

**COMMENTS BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
REGARDING THE ADVANCE NOTICE OF PROPOSED RULEMAKING: INCREASING  
CONSISTENCY AND TRANSPARENCY IN CONSIDERING COSTS AND BENEFITS IN  
THE RULEMAKING PROCESS; EPA DOCKET ID NO. EPA-HQ-OA-2018-0107**

## **I. Summary of Notice**

On June 13, 2018, the United States Environmental Protection Agency (EPA) issued an advance notice of proposed rulemaking (ANPR) to take comment on various issues related to the EPA's consistency and transparency when considering costs and benefits in the rulemaking process. The EPA also solicited comment on whether and how the EPA should promulgate regulation to provide a consistent and transparent interpretation during the consideration of costs and benefits when making regulatory decisions.

## **II. Comments**

**1. The Texas Commission on Environmental Quality (TCEQ) supports the EPA's efforts at increasing consistency and transparency in how the EPA considers costs and benefits in the rulemaking process. If the EPA decides to implement this process through guidance rather than rulemaking, then the public should still be given an opportunity to comment on the guidance before it is finalized.**

The TCEQ supports improving consistency and transparency in how the EPA considers costs and benefits in the rulemaking process. The impact of environmental regulation on the daily lives of Americans is extensive. This impact warrants careful and measured consideration by the EPA for both regulatory costs and benefits for all Americans. Not only is a consistent and transparent approach necessary to ensure that the EPA is appropriately considering costs and benefits when exercising its regulatory authority, but it is also required to allow for proper public comment on regulatory actions.

The TCEQ takes no position as to whether such improvements should be implemented through promulgating regulations, guidance, or other means. However, should the EPA decide to initiate rulemaking and such rulemaking includes exceptions then the TCEQ suggests the EPA clearly specify those exceptions and the accompanying criteria that would be required to grant such an exception. Regardless of the mechanism the EPA chooses for implementation, the public should be given the opportunity to comment on the EPA's improvement efforts regarding the consideration of costs and benefits during rulemaking. Additionally, given the expected complexity of such a rule or guidance, additional time will be needed for review and comment, and the TCEQ suggests a minimum of 60 days for the comment period. Finally, because the Regulatory Impact Analysis (RIA) is the final implementation of any changes to the cost and benefits methods, the TCEQ recommends that the EPA allow the opportunity to review and comment on RIAs for all major rules.

**2. There are numerous examples of inconsistency and lack of transparency in how the EPA determines and considers costs and benefits in the regulatory process.**

The EPA requested comment on the nature and extent of issues regarding the EPA's practices in considering costs and benefits in the regulatory process. The TCEQ has commented numerous times on past EPA regulatory initiatives concerning the EPA's consideration of costs and benefits. The following are summaries of comments related to costs and benefits that the TCEQ has made on selected EPA regulatory initiatives, including the EPA Docket ID numbers so that the EPA can review the more detailed comments submitted in full.

- TCEQ Comments on the Mercury and Air Toxics Standards (MATS) rule; EPA Docket ID No. EPA-HQ-OAR-2009-0234
  - The total cost of MATS was only provided as annualized costs. Total capital costs and annual operating costs were not provided. (page 3)
  - The benefits of hazardous air pollutant (HAP) emission reductions were far less than the costs of MATS. EPA relied on co-benefit reductions in particulate matter to increase the benefits in the cost-benefit analysis of MATS. (page 3)
- TCEQ Comments on the Clean Power Plan (CPP) rule; EPA Docket ID No. EPA-HQ-OAR-2013-0602
  - The EPA overstated the climate benefits from the CPP rule and the costs from 2020 through 2030 far exceed the benefits. (Comment A.4., page 6)
  - The EPA should not claim co-benefits from reductions in other pollutants such as sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides. (Comment A.4, page 6)
  - The cost impact to consumers from the enhanced energy efficiency programs assumed by the EPA in the proposed CPP rule was misrepresented in the EPA's Regulatory Impact Analysis (RIA). (Comment A.5., page 8)
  - The EPA's cost information in the CPP rule Regulatory Impact Analysis (RIA) was inconsistent and misrepresentative. The EPA represented the same cost information as total costs, annual incremental costs, and annualized costs in different sections on the RIA. (Comment A.6., page 9)
  - The EPA made misrepresentative claims in the Regulatory Flexibility Act analysis that the CPP rule would not have a significant economic impact on small businesses and was inconsistent with the EPA's own assumption that half of the costs for enhanced energy efficiency programs would fall on electricity consumers, more than \$15 billion per year starting in 2020. (Comment A.7., page 10)
  - The EPA underestimated the cost impact to state agencies for implementing the state plan requirements of the CPP rule. (Comments A.8. and H.4., pages 10 and 34)
- TCEQ Comments on EPA Region 6 Federal Implementation Plan (FIP) for Texas Regional Haze Reasonable Progress; EPA Docket ID No. EPA-R06-OAR-2014-0754

TCEQ Comments on Advance Notice of Proposed Rulemaking: Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process; EPA Docket ID No. EPA-HQ-OA-2018-0107

- The EPA arbitrarily rejected the \$2,700 per ton threshold used in the state implementation plan (SIP) based on an unsubstantiated decision that the threshold was “too low” even though the value was equivalent to that used in the EPA’s own Clean Air Interstate Rule (CAIR). (Comment G.2., page 11)
  - The EPA’s cost-benefit analysis in the Regional Haze Reasonable Progress FIP was flawed. The total estimated capital costs of the FIP were estimated to be approximately \$2 billion, yet the EPA’s own analysis showed that any visibility improvement resulting from the controls would not be perceptible to the human eye. (Comments A.2., G.4. and J.3., pages 3, 11, and 17)
  - The EPA’s cost analysis was inadequate and relied on information that the EPA withheld from the public during the comment period. The EPA provided a dollar per ton value for the scrubber upgrades controls in the FIP but withheld nearly all information on how that estimate was determined because the companies claimed the information as confidential. (Comment J.3., page 17)
- TCEQ Comments on EPA Region 6 FIP for Texas Regional Haze Best Available Retrofit Technology; EPA Docket ID No. EPA-R06-OAR-2016-0611
    - The EPA ruled out a lower cost control technology, dry sorbent injection (DSI), for some of the coal-fired power plants subject to the FIP in favor of the highest cost SO<sub>2</sub> control technology evaluated. (page 10)
    - The EPA improperly assumed 30 years remaining useful life in calculating cost effectiveness for emission controls when the actual remaining useful life of the units affected by the FIP was expected to be much less based on average life-spans of coal-fired power plants using United States Energy Information Administration data, which substantially biased the EPA’s dollar per ton estimates of certain control technology. (pages 10 - 12)
    - The EPA claimed its cost-effectiveness estimates relied upon in the FIP were within a range that the EPA had previously found to be acceptable. However, the EPA did not provide the actual range of acceptable cost-effectiveness being used or the source of this range. (page 14)
- TCEQ Comments on Information Collection Request, Eight-Hour Ozone National Ambient Air Quality Standard Implementation Rule; EPA Docket ID No. EPA-HQ-OAR-2003-0079
    - The EPA underestimated the costs to state agencies to implement state implementation plan activities associated with the implementation rule. (pages 1-3)
- TCEQ Comments on EPA Guidance on Progress Tracking Metrics, Long-Term Strategies, Reasonable Progress Goals, and other Requirements for Regional Haze State Implementation Plans for the Second Planning Period; EPA Docket ID No. EPA-HQ-OAR-2016-0289
    - The EPA guidance for the Regional Haze Rule would effectively require states to impose control measures solely for the sake of imposing controls

TCEQ Comments on Advance Notice of Proposed Rulemaking: Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process; EPA Docket ID No. EPA-HQ-OA-2018-0107

- regardless of whether any visibility benefits would result from those control measures. (Comment B.1. and B.3., pages 1 - 4)
  - The EPA's guidance attempts to dissuade states from considering visibility benefits when evaluating control measures. The EPA created a "no bright-line" policy for evaluating control measures and visibility benefits for regional haze purposes without justification. (Comment B.2., page 2)
  - The EPA's guidance relies too heavily on cost per ton and disregards other cost factors. (Comments B.4., B.6., and B.7., pages 4 - 6)
- TCEQ Comments on National Emission Standards for Hazardous Air Pollutants (NESHAP) for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters; EPA Docket ID No. EPA-HQ-OAR-2002-0058
  - The EPA's proposed NESHAP for boilers and process heaters at major sources would require the delegated authority to review and approve emissions averaging plans. However, the EPA did not perform any analysis for the costs to state agencies that receive delegation of the regulation to perform the required review of these plans. (pages 4 - 5)
- TCEQ Comments on Proposed National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule; EPA Docket ID No. EPA-HQ-OECA-2009-0274
  - Preamble, Section I(A)(3) - (Cost and Benefits) - The cost to permittees to become compliant with the e-Reporting requirement within the first year is shown as \$17,570,000 in the table. It is suggested that the EPA provide clarification on the cost to permittees. For example, a small business which may not have the resources to implement and train personnel on using e-Reporting tools may have higher costs than larger businesses. Likewise, permittees located in smaller communities that rely on dial-up internet could face a greater increase in the cost to travel to locations that have publicly available computers connected to broadband internet. In addition, once the e-Reporting tools have been developed, training/outreach for the regulated community on the use of these reporting tools will be needed. It is unclear whether or not the cost analysis includes these associated costs. The preamble states "The proposed rule will also lighten the reporting burden currently placed on the states." For many delegated programs, the new e-Reporting requirements will add a new aspect to program implementation - increased data management. Rather than decreasing the delegated programs' reporting burden, the e-Reporting requirements may result in a corresponding shift in manpower and funding from traditional program implementation and compliance. Additionally, if all correspondence, documents, and reports between permittees and delegated programs must now be electronically reported to the EPA, there is concern this may increase the state workload of ensuring data quality in the federal database.
- TCEQ Comments on the Proposed Rule "National Pollutant Discharge Elimination System-Cooling Water Intake Structures at Existing Facilities and Phase I Facilities"; Docket ID No. EPA-HQ-OW-2008-0667

TCEQ Comments on Advance Notice of Proposed Rulemaking: Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process; EPA Docket ID No. EPA-HQ-OA-2018-0107

- The threshold requirement of 2 million gallons per day (MGD) is too low and would create significant administrative burden and cost for permitting authorities - The TCEQ has significant concerns related to the permit application and supporting information requirements in proposed 40 Code of Federal Regulations (CFR) § 125.95. As proposed, the EPA has established specific deadlines for submittal of information based on facility specific characteristics and thresholds that are tied to the effective date of the rules (e.g. within one year of the effective date of the rules, etc.). Based on the new applicability threshold proposed by the EPA during this rulemaking of intake structures greater than 2 MGD, in place of the vacated threshold of 50 MGD, The TCEQ anticipates a significant burden being placed on permitting staff to review this information while continuing to have the necessary resources to run the TPDES program. The TCEQ believes the EPA has significantly underestimated the administrative costs and other impacts permitting authorities will incur by the EPA's applying 316(b) requirements at the reduced threshold of 2 MGD. The TCEQ strongly suggests removing the deadlines established in 40 CFR § 125.95 and instead require facilities to submit the information at the time the permit application is submitted.
- TCEQ Comments on Proposed Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category; EPA Docket ID No. EPA-HQ-OW-2009-0819
  - The preamble to this rulemaking indicates that there is no impact to permitting authorities (including the Paperwork Reduction Act and Federalism) based on these revised guidelines. By inclusion of the Anti-Circumvention provision there will be a substantial increase in effort to permit steam electric stations. Many new outfalls and requirements will have to be established in permits, including development of rationale for new limits, etc. All of these new outfalls will require additional testing and record keeping of this new data, including data in permit applications and discharge monitoring reports (DMRs). If the impoundment Best Management Practices and other associated requirements are included in the adopted rule, that would establish a significant increase in workload related to review of plans and specs, annual certifications, etc. The TCEQ does not concur with the EPA's finding of no impact to permitting authorities and believes the preamble should be revised accordingly.

**3. The EPA must begin providing complete and clear information on how the costs and benefits of regulations are determined if the EPA wants to meaningfully improve transparency in how it considers costs and benefits.**

The methodology used to determine the costs and benefits of regulation is the most fundamental aspect of any cost-benefit analysis, and it is in this regard that the EPA's lack of transparency has been the most egregious. The EPA has routinely provided only total annualized costs for regulations without providing the corresponding total

capital costs, annual operating and maintenance costs, or even explaining how those costs were annualized. In other cases, the EPA has only provided estimates of cost effectiveness in dollars per ton of pollutant reduced without providing the details of how the cost effectiveness value was calculated. When estimating costs and benefits of a proposed action, the EPA should consistently identify the source of the underlying data, describe the full details of the calculation methodology, and justify any assumptions or projections involved in the determination.

The EPA should always provide total capital costs and annual costs, such as maintenance, operating, testing, and monitoring, in addition to annualized cost estimates. The total capital costs of a regulation, as a sum total and not annualized, is a critical metric in evaluating the impact of that regulation on a particular area, state, or the nation as a whole. Furthermore, annualized costs should be clearly explained, including the duration that costs have been annualized. As noted in TCEQ Comment2., the EPA has in some cases used excessively long periods in annualizing costs. This biases the annualized costs low for some controls and artificially makes the regulation appear more cost effective. In other cases, the EPA does not provide any information on the duration that costs are annualized. While the appropriate duration for annualizing costs can vary depending on the specifics of the situation, the duration and a justification for its use should be provided in all regulatory actions so the public can properly comment on the EPA's assumptions when annualizing costs.

The EPA has historically used its Integrated Planning Model (IPM) to estimate cost impacts of regulations on the electric utility generating sector. Models such as IPM can be useful tools in assessing economic impacts. However, the EPA's use of IPM is not transparent. While the EPA makes inputs into the model available, the algorithms and how the various factors are weighted by IPM in determining the results are unknown because the model is proprietary. For example, in numerous instances in the past, IPM has projected specific power plant units would shut down as a result of a regulation based on such internal model projections which affects the total cost projections of the model. While these projected shutdowns are presumably based on modeled economics, exactly how IPM arrives at a decision that those particular units will shut down while others remain open is unknown and also questionable. Yet, the EPA relies on IPM almost exclusively for cost analyses on any nationwide major rulemaking. Additionally, IPM appears to only present annualized costs and not true total capital costs and annual operating costs (Documentation for EPA's Power Sector Modeling Platform v6 Using the Integrated Planning Model, May 2018, page 2-7). Unless the EPA is prepared to make all aspects of IPM publicly available, which may not be legally possible for the EPA as IPM is a proprietary product of ICF, Inc., the EPA should scale back its reliance on IPM for determining costs of regulations on the electric utility generating sector and only use IPM as a secondary approach for determining costs.

Furthermore, the EPA has also monetized "unknown" or "unidentified" controls (e.g., technology that does not currently exist) in the cost estimates for rules such as the 2015 primary ozone National Ambient Air Quality Standard (NAAQS). In the 2015 ozone RIA, the EPA assumed that the cost for all unknown/unidentified controls was the same (\$17,000/ton), regardless of considerations such as whether the local or state government has already instituted abatement measures, the location's attainment

status, or the industrial composition. The EPA should better justify its decision to monetize the costs of controls that don't currently exist, and should also consider how realistic it is to assume that continued reduction of any pollutant would have a fixed price tag.

Similarly, the EPA should provide a comprehensive description of its benefits calculation methods in every cost-benefit analysis. For example, the EPA employed the benefits-per-ton approach to quantify benefits in numerous RIAs within the last nine years. However, rather than fully describing the method in the accompanying RIA or a single Technical Support Document, the EPA provided generalized statements, some of which were out of sequential order, and referenced secondary sources, mostly other RIAs, rather than primary sources. The EPA also failed to provide the final benefit-per-ton dollar amount used in the final calculation of benefits, making it difficult to understand the impact of each decision made in the overall analysis and impossible to compare the implementation of the calculation method across different rules.

The EPA should also provide justification for the representativeness of its modeling strategies. In order to obtain the necessary data for benefits models, the EPA often uses National Emission Inventory data that can have a lag of several years. Particularly in instances where ambient pollutant concentrations have been dramatically reduced after the model years, the modeling strategy may no longer be relevant to current conditions. In instances where only a certain number of "study areas" are modeled in the country, the EPA should fully justify and account for any instances in which the model is not representative of un-modeled areas.

Finally, the EPA should provide some representation of the uncertainty, through the use of confidence intervals or some similar metric, in their final benefits estimate. Any analysis that builds upon several underlying analyses [e.g., concentration-response (C-R) functions from epidemiology studies, air pollutant emissions data, census data, etc.] will accumulate the uncertainties of all of the underlying analyses. Therefore, it is important to incorporate some quantification of those uncertainties into final benefits estimates.

#### **4. The EPA needs to better quantify and take into consideration the total costs to state and local agencies.**

As noted in TCEQ Comment 2., the EPA has in previous regulatory actions either failed to account for or significantly underestimated costs to state agencies from regulations. In some cases, the EPA does not even attempt to quantify the impacts to state and local governments and merely assumes that its regulatory actions have no or minimal burden to the state and local agencies that ultimately implement those regulations. The EPA should work with state and local agencies prior to proposing regulations to identify impacts and costs, and develop alternatives to minimize costs to those agencies.

**5. Stranded costs may need to be taken into consideration in some circumstances, such as regulatory actions where the EPA expects that facilities will cease operations rather than incur the costs of compliance with the regulation.**

The EPA has adopted various regulations where facilities were expected to cease operations instead of incur the cost of installing pollution control equipment or other costs associated with compliance with the rule. This is particularly true with the electric utility generating sector. The EPA's IPM results have projected retirements of units from regulations such as MATS and the CPP rule. Yet, historically, the EPA has not factored in the stranded costs associated with these shutdowns in the costs of the regulation. It may not be appropriate to consider stranded costs in all situations. However, in cases where the regulation is expected to result in facilities shutting down and the EPA has excluded the costs of compliance for these facilities from the total costs then the EPA should account for the stranded costs that the owner of the facility may not be able to recover as a result of the regulation.

**6. The EPA should only consider domestic costs and benefits during regulatory actions unless there is specific congressional authorization to consider international impacts.**

As the TCEQ commented on the CPP rule, the EPA improperly compared domestic costs to global climate benefits. The EPA should only consider domestic costs and benefits from a proposed regulation. An international economic impact from a regulation should only be factored into the cost-benefit analysis if the impact translates to an impact domestically. Most aspects of the EPA's legal authority for rulemaking (e.g., the Federal Clean Air Act, the Clean Water Act, etc.) are tied to environmental issues in the United States of America and its territories. The EPA should limit its consideration of costs and benefits to the jurisdiction for which it has legal authority unless there is a specific authorization by Congress to consider international costs and benefits.

**7. The EPA should consider establishing a requirement or policy that extended comment periods will be provided on substantial or wide-reaching regulatory actions with significant costs or benefits to allow for more meaningful review of the EPA's determination and evaluation of those costs and benefits. The EPA should establish deadlines for either approving or denying extension requests.**

Reviewing the technical information for cost and benefit analyses can require substantial time and research. For regulations with substantial or complex costs or benefits, a 30-day comment period, and sometimes even a 60-day comment period, is not adequate to allow for a meaningful review and comment on the EPA's estimates for cost and benefits. Therefore, the TCEQ suggests that the EPA establish a regulatory requirement or policy that require a minimum comment period of at least 90 days for proposed regulations with significant costs or highly complex or novel cost or benefit estimation approaches.



Furthermore, while the EPA does occasionally grant extensions to regulatory comment periods, such extensions are not usually issued until shortly before the comment period deadline. A substantial amount of time is required for just drafting comments. The proposed regulation and relevant supporting documents must be reviewed and research and analysis must be performed to determine the impact. In addition to the time required to draft comments, particularly for state agencies, the draft comments must undergo review. Draft comments on an EPA action must normally be completed weeks prior to the comment submittal deadline. This results in rushed reviews and lost time even if the EPA ultimately grants the extension. Therefore, the TCEQ suggests that when the EPA receives extension request within the first week of a regulation publishing in the *Federal Register* the EPA should issue a determination approving or denying that request no later than two weeks prior to the close of the comment period. If the EPA decides to deny such a request but receives additional requests for extension after the initial week then the EPA can always reconsider whether an extension should be granted.

**8. The TCEQ supports the removal of co-benefits calculations in RIAs, as those benefits are achieved in other rules.**

The EPA solicited feedback on whether co-benefits should be considered in the benefits calculations of RIAs. Monetized co-benefits can be substantial. For example, monetized co-benefits comprised between 38 to 63 percent (or between \$6.7 and 18 billion) of the total monetized benefits in the 2015 RIA for the final CPP rule for the 2025 analysis year (USEPA 2015b). Co-benefits that outweigh the direct benefits of a rule not only obscure the direct impact of the rule, but also beg the logical question of whether the rule is effectively regulating the most important pollutants in the first place. Further, the pollutants reduced to achieve the monetized co-benefits, typically fine particulate matter (PM<sub>2.5</sub>) and ozone, are directly regulated in other rules and it is unclear how EPA ensures that benefits are not double-counted. Removal of co-benefits from the benefit-cost analysis would correct these issues and provide greater transparency in the EPA's rule analysis. However, if the decision is made to continue calculating co-benefits, the EPA should also provide some accounting mechanism that is posted online and/or included in each RIA to illustrate that benefits are not double-counted.

**9. Because of the important role that benefits estimations play in policy decisions (Executive Order 12866) and in communicating benefits to the public, the EPA should either discontinue calculating benefits achieved at pollutant concentration ranges where the available concentration-response data are highly uncertain or provide some accounting mechanism, such as a weighting factor, to limit the bias of the current process.**

Executive Order 12866 requires that, to the extent permitted by law, regulatory actions should have benefits that justify their costs. However, the role that benefits estimates play in decision making is not limited to the EPA Administrator. Benefit estimates, both monetary and numbers of avoided health outcomes, become the most widely

cited statistics about proposed and final rules in the media, and among legislators, activists, academics, and citizens.

Prior to the CPP Repeal RIA, the EPA assumed benefits would be achieved for every incremental decrease in ambient air pollutants, even at low concentration levels that either haven't been studied or that show inconsistent or no changes in health effects. This approach has caused a glaring policy inconsistency between the NAAQS that is set to protect public health with an adequate margin of safety, and the calculation of benefits to 0 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) that suggests substantial health effects are occurring well below the NAAQS. The best example can be found in the 2017 CPP Repeal RIA, which was the first RIA in which the EPA acknowledged and attempted to quantify this uncertainty. For simplicity, the following statements focus only on the 3% discount rate using the rate-based approach for the year 2025. Using the typical EPA assumption that there is no threshold below which  $\text{PM}_{2.5}$  concentrations do not cause premature deaths (i.e., benefits are quantified to concentrations of 0  $\mu\text{g}/\text{m}^3$ ), the original CPP rule was estimated to save the United States between \$7.4 and \$17.7 billion (depending on which set of major epidemiological studies is selected to inform the analysis). Altering this assumption to consider that risk is unquantifiable below the lowest measured level of  $\text{PM}_{2.5}$  concentrations in the epidemiological studies supporting the EPA's analysis (ambient measurements of 5.8  $\mu\text{g}/\text{m}^3$  or 8  $\mu\text{g}/\text{m}^3$ ) decreases this monetary savings to between \$6.9 and \$10.1 billion (a 7 or 43% reduction from the original estimate). Assuming that the risks below the level of the  $\text{PM}_{2.5}$  NAAQS (12  $\mu\text{g}/\text{m}^3$ ) are highly uncertain and therefore unquantifiable, as represented in the EPA's justification for the level of the  $\text{PM}_{2.5}$  NAAQS in the final rule, the savings drops to between \$0.8 and \$2.7 billion (an 85 and 89% reduction in savings from the original estimate).

This cut-point analysis illustrates just one aspect of uncertainty, namely that benefits predicted at low ambient concentrations can account for the vast majority of a rule's calculated benefits. There are several options for dealing with this amount of uncertainty and the bias that it introduces into the ultimate policy decision. In order to be most consistent with the EPA's own analysis, the EPA would no longer calculate  $\text{PM}_{2.5}$  benefits below the level of the current standard. If the EPA chooses to calculate benefits below the level of the current standard, they should not be calculated below the lowest measured level of the epidemiology study from which the concentration-response function was obtained. If the EPA chooses to use cut-points below the NAAQS as a standard practice for estimating benefits, then multiple cut-points should be included in the analysis to determine the sensitivity of the analysis to the cut-points chosen (e.g. at the lowest measured pollutant level in the relevant epidemiology study). EPA may also consider using a weighting factor so that benefits estimates that are more uncertain are not given as much weight as effects that are more certain. Finally, regardless of the calculation method, the EPA should endeavor to adequately communicate the level of bias and uncertainty in its benefits estimates in written documents, as well as its external communications on the rule (e.g., fact sheets, presentations, media communications).

**10. The EPA should attempt to strike a balance between standard term definitions and the need to accomplish important environmental goals.**

The EPA solicited feedback on a number of terms and whether they should be given standard definitions across the EPA's rules. Although consistency can be obtained through such standard definitions, the TCEQ cautions the EPA to not make the definitions of terms such as "appropriate," "practicable," and "feasible" too restrictive. Further the TCEQ recommends that the EPA maintain a neutral approach to defining these terms. For example, in assessment documents for the primary sulfur dioxide and nitrogen dioxide NAAQS, the EPA focused its discussion of the "weight-of-evidence" on only those studies showing a harmful effect. The TCEQ encourages the EPA to consider all available evidence and study quality, regardless of whether the presented results are positive, negative, or null.