# TCEQ LogoNational Comments

# Executive Review Summary

**TCEQ Proposed Comments On:**

On December 9, 2016, the United States Environmental Protection Agency (EPA) published a notice in the Federal Register (81 FR 89097) that the *Second External Review* *Draft Integrated Science Assessment for Sulfur Oxides—Health Criteria* is available for public review and comment.

**Overview of Proposal:**

The Integrated Science Assessment (ISA) is the first in a series of technical and policy assessments that provide the basis for the sulfur dioxide (SO2) National Ambient Air Quality Standard (NAAQS). The first draft ISA was released for public comment on November 24, 2015. The EPA anticipates issuing the final ISA no later than December 14, 2017, and finalizing the review of the primary NAAQS no later than January 28, 2019. The EPA last revised the primary SO2 NAAQS in 2010.

**Summary of Comments:**

The TCEQ appreciates the EPA’s efforts to address public comments on the first ISA by adjusting causal designations and adding supporting information related to several key uncertainties. The TCEQ continues to encourage the EPA to more fully consider and discuss exposure measurement error and the limitations of epidemiology studies in its assessment documents and clearly articulate when decisions are being made based on scientific evidence or default policy assumptions. Because many readers have only the time or expertise to review the Executive Summary and Introduction, effort should be made to include at least a summary of these uncertainties and limitations in these integrative chapters. The EPA should also provide better justification for its operating assumption that one mode of action explains the spectrum of effects occurring from low-concentration exposures in humans to high-concentration exposures in animals. Available evidence indicates that there are multiple concentration-dependent modes of action; therefore, the EPA should focus its evaluation on the mode of action occurring at ambient-relevant SO2 concentrations of less than 500 parts per billion (ppb), as informed by conclusions from controlled experiments. Finally, the EPA should better articulate causal associations between SO2 and the different types of respiratory effects whenever these associations are provided. There is little evidence linking respiratory effects other than asthma exacerbations with SO2 exposure and the EPA does not provide adequate justification for the causal designation for long-term SO2 exposure and respiratory effects.

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**Deadline**: March 20, 2017