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## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

The Honorable Ed Whitfield  
U.S. House of Representatives  
Committee on Energy and Commerce  
Chairman, Subcommittee on Energy and Power  
2125 Rayburn House Office Building  
Washington, DC 20515-6115

RE: Responses to Questions for the Record

Dear Chairman Whitfield:

Thank you for the opportunity to supplement my testimony before the Subcommittee on Energy and Power's hearing entitled, "H.R. 4775, Ozone Standards Implementation Act of 2016," on Thursday, April 14, 2016.

I have reprinted your questions below, with my answers immediately following.

**1. Currently, the EPA is prohibited from considering costs when setting a NAAQS. Are there other instances where the Agency does consider costs and where this practice results in health protective standards?**

Yes. The Safe Drinking Water Act requires EPA to establish two values for a chemical in water. The first is a Maximum Contaminant Level Goal (MCLG), which is analogous to the Clean Air Act's NAAQS. MCLGs consider only public health; not costs, availability of treatment technologies, or analytical detection limits. However, an MCLG is not enforceable. The second value EPA must establish for a chemical in drinking water is the Maximum Contaminant Level (MCL). The MCL is the enforceable standard that a public water system must meet. The MCL is set considering the availability of treatment technology and analytical detection limits. EPA can also determine if the costs of treatment outweigh the public health benefits of a lower MCL. There is no NAAQS level analogous to the MCL.

The EPA is also required to consider costs when setting other kinds of standards, such as New Source Performance Standards (NSPS) under Federal Clean Air Act (FCAA), §111, and National Emission Standards for Hazardous Air Pollutants (NESHAP), also known as Maximum Achievable Control Technology Standards (MACT) under FCAA, §112. When setting an NSPS, EPA is required to consider cost, non-air impacts, and energy requirements. The NSPS act as a "technological floor" to ensure that all new or modified sources covered by the NSPS meet minimum technological standards, but does not have a statutory public health impact assessment requirement. Similarly, under

§112, EPA is required to consider costs when initially setting the NESHAP/MACT and is required to assure that the NESHAP/MACT are protective of public health through a separate residual risk review that should occur 8-9 years after EPA promulgates the initial NESHAP/MACT. Additionally, EPA is required under §112(k) (Urban Air Toxics Strategy) to conduct a program of research and to develop a national strategy for reducing risk from air toxics in urban areas. The strategy must identify at least 30 HAPs that present the greatest risk to public health from area sources in urban areas. The strategy must achieve substantial reductions in public health risks, including a 75 percent reduction in cancer incidence from stationary sources. The EPA must assure that sources accounting for 90 percent or more of the aggregate emissions of each of the 30 identified HAPs are subject to emission control standards, which must include technology-based control (MACT or Generally Achievable Control Technology (GACT)) of area sources.

Even though these and other rules consider costs, they are still health protective.

**2. When calculating costs and benefits for a proposed standard, the EPA only includes costs to regulated entities. What are the consequences of this narrow view of costs? What other costs are not included in these estimates, but should be considered by the EPA?**

Although EPA only considers the regulated entity costs to comply with a new NAAQS, the actual total cost of ozone nonattainment is much broader in scope and more challenging to estimate. Costs outside of control technology are influenced by the type, amount, location, and timing of emission reductions necessary to achieve attainment, which is driven by the classification level for areas designated nonattainment.

Nonattainment classification levels are based on the concentration of ozone, measured by the area's design value. The higher the ozone design value (concentration), the more stringent the classification. As classifications become more stringent, areas must comply with all of the requirements for the less stringent classifications, in addition to the requirements for the area's classification. For example, with a marginal ozone classification, major point sources in the area must begin to comply with emissions inventory reporting requirements and offset proposed new emissions as part of the nonattainment new source review (NSR) permitting program, and local authorities must comply with federal general conformity and transportation conformity requirements. Although difficult to predict and estimate, the procedural costs, delays, and uncertainty introduced by these permitting and conformity requirements are often cited as reasons why companies may prefer not to locate or expand in nonattainment areas, which can severely impact an area's economic growth. Some specific costs that currently are not considered by EPA, but significantly impact citizens, include:

1. Costs accruing to governments. State and local governments incur costs when developing and implementing state implementation plan (SIP) revisions, including coordinating stakeholder involvement, outreach, implementing more stringent permitting requirements, implementing credit generation programs, monitoring, and enforcement. Local governments face costs associated with coordinating stakeholder involvement in air quality planning decisions, developing local ordinances, outreach, and participation in transportation and general conformity

activities. The TCEQ has estimated that the state's level of effort is 45,000 to 55,000 hours of staff time, with an estimated cost of over \$1 million dollars, per SIP revision. The cost of implementing SIP strategies at the state, local government, and regional level can also be significant due to the ongoing enforcement of required control strategies.

2. Costs accruing to individuals. Citizens in ozone nonattainment areas classified as moderate or higher may be required to comply with inspection and maintenance (I/M) and fuel requirements for vehicles or face other potential restrictions (on idling, lawn care equipment, etc.). For example, in Texas the I/M fee is generally an incremental \$14 to \$27, on top of the cost for a safety inspection, for all gasoline-fueled light-duty vehicles aged two through 24 years old. Vehicles that do not pass the emissions inspection must be repaired and retested in order to be registered. In 2014, the emissions inspection failure rate was approximately 4% and the average cost of repair was \$554 for vehicles that participated in the state's Low Income Vehicle Repair Assistance, Retrofit, and Accelerated Vehicle Retirement Program (commonly known as "LIRAP"). Citizens may also experience indirect cost increases for goods and services as businesses complying with control requirements raise prices. These costs may be estimated in general equilibrium econometric models that account for behavior changes ("induced" effects).
3. Indirect costs. These include the long-term effects of business decisions to avoid locating or expanding in areas with stricter air quality controls. They may include changes in prices, employment, and consumption patterns.
4. Negative costs (benefits). Some businesses that build, install, and service pollution control equipment may benefit from increased demand for their products, including engineering design, materials, manufacturing, construction, and vehicle inspection industries.

The result of EPA's narrow analysis is to underestimate the costs of its rules and provide confusing information to the public about the real cost-benefit relationship associated with NAAQS implementation. Even the cost estimates currently provided by EPA are given poor context with regard to uncertainty in the values and their indirect impacts on Americans. For example, NERA Economic Consulting estimated the potential emissions control costs to achieve the proposed ozone NAAQS of 65 ppb would decrease the nation's gross domestic product by about \$140 billion (2014\$) per year on average over the 2017 through 2040 period [1]. EPA estimated the same proposed standard would cost only \$16 billion (2011\$) by 2025 [2], but did not include any estimation of control cost impacts to the economy overall. In addition to these compliance costs, costs to state and local governments can be quite dramatic, as can the subsequent impact to the local economy. Increased unemployment, poverty, and loss of funding for local public health programs and clean air initiatives are just a few of the consequences of stunted economic growth and each of these issues cause both additional costs and health burdens that are not currently considered by EPA. Better representing the true costs of a regulation should help create more responsible and meaningful regulations.

**3. During the hearing it was suggested that although the EPA cites ozone effects on asthma as a reason to promulgate a new, lower standard, these effects may be uncertain. Please provide additional information on the relationship between ozone exposure and asthma.**

When evaluating ozone effects on asthma, there is an important distinction that should be considered: whether ozone concentrations are causing or contributing to asthma (asthma development or asthma incidence), or whether ozone concentrations are causing asthma exacerbations (asthma attacks). For asthma development, a recent meta-analysis did not show an association between ozone and asthma incidence [3]. In addition, EPA Administrator Gina McCarthy was quoted in a Congressional Hearing saying, “Well, I don’t think that the scientists at this point are saying that asthma is caused by ozone...The issue is that it’s exacerbated.”<sup>1</sup> As for asthma attacks, current scientific literature does not provide a definitive link between current ambient ozone levels and asthma exacerbations. Three major multi-city studies have followed hundreds of mainly urban children in 16 different cities and studied their lung function and asthma symptoms [4-6]. Only one of these studies [6] showed an association between asthma symptoms and ozone, and that was in only one city (Baltimore) out of the eight studied. The most recent study available (conducted by the University of Texas at Austin and Yale University) examined relationships between asthma-related hospitalizations and ozone concentrations for eight cities in Texas [7]. They found that ozone was not related to asthma hospitalization risk, but rather that the common cold is a primary driver of asthma exacerbation. Therefore, the general consensus from the scientific community is that ozone does not cause asthma, and overall, recent evidence does not show that ozone contributes to asthma attacks at ambient concentrations. While the latter statement is in disagreement with the statement made by Administrator McCarthy, we note that the EPA’s regulatory impact analysis did not show a statistically significant decrease in asthma exacerbations with a decreasing ozone standard (Table 6-20 [2]).

**4. Although opponents of HR 4775 cite concern that the lengthened NAAQS review cycle would limit the EPA’s ability to keep the NAAQS consistent with current literature, the EPA has actually had difficulty maintaining the existing review schedule. Has the EPA’s failure to keep this schedule impacted Texas? If so, how?**

The current NAAQS review cycle is already lengthy, with many large documents and analyses to be developed and many hundreds of comments to consider from multiple rounds of public comment and Clean Air Scientific Advisory Committee reviews for each standard. The length of the current process (often far more than 5 years) has not inhibited the EPA’s ability to assess available scientific literature and to act on it to ensure that the standard is set at a health-protective level. While there may be cutoff publication dates for incorporation into a given document, the EPA can, and has revised documents mid-cycle and/or issued interim analysis to include newer, relevant literature. For example, during the last review for the ozone NAAQS, the EPA issued a

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<sup>1</sup> Committee on Science, Space, and Technology - Full Committee Hearing - Examining EPA’s Regulatory Overreach- July 9, 2015

number of technical memos that included supplemental analyses, errata, and other updated information.

The EPA's failure to maintain a 5-year NAAQS review cycle has not meant that emission reduction efforts in Texas have stopped. Like many other states, Texas is still working toward reducing ambient ozone concentrations in areas designated nonattainment under previous standards. Because of ozone's complex atmospheric formation chemistry, the multitude of precursor sources in densely populated and industrial areas, and the impact of national and international transport, ozone reduction strategies are long-term in scope. Delay of a new ozone standard does not pause the reduction strategies that are already being planned or in place.

Frequent NAAQS revisions are, in fact, more challenging for state governments than delays in their review. When the EPA revises the NAAQS frequently, as they have done with ozone recently, there are overlapping standards with differing ozone nonattainment requirements and sometimes differing ozone nonattainment counties for each standard. This, coupled with delays in implementation of the NAAQS, leads to burdensome and duplicative SIP planning for states and confusion among the regulated community and the public. Transition from one ozone NAAQS to another is difficult, especially when guidance and rulemaking necessary for states to plan for transitioning to the new NAAQS is not provided at the time of NAAQS promulgation and EPA guidance requires that SIP revisions include time-consuming photochemical modeling to demonstrate attainment for all classifications except marginal. In addition, the FCAA does not provide requirements for transitioning from one NAAQS to another, nor does it provide a schedule that gives states enough time to plan for a revised standard or require the EPA to revoke the previous standard in a timely manner.

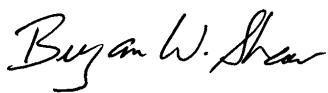
To further complicate the impact of frequent NAAQS revisions, the FCAA does not sync planning and implementation obligations for interstate transport with nonattainment planning and implementation obligations. Interstate transport requirements are required by the FCAA to be finalized at least a year before attainment demonstrations are due so as to allow a state's attainment demonstrations to incorporate this information and avoid local or federal over-control due to these requirements not being synchronized. The current three-year intervals between attainment deadlines for ozone nonattainment areas classified as marginal, moderate, and serious need to be extended to six-year intervals. If an area does not meet an attainment date and is bumped up to the next classification, states often have less than three years (often only two) to analyze and determine needed reductions, develop a new future case modeling scenario, develop any additional control strategies, conduct stakeholder meetings, propose and adopt rules and a SIP revision (which often takes a year by itself), give industry adequate time to comply with control strategies (often 6-24 months), and then have the emission reductions show up in a three-year average of monitoring data. The federal system of reclassification sets states up to fail in these "bump-up" situations. States should not be penalized or expected to ask for voluntary double bump-ups and bear the associated impacts on permitting and other actions just to compensate for an unwieldy FCAA requirement.

**5. Some have suggested that the litigation filed by Texas and several other states over the 2015 ozone NAAQS indicates that these states are putting technology and policy issues above public health issues. What priority does Texas give to public health concerns? In your experience, are the NAAQS purely public health standards or is there a policy component?**

The TCEQ is firmly and proudly committed to the protection of public health and the state's natural resources. In the realm of air quality alone, Texas annually invests millions of dollars in ambient air monitoring, emission reduction programs, and scientific studies that are over and beyond what is required by federal rule. The present litigation is intended to address noted technical and scientific shortcomings with the 2015 ozone NAAQS, not to impede progress in lowering ambient ozone concentrations. Indeed, Texas continues to be a national leader in ambient ozone reductions and the EPA itself anticipates that minimal emission reduction efforts will be necessary in Texas in order to meet the 2015 ozone NAAQS [2]. The TCEQ continues to work with its local government partners, as well as industry, to understand and reduce ambient ozone concentrations and looks forward to continued discussion with the EPA and other state governments on meaningful air quality regulation.

The NAAQS are neither purely public health nor public policy standards. The basis of the NAAQS is to determine a level of a criteria pollutant that is requisite to protect public health. However, many policy judgments are necessarily embedded in the NAAQS review process in order to deal with the uncertainties inherent in evaluating different lines of evidence throughout hundreds or thousands of studies. The role of policy in the setting of the NAAQS is further outlined in the 2013 D.C. circuit's opinion on *Mississippi et al. v. EPA* ("the NAAQS review process includes EPA's public health policy judgments as well as its analysis of scientifically certain fact"<sup>2</sup>) and *Lead Industries Association* (the margin of safety is "a policy choice of the type that Congress specifically left to the Administrator's judgment"<sup>3</sup>).

Sincerely,



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Chairman, Texas Commission on Environmental Quality

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<sup>2</sup> *Mississippi v. EPA*, No. 08-1200 (DC Cir. 2013) at 13

<sup>3</sup> 647 F.2d at 1162

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