1)(A)), and indicated that “cost” can extend well beyond financial outlays by regulated entities to include all of the negative repercussions of this action, whether economic or otherwise (135 S. Ct. at 2707). Many court rulings acknowledge the discretion provided to the agency in how relevant factors are measured and weighed. For example, in 2009, the US Supreme Court ruled in *Entergy Corporation et al. v. Riverkeeper, Inc.*

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<sup>6</sup> FIFRA section 6(b) elaborates on the costs to be taken into account in cancellation of agricultural pesticide registrations by making clear that “the Administrator shall include among those factors to be taken into account the impact of the action proposed in such notice *on production and prices of agricultural commodities, retail food prices, and otherwise on the agricultural economy.*” (Emphasis added.)

<sup>7</sup> CWA Section 304(b)(2)(B), 33 U.S.C. § 1314(b)(2)(B), states that “Factors relating to the assessment of best available technology shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, *the cost of achieving* such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate.” (Emphasis added.) CAA Section 111(b)(1)(B), 42 U.S.C. § 7411(b)(1)(B), requires EPA to set standards of performance for certain categories of new stationary sources, where Section 111(a)(1), *id.* § 7411(a)(1), defines “standard of performance” as “a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (*taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements*) the Administrator determines has been adequately demonstrated.” (Emphasis added.)

that EPA may use cost-benefit analysis in setting standards and issuing permits under Section 316(b) of the CWA.

Many technical and practical factors play a role in how EPA implements statutory instruction related to cost considerations in regulatory decisions. Any assessment of costs (and benefits) is limited by the state of scientific and economic modeling, quantification methods, and available data – all of which change over time and across industries and sectors of the economy. Similarly, statutory authority to collect information from regulated industries varies, and in some cases EPA may choose not to exercise that authority in order to reduce the costs of data collection to the regulated entity (relying instead on voluntary provision of information or publicly-available data, or simply doing without data where the burden appears to outweigh the data's anticipated utility). In these instances, EPA may be limited in what cost metrics can be used for a specific regulatory decision and may not be able to use identical cost considerations across rules. A lack of data and a lack of a regular process for ongoing or retrospective review after rules have been implemented<sup>8</sup> also inhibits EPA's ability to gain insights about the realized costs and benefits of actions that may help inform how it considers costs and other factors in future rulemakings. Finally, industry or sector specific factors may play a role, as some metrics may be more or less relevant to the affected industries, sectors, or question at hand. For example, potential plant closures is a metric sometimes used to measure a potential impact and inform stakeholders about regulatory actions on some industries (e.g., manufacturing industries dominated by privately-owned businesses), but this may not be an appropriate or viable measure of a potential financial impact for other types of regulated entities (e.g., some wastewater treatment plants, or electric power plants that are not otherwise economical must still operate to ensure adequate reliability of the system).

EPA regularly receives much public comment related to how costs and benefits are considered in decision making. On April 13, 2017, in accordance with Executive Order 13777, "Enforcing the Regulatory Reform Agenda," EPA issued a request for comment on regulations that may be appropriate for repeal, replacement, or modification.<sup>9</sup> While that solicitation was broad in scope and generated comments on a myriad of regulatory reform issues, one common theme in many industry comments related to how the Agency considers cost in developing its regulations. For example, some commenters argued that the approach of considering compliance cost divided by the total emission reductions (i.e., summing across pollutants) resulted in controls that appear cost-effective that may not have been deemed cost-effective if each pollutant was considered separately. Such a situation arose in in consideration of the best system of emissions reductions (BSER) for the Oil and Natural Gas NSPS (81 FR 35823, June 3, 2016). Other commenters

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<sup>8</sup> Many previous administrations have periodically undertaken programs of retrospective review or issued executive orders urging agencies to reassess existing regulations and eliminate, modify, or strengthen those regulations that have become outmoded in light of changed circumstances. Agencies are also subject to some limited regulatory lookback requirements mandated by statute, but for the most part retrospective review has not become institutionalized practice within EPA nor other regulatory agencies as has prospective review (such as ex ante benefit-cost analysis conducted under Executive Order 12866).

<sup>9</sup> See Federal Register notice: Evaluation of Existing Regulations (82 FR 17793). The comment period closed on May 15, 2017 and EPA received over 460,000 comments. All public comments are accessible online in our docket on the Regulations.gov website identified by Docket ID No. EPA-HQ-OA-2017-0190.

argued in past rulemakings the Agency has justified the stringency of a standard based on the estimated benefits from reductions in pollutants not directly regulated by the action (i.e., “ancillary benefits” or “co-benefits”).<sup>10</sup> For example, in the Mercury and Air Toxics Standards (MATS) rule (77 FR 9304, February 16, 2012), the monetized benefits from one of the pollutants being directly regulated (i.e., mercury) were significantly lower than the estimated costs of the rule, and the quantified benefits in the regulatory impact analysis outweighed the costs because of the benefits from reductions in ambient fine particulate matter (82 FR 16736, April 6, 2017). Similar criticisms have been made regarding the extent to which EPA has considered key uncertainties, baseline assumptions, and other analytical factors in quantifying both benefits and costs relevant to decision making.

The purpose of this ANPRM is to request more information about the nature and extent of issues raised by stakeholders regarding EPA practices in considering costs and benefits in the rulemaking process, and to solicit comment on potential approaches that would provide improved consistency and transparency. EPA specifically seeks comment on whether, and if so, how EPA should promulgate regulations that specify how the Agency will approach its consideration of costs and benefits in setting pollution standards, consistent with statutory direction.

## II. Topics for Which EPA Is Seeking Input

EPA is requesting comments regarding perceived inconsistency and lack of transparency in how the Agency considers costs and benefits in rulemaking, potential approaches for addressing these concerns, and the scope for issuing regulations to govern EPA’s approach in future rulemakings. Questions pertaining to each of these topics are provided below. EPA invites comments on all aspects of this ANPRM. Comments should provide enough detail and contain sufficient supporting information (e.g., citations to published studies and or data related to your comments) in order for the Agency to understand the issues raised and give them the fullest consideration.

### A. The nature of potential concerns regarding perceived inconsistency and lack of transparency

EPA requests more information about the nature and extent of the concerns relating to possible inconsistency and lack of transparency in considering costs and benefits in the rulemaking

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<sup>10</sup> OMB Circular A-4 defines ancillary benefit as “a favorable impact of the rule that is typically unrelated or secondary to the statutory purpose of the rulemaking (e.g., reduced refinery emissions due to more stringent fuel economy standards for light trucks) while a countervailing risk is an adverse economic, health, safety, or environmental consequence that occurs due to a rule and is not already accounted for in the direct cost of the rule (e.g., adverse safety impacts from more stringent fuel-economy standards for light trucks). You should begin by considering and perhaps listing the possible ancillary benefits and countervailing risks.... Analytic priority should be given to those ancillary benefits and countervailing risks that are important enough to potentially change the rank ordering of the main alternatives in the analysis. In some cases the mere consideration of these secondary effects may help in the generation of a superior regulatory alternative with strong ancillary benefits and fewer countervailing risks....Like other benefits and costs, an effort should be made to quantify and monetize ancillary benefits and countervailing risks.” (OMB 2003).

process. The most helpful comments would provide specific examples with context and specify relevant statutory provisions. What impact could greater consistency or transparency have on regulated entities, states, tribes, and localities, and the public?

B. Potential approaches for increasing consistency and transparency in considering costs and benefits in the rulemaking process

EPA requests comment on approaches for increasing consistency and transparency when and how EPA considers cost and benefits in setting pollution standards, consistent with statutory direction.

1. What would increased consistency look like?
  - a. Given statutory constraints, how could EPA more consistently adhere to existing guidance on benefit-cost analysis principles, definitions and analytical techniques whether across the entire agency or specific programs? For example, to what extent, if any, should EPA develop a regulatory action that commits the Agency to following its existing peer-reviewed guidance documents on risk assessment<sup>11</sup> and *Guidelines for Preparing Economic Analysis*<sup>12</sup> when developing future rulemakings?
  - b. Should EPA consider adopting uniform definitions of specific terms used in statutes – e.g., “cost,” “benefit,” “economic factors,” “reasonable,” “appropriate,” and “weight of scientific evidence” - and specifying ex ante how they will be factored into subsequent regulatory decisions?” How should EPA approach the scope of the uniformity of these definitions (e.g., within a particular regulatory program; within statute; across statutes)?
  - c. To what extent should standard benefit-cost analysis principles (e.g., setting a standard to maximize net benefits) guide the selection of specific statutorily required metrics and thresholds (e.g., “reasonableness”) against which to measure the effects of a proposed regulation?
  - d. What improvements would result from a general rule that specifies how the Agency will factor the outcomes or key elements of the benefit-cost analysis into future decision making? For example, to what extent should EPA develop a general rule on how the Agency will weigh the benefits from reductions in pollutants that were not directly regulated (often called “co-benefits” or “ancillary benefits”) or how it will weigh key analytical issues (e.g., uncertainty, baseline assumptions, limited environmental modeling, treatment of regulating multiple pollutants within one regulatory action) when deciding the stringency of future regulations? In addition, frequently scientific understanding is not adequate either to quantify or to monetize the effects of some pollutants or other impacts. How

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<sup>11</sup> <https://www.epa.gov/risk/risk-assessment-guidelines>

<sup>12</sup> <https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses>.

should these potentially important but non-quantified and/or non-monetized effects be included in decision making?

- e. To what extent would it be helpful for EPA to require consideration of cumulative regulatory costs and benefits of multiple regulations during the rulemaking process, including how such consideration may affect the design or implementation of a regulation (i.e., longer or different compliance timeframes)?
2. What would improved transparency look like?
    - a. How might the documentation of how EPA considered costs and benefits in a regulatory decision be improved from current practices?
    - b. In what ways can EPA increase transparency about the decision-making process in cases where the decision was based on information that is barred from release by law?
  3. To what extent would requiring a systematic retrospective review element in new regulations help to provide ongoing consistency and transparency in how regulatory decision making will adapt over time to new information? Such a requirement might provide a more regular and systematic approach to ex-post (i.e. after regulations have been promulgated and become effective) evaluation of the costs and benefits of EPA regulations, as compared with the periodic regulatory reviews the EPA has historically conducted.<sup>13</sup> This might help identify needed revisions, inform future regulatory approaches, and improve methods of ex ante analysis.
    - a. What are the opportunities and challenges associated with issuing regulations to require retrospective analysis and the concomitant need to collect data in order to conduct a meaningful retrospective analysis? Would it be more challenging under some provisions of key environmental statutes? If so, which ones?
    - b. What criteria should EPA use to determine when retrospective review is needed? For example, should selection criteria be tied to the estimated impacts of the regulation, the degree of uncertainty at the time of ex ante analysis, the extent to which retrospective analysis will be feasible/successful?
    - c. How specific should prospective plans for such a review be? For example, should plans specify the methodology that will be used, the coverage or scope of the analysis, the data that will be used and data collection plans?

C. Potential for issuing regulations to govern EPA's approach in future rulemakings

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<sup>13</sup> It would also supplement existing statutory requirements for periodic review of the adequacy of standards or guidelines (e.g., CAA 42 U.S.C. §109(d)(1); CWA 33 U.S.C. §304(b)).

EPA requests comment on opportunities and challenges associated with promulgating regulations to govern EPA's approach to cost and benefit considerations in future rulemakings. EPA is soliciting comment on whether and how best to develop such regulations.

1. What are the most pressing economic or legal considerations that should be taken into account when deciding the appropriate level of specificity (all activities, by statute, by specific statutory provision) at which to formulate regulations?
2. What are the opportunities and challenges with issuing regulations to govern EPA's practice when statutory provisions do not mention costs or imply these are factors to be considered alongside benefits and other factors when setting pollution standards?
3. How can EPA best promote more consistency and predictability while still leaving room for consideration of regulatory context and for flexibility to adapt to new information and methodological advances?
4. In cases where current EPA practice reflects prior judicial decisions, a change in course may come with significant burden to the Agency. Is there a way to address this concern in regulations governing the consideration of costs and benefits?
5. Are there ways to improve consistency and transparency using methods other than a regulatory approach (e.g., additional guidance)? What are the opportunities and challenges associated with these approaches?
6. Are any of the opportunities and challenges identified above specific to a particular statute or statutes? If so, please provide examples.

### III. Statutory and Executive Order Reviews

Under Executive Order 12866, entitled *Regulatory Planning and Review* (58 FR 51735, October 4, 1993), this is a "significant regulatory action" because the action raises novel legal or policy issues. Accordingly, EPA has submitted this action to the Office of Management and Budget (OMB) for review under Executive Order 12866 and any changes made in response to OMB recommendations have been documented in the docket for this action. Because this action does not propose or impose any requirements, and instead seeks comments and suggestions for the agency to consider in possibly developing a subsequent proposed rule, the various statutes and Executive Orders that normally apply to rulemaking do not apply in this case. Should EPA subsequently determine to pursue a rulemaking, EPA will address the statutes and Executive Orders as applicable to that rulemaking.

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Dated:

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E. Scott Pruitt,  
Administrator.