Comments by the Texas Commission on Environmental Quality

Regarding Guidance on Progress Tracking Metrics, Long-Term Strategies, Reasonable Progress Goals and Other Requirements for Regional Haze State Implementation Plans for the Second Implementation Period

EPA Docket ID No. EPA-HQ-OAR-2016-0289

I. Background

On July 8, 2016, the United States (U.S.) Environmental Protection Agency (EPA) published in the *Federal Register* a notice of availability and public comment period for proposed guidance regarding progress tracking metrics, long-term strategies (LTS), reasonable progress goals (RPG), and other requirements for regional haze state implementation plans (SIP) for the second implementation period under the regional haze rule (RHR). Under the Federal Clean Air Act (FCAA) and the RHR, states are required to take actions for protection of visibility in mandatory Class I federal areas.

The Texas Commission on Environmental Quality (TCEQ) provides the following comments on this proposed guidance.

# II. Comments

## Proposed Revisions are Unnecessary

**The EPA should withdraw this proposed guidance and continue to use the 20 pages of 2007 guidance originally issued for the first planning period. In addition, the EPA should withdraw all the proposed amendments to the RHR except the change of the due date for the SIP for the second planning period from July 31, 2018 to July 31, 2021 and the elimination of the requirement for progress reports.**

At face value, it is obvious that the proposed guidance, which is over an order of magnitude longer than the prior guidance, will increase the complexity and burden that states face implementing the RHR with no corresponding improvement in the effectiveness of the program in creating actual perceptible visibility benefits. The EPA attests that the proposed RHR (81 FR 26967) and guidance revisions will reduce the burden of implementing the Regional Haze Program, and that they create no unfunded mandate. However, from the perspective of a state that would be in the position to comply with the complicated new requirements in the proposed RHR and guidance, it appears that the net impact of the proposals is a decided increase in the burden on states for virtually every aspect of the program. As discussed in TCEQ comments B.5 and B.6, just evaluating potential control measures will create an excessive burden on states to meet the EPA’s broad-ranging expectations for considering prior control measures. The TCEQ anticipates that the resources needed to implement the Regional Haze Program, including SIP preparation, will be significantly increased by the proposed RHR and guidance with no guarantee of perceptible visibility benefits.

## Control Measure Analysis

**B.1 The EPA’s guidance for evaluating control measures associated with long-term strategies and reasonable progress has been designed to make it very difficult, if not impossible, for states to objectively consider control measures based on the potential visibility benefits while having any reasonable assurance of the EPA’s approving the SIP submittal. The EPA’s guidance would effectively require states to impose control measures solely for the sake of imposing controls regardless of the visibility benefits and is contrary to the FCAA.**

The EPA’s draft guidance establishes numerous criteria and rationale that are not acceptable reasons for rejecting a control measure, yet provides little specific guidance by which states can clearly determine when to implement a control measure and when to rule out control measures. While the EPA admits that visibility benefits may be considered when evaluating control measures, the EPA actively attempts to persuade states not to consider visibility benefits (Section 4.2, page 15). The EPA indicates that “states may consider visibility in addition to the four statutory factors when making their reasonable progress determinations, as long as they do so in a reasonable fashion.” (Section 4.2, page 15). Yet, the EPA does not provide any guidance on exactly how states should make such a determination or what the EPA considers to be reasonable. In fact, the EPA refuses to establish any formula or bright-line test for states to follow in evaluating control measures for making reasonable progress (Section 4.4, page 17), making it impossible for states to have any reasonable assurance if they are submitting an approvable SIP.

The EPA’s preferred approach only considers visibility impacts of sources and does not assess whether the control measures under evaluation would actually reduce those visibility impacts. The first alternative approach does not consider visibility impacts or benefits, and the state must evaluate control measures for all sources and implement those measures deemed reasonable after considering the four statutory factors (Section 4.2, page 15). Only in the second alternative approach would the EPA allow states to consider the visibility benefits of a control measure. However, the EPA’s guidance essentially makes considering visibility benefits in this approach meaningless by refusing to establish any specific guidance and by prohibiting states from rejecting a control measure based on the visibility benefits being imperceptible to the human eye. The vague guidance that the EPA does provide for evaluating visibility benefits in Section 8.2 of the guidance document is entirely subjective, enabling the EPA to justify disapproving a state’s control measure analysis based on the state’s reasoning not being “reasonable” in the eyes of the EPA. The TCEQ considered visibility benefits of all control measures evaluated as an aggregate and concluded that the imperceptible visibility benefits were not justified in its original regional haze SIP submittal and provided the rationale for the determination. Yet the EPA disapproved that SIP because it disagreed with the TCEQ’s determination and is now proposing to revise its guidance to fit its decision after the fact. Even if a state were to use the Texas federal implementation plan (FIP) as a guideline for the second alternative approach as the EPA suggests, the state still has no specific guidance because EPA Region 6 justified the imperceptible visibility benefits of its controls in the FIP with terms such as “meaningful visibility improvements” with no explanation or technical analysis as to why it considered those improvements to be meaningful. As a result of this vague direction, states using the EPA’s second alternative approach would be at a significantly higher risk of the EPA’s disapproving their SIP submittals.

The sum effect of the EPA’s proposed guidance and three approaches for evaluating control measures is that states are being pushed towards implementing controls for regional haze purposes without regard to whether those measures actually result in visibility improvement. The EPA attempts to rationalize its guidance regarding control measures for reasonable progress through its interpretation of FCAA, §169A(b)(2) and (g)(1) in an effort to minimize consideration of visibility benefits. The EPA argues that visibility benefits are not a “fifth factor” for states to consider and claims that while states may consider visibility benefits they may not give the same weight as the four statutory factors. However, the EPA’s interpretation of the FCAA is flawed. With regard to §169A(g)(1), the statute does not say that only those four factors may be considered when determining reasonable progress. Additionally, the EPA attempts to take the requirements of §169A(g)(1) out of the context in which reasonable progress is used in §169A(b)(2). FCAA, §169A(b)(2) requires state plans to contain such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal, i.e., the remedying of existing impairment of visibility in mandatory Class I federal areas where impairment results from man-made air pollution. In attempting to relegate visibility benefits to a lesser factor of consideration, the EPA is contravening the stated intent of Congress that control measures are intended to help towards achieving the national goal of improving visibility conditions. The EPA proposes that states cannot rule out control measures, even for a group of sources, on the basis of the controls resulting in less than perceptible visibility benefits. Yet the EPA would propose to approve states’ control measure analyses under its preferred approach and first alternative approach without the state even making a demonstration that the controls will actually help affected Class I areas make progress towards the goal under §169A(a). Requiring states to impose controls that are not necessary towards meeting the national goal due to a lack of visibility benefits is contrary to §169A(b)(2).

**B.2 The EPA’s justification in its attempt to dissuade states from considering visibility benefits is flawed; states have the ability and experience to evaluate visibility benefits. The EPA has not adequately justified its “no bright-line” policy for evaluating visibility benefits.**

The EPA is obviously attempting to dissuade states from using the second alternative approach for considering visibility impacts and benefits in which states would consider visibility both during the screening approach and when considering the four statutory factors. The EPA also states that “it can be very difficult for states to make logical and consistent decisions regarding the appropriate weight to give visibility benefits when weighing them against the four statutory factors.” (Section 4.2, page 16). Such a statement is unfounded and the EPA provides no basis for its belief that states are incapable of making logical and consistent decisions.

In reality, states have extensive experience in evaluating benefits of control measures. Evaluating the benefits of control measures is actually a requirement under the EPA’s guidance for Reasonably Available Control Measure (RACM) analyses in attainment demonstrations for the ozone National Ambient Air Quality Standard (NAAQS). The EPA has issued specific criteria for evaluating RACM and with regard to evaluating the benefit of a control measure the EPA’s RACM guidance indicates that the measure must be capable of advancing attainment of the area by at least one year. Section 172(c)(1) of the FCAA, the underlying requirement for RACM with regard to attainment demonstration SIP revisions, provides no specificity for how RACM should be evaluated, but the EPA has still provided specific criteria for states to follow. However, the EPA refuses to establish such specific guidance for evaluating visibility benefits for purposes of the regional haze requirements of the FCAA. The EPA’s only apparent rationale for not providing any specific guidance with regard to evaluating visibility benefits or establishing a *de minimis* level of visibility benefit is the EPA’s unsubstantiated assumption that if enough states implement control measures with negligible and imperceptible visibility benefits then the EPA’s approach may actually result in a perceptible visibility improvement somewhere in a federal Class I area. To paraphrase the EPA’s own statements from the draft guidance, absent a thorough explanation, inconsistent determinations are “the hallmark of arbitrary action” (Section 8.2.6, page 106). If the EPA cannot provide a clear, detailed, and rational explanation to justify the “no bright-line” policy for evaluating control measures and benefits for regional haze purposes given its contrary policy regarding evaluating control measures and benefits for other purposes of the FCAA, then the EPA’s policy is arbitrary and should be withdrawn.

**B.3 Evaluation of control measures should be based on consistent, logical, and unbiased decision-making founded in technical and legal facts. The EPA’s proposed guidance is a collection of conflicting arguments and illogical recommendations designed to justify imposing control measures that would not otherwise be justifiable.**

The TCEQ’s position on evaluating control strategies for SIP purposes is that decisions should be based on the technical facts and legal requirements of the situation using a consistent, logical, and unbiased decision-making process. The EPA’s proposed guidance for evaluating control measures for regional haze purposes appears to be the exact opposite of that approach, using biased and conflicting recommendations to rationalize imposing a control strategy. For example, the EPA recommends against considering absolute costs (e.g., total capital costs) if the cost/ton of a measure is similar to a measure that has been required on a similar source and states should assume the cost of compliance is reasonable. However, if the cost/ton is outside the range of previous regulatory actions then the EPA reverses its position and recommends the state should consider the absolute cost of control. Furthermore, the EPA’s guidance is heavily biased towards states not considering visibility benefits of the potential control measures despite visibility being the entire purpose of the Regional Haze Program. It is a fundamental cornerstone of all environmental regulatory actions to consider whether a control measure will actually help improve the environmental situation where the FCAA has directed the EPA and the states to take action. Yet, the EPA appears to have abandoned that concept in this case in favor of an approach designed to find justifications for imposing control measures with no regard to whether the measures will actually help address the environmental issue for which the evaluation is intended. The TCEQ strongly encourages the EPA to establish its guidance for control measures based on clear, consistent, logical, and unbiased recommendations for which all aspects are founded in the fundamental goal of FCAA, §169A(a); improving visibility in federal Class I areas.

**B.4 By relying too heavily on cost/ton, i.e., a $/ton basis, for the recommended approach and first alternative approach, the EPA misconstrues the meaning of taking into consideration the costs of compliance as established by Congress in §169A(g) of the FCAA for purposes of determining the reasonableness of potential control measures.**

The TCEQ disagrees with the EPA’s reliance on the presumptive exclusive use of cost/ton to determine which potential control measures on any possible source of air emissions may be reasonable. The EPA’s guidance in Section 8.1 suggests that if states determine the cost/ton for a particular control measure is within the range of a control measure previously required for a similar source, then states should not eliminate the measure based on the cost of compliance. However, the “cost of compliance” and “cost effectiveness” are not the same thing as the EPA implies, and the FCAA does not contain the phrase or term “cost effectiveness.” The FCAA instead instructs states to determine reasonable progress by taking into consideration the costs of compliance. The problem with a cost/ton value, when no other metric or basis is considered, is that it does not consider the true total cost burden to the entity that must bear that burden. A control measure resulting in a specific $/ton value, such as $1,500/ton, may be determined to be reasonable for a measure that affects large industrial sources and completely unreasonable for the same measure when it is applied to small businesses. Also, the EPA’s guidance appears to discourage states from considering absolute capital and annual (operating and maintenance) costs when the $/ton value is within a range established by prior actions and simultaneously suggests states to consider those same factors when the $/ton value is outside the same range. Texas strongly believes that if it is justifiable to consider capital and annual costs if the $/ton value is outside the acceptable range, then it is likewise justifiable for states to consider them when the same $/ton value is inside the same range. The EPA is attempting to change the basis for decision-making in order to arrive at a predetermined outcome.

**B.5 The TCEQ disagrees with the EPA’s guidance in Section 8.1 for selecting control measures required for reasonable progress under the recommended approach or the first alternative approach. For determination of potential control measures for inclusion in a state’s LTS resulting from application of the four statutory factors, the EPA intends to impose a process to select measures very similar to the New Source Review (NSR) Permitting Program by relying on a top-down approach used to evaluate and decide Best Available Control Technology (BACT) and by evaluating sources on a unit-by-unit basis.**

The TCEQ disagrees with the EPA’s recommendation that states should determine whether a control measure is reasonable by evaluating individual sources and using a top-down approach to analyze multiple control options. The EPA suggests that as part of the recommended approach or the first alternative approach, states should compare the compliance costs of a particular control measure for a particular source to all past regulatory actions ever considered by the state itself, the EPA, or other states, without regard to the environmental objective of the control measure and source under consideration. Furthermore, Section 8.1.2 recommends that states consider the cost/ton value for individual sources as opposed to a possible average that may apply across a group of sources or source category. States must also explain how important distinguishing factors influenced a state’s determination that a control measure is unreasonable.

The EPA is attempting to conform the Regional Haze Program to the NSR permitting program for the sake of achieving emissions reductions from any source, major or minor, point or area, based on any control measure that has been historically applied for any FCAA program reason regardless of the costs of compliance for the measure pursuant to the fact that a similar source previously used the same measure. It is inappropriate to use this approach for assessing the reasonableness of control measures for inclusion in the LTS, as a particular source may not have any significant impact on visibility. Section 8.1.2 references the EPA’s Reasonably Achievable Control Technology/Best Available Control Technology/Lowest Achievable Emission Rate (RACT/BACT/LAER) Clearinghouse as a repository of information on cost/ton values associated with past regulatory actions that imposed a cost of compliance. The EPA should be well aware that the Clearinghouse contains information mostly regarding sources that implemented controls due to NSR Prevention of Significant Deterioration (PSD) BACT determinations and Nonattainment NSR LAER determinations, i.e., a control technology review mostly reserved for major new or modified stationary point sources that triggered federal review based on emissions of large quantities of one or more criteria pollutants in an attainment area or the emission of a significant quantity of a criteria pollutant in a nonattainment area. The EPA is effectively guiding states to perform a control technology analysis and a control cost analysis for sources found to be subject to the Regional Haze Program similar to what major point sources would undergo when subject to the NSR Permitting Program, by evaluating each emission unit and all of its associated process parameters and determining that each unit achieve the same level of control as either PSD BACT or Nonattainment NSR LAER. The EPA further alludes to this by suggesting that, when evaluating cost/ton, states should be aware of sources with a relatively low hourly throughput compared to their capacities or that states may consider conditions of economic impacts of a plant similar to consideration of PSD BACT.

The resulting implications would be that states must divert an excessive amount of state resources from other air programs involving control strategy review and concentrate those resources on control cost analyses in order to evaluate all possible control measures on all possible sources that may be considered to contribute to visibility impairment in a Class I federal area. This is tantamount to states creating separate, and effectively new, pseudo-permitting programs and the associated state resources for the purpose of determining unknown amounts of emissions reductions by evaluating all potential control measures on every single unit, stationary and mobile, within the state regardless of the visibility impact of those emission reductions.

**B.6 The EPA’s recommendation that the state’s assessment of the reasonableness of cost/ton of a particular control should consider all past EPA and other state regulatory actions, including those not within the Regional Haze Program, is a potentially far-reaching and unwarranted interpretation of the language in 40 Code of Federal Regulations §51.308(f) that places a severe burden on states.**

Section 8.1.2 indicates that for states following the recommended approach or the first alternative, states should not limit their consideration to previous regulatory actions within the state program but of certain cost/ton levels “in other CAA programs.” In footnote 121, the EPA doubles down on this assertion, indicating that “the environmental objective of a control measure required under another CAA provision in a previous example is not relevant to whether the cost impacts of a similar measure that might be adopted for regional haze purposes are unreasonable.” However, the cost/ton of a control cannot be assessed in a vacuum, where the environmental benefit or purpose of the control is completely disregarded. For example, a higher cost/ton may be justified, and therefore considered reasonable, in an area that needs reductions to attain a measureable primary, health-based NAAQS. Section 8.2.3 asserts that a cost/deciview metric would be misunderstood by the public and state decision makers are more familiar with a cost/ton metric. Because the EPA fails to provide any relationship between required emissions reductions and visibility benefits, states must evaluate the cost/ton value of a potential control measure against a non-existent emission standard, or floor, to which states must reduce affected sources’ emissions. Based on this guidance, the EPA explicitly believes that such a relationship is unnecessary for purposes of the Regional Haze Program.

Further, the EPA failed to explicitly address how it expects states to consider implementation of all other possible FCAA requirements for any and all potentially affected major or minor stationary sources or groups of sources within the state when the EPA did not explicitly address what those “other requirements of the CAA” could or should be. The burden on the states to compare the cost/ton to that of all previous EPA or all other states’ actions would be considerable, especially if done on a source-by-source or unit-by-unit basis, as suggested by the EPA. Under the proposed rule amendments and the overarching authority granted over the states by the EPA to the Federal Land Managers, states would be forced to establish a new RPG every time a Federal Land Manager certifies there exists reasonably attributable impairment of visibility in an affected Class I area. States must respond to Federal Land Manager certifications within three or possibly two years, as proposed, by submitting a SIP that provides for reasonable progress toward natural visibility conditions in the affected Class I area, which would include consideration of the implementation of other FCAA requirements. States must analyze an exorbitant number of possible combinations of control measures that may be necessary to achieve reasonable progress toward natural visibility in an affected Class I area within a short time frame to satisfy the proposed reasonably attributable visibility impairment-response SIP requirement. States would also have to consider the implementation of these other FCAA requirements as they develop the periodic comprehensive regional haze SIP revisions. States are at a severe disadvantage if they must guess what “other requirements of the CAA” the EPA may have in mind. While the EPA may dispute this by reasoning that the EPA premised the guidance on states using all past regulatory actions ever considered by the state itself, the EPA, or other states, the suggested manner of analysis would undoubtedly impose an extreme burden on states.

**B.7 The EPA should not dismiss the use of the cost/deciview concept for evaluating visibility benefits.**

Despite the EPA’s recommendation of states using the deciview metric (Section 8.2.6, page 106), the EPA attempts to deter states from using the cost/deciview metric by basing its rationale on having “the potential for being misunderstood by the public and state decision makers who are more familiar with the cost/ton metric” (Section 8.2.8, page 107). Such a statement is unsubstantiated as the EPA fails to provide any explanation as to why it believes the cost/deciview concept has the potential to cause confusion among the public and state decision makers. While the TCEQ concedes that an evaluation on a cost/deciview basis could be complicated, the EPA appears to be dismissing the idea without any real consideration. States that wish to consider costs and visibility benefits on such a basis should be allowed to if adequate documentation and analysis are provided to support the approach. Rather than discounting the idea of a cost/deciview metric based on the EPA’s perception of others’ ability to understand the concept, the EPA should establish specific guidance for comparing the costs of compliance directly with the visibility benefits in such a manner.

## Modeling

**The guidance should be revised to account for resource constraints faced by states, especially regarding regional scale modeling.**

The guidance assumes that every state with one or more Class I areas will have the resources to conduct regional scale photochemical grid modeling to calculate the RPGs that result from implementation of the LTS. This assumption may not be true for all states. This is just one example of the types of analytic work that would be required to meet the expectations stated in the guidance. The guidance should account for state resource constraints by committing additional funding for states or Regional Planning Organizations to conduct the required modeling, or provide such modeling produced by the EPA. Alternatively, if the EPA is unable to provide the funding or the required modeling results, the rule and guidance could allow states to meet all RHR control requirements for the second planning period by showing decreases in point source sulfur dioxide emissions and nitrogen oxide emissions that are proportional to the ratio of the time from December 31, 2004 to December 31, 2028 divided by the time from December 31, 2004 to December 31, 2064.

## Data Analysis Methods

**The TCEQ supports allowing a state to use the 20% of days with the most impairment from U.S. anthropogenic emissions to track progress under the RHR. The TCEQ supports allowing states that choose to do so to continue to use the method allowed during the first planning period. Further, the TCEQ supports allowing states the choice to use the method for tracking visibility impairment laid out in the draft guidance or a different method that emphasizes the trends in visibility impairment caused by U.S. anthropogenic pollution.**

**In Chapter 5, the EPA has made an attempt to provide a method of tracking progress in reducing anthropogenic pollutant impacts on perceptible visibility impairment. For most Class I areas, this method appears to work well. However, this new metric does not accurately reflect the progress that has been made in reducing anthropogenic visibility impairment.**

**For the Wichita Mountains Class I area, this method understates the progress that has been made in reducing the major anthropogenic components contributing to regional haze. Using the data file provided along with the Technical Support Document, the TCEQ generated graphs and fitted trend lines from 2002 through 2014. The data show an approximately 48% reduction in impairment from ammonium sulfate, which is by far the largest anthropogenic contributor to light extinction at Wichita Mountains.** Likewise, impairment due to a**mmonium nitrate is down by about 16%. Organic carbon’s contribution to extinction is down by 35%, and** visibility extinction from **elemental carbon is down by 33%. The two carbon species come from both anthropogenic and natural sources. Over this same period** visibility **extinction from fine soil and coarse mass have increased by 11% and 57%, respectively. In most areas these species are natural in origin.**

**The method the EPA is proposing to require shows much less progress in improving visibility in Wichita Mountains than the first planning period method of tracking the average of the 20% of days with the highest deciview index value. The drop of close to 50% in anthropogenic pollutant levels, which caused over half the total extinction in 2002, represents substantial progress. Yet the tracking method that the guidance proposes to require would obscure that progress. For this reason, the proposed tracking method should be optional, not required.**

## Consultation Requirements

**Since the EPA determined that Oklahoma and Texas both had flawed consultations, the process is now less clear to Texas. Approvable consultation now seems a less certain prospect.**

Under the proposed guidance, Texas doubts that any state would be able to determine if its consultation and analysis was adequate until after it was acted upon by the EPA. The EPA and the federal land managers were present for Texas’ past consultations, and yet no mention was made of the apparent inadequacy for five or more years. This proposed guidance did not clarify what constitutes adequate consultation and, based on the proposal, Texas is concerned that consultation can only be determined to be adequate in hindsight or if the consultation resulted in action that the EPA wants to be implemented.

## Monitoring Strategy

The TCEQ suggests replacing the last paragraph on page 127 in the draft guidance with the following two sentences:

“The EPA is not expecting that any state will need to address these requirements in a manner differently than in its SIP for the first implementation period. A state’s participation in the IMPROVE monitoring program fully satisfies its monitoring obligation with respect to regional haze.”