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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 1, 2014

The Honorable Chris Turner
Texas House of Representatives
PO Box 2910
Austin, Texas 78768-2910

Dear Representative Turner:

Thank you for your letter dated April 11, 2014, and allowing me the opportunity to respond. The April 8 Dallas Morning News (DMN) article you referenced did not present the important information our staff conveyed to the journalist during their 45 minute interview. On April 9, we sent the DMN a 600-word op-ed (see attached) we wrote in response to the article, but unfortunately the DMN refused to publish it. Instead, they agreed to publish a significantly less detailed 200 word letter to the editor from us on April 13 (see attached).

As you pointed out in your letter, the Texas Commission on Environmental Quality (TCEQ) strives to protect our state's public health and natural resources consistent with sustainable economic development. To accomplish this mission, we base decisions on the law, common sense, sound science and fiscal responsibility, and we strive to ensure that regulations are necessary, effective, and current. In accordance with this mission, the TCEQ agrees with the EPA that the National Ambient Air Quality Standards for ozone should protect public health. However, we would like to emphasize that the EPA's own modeling presented in the Health Risk and Exposure Assessment (HREA) for ozone predicts that lowering the standard will *increase* deaths for some areas of the country, including Houston. Not clearly spelling this out in the executive summary of the HREA and the Policy Assessment (PA) is just one example of how the EPA misrepresents or "tortures" their own analyses and the scientific literature. Also, the EPA fails to clearly point out in the executive summaries that their own analysis concludes that there are only minimal differences between sensitive individuals (such as asthmatics) and healthy individuals in their response to ozone. In fact, the EPA analysis uses data collected in healthy individuals to estimate potential effects of ozone in asthmatics, based on the fact that differences between healthy and asthmatic people should be minimal.

The EPA relies primarily on two endpoints in its analysis, the first of which is respiratory effects. We agree with you that high levels of ozone can irritate the respiratory system, reduce lung function, cause inflammation and potentially damage lung tissue; however these effects are consistently observed at much higher levels than those under consideration by the EPA for the new standard (60-70 ppb). These effects have *not* been consistently observed at levels of ozone below the current standard. In the few instances that effects on breathing have been reported at lower levels of ozone, they are mild, temporary, reversible, and most importantly, not harmful. In fact, in most cases, these changes in breathing are small enough to be within the normal variation we expect to see from day to day for any given person (see attached comments for

supporting information). The EPA bases much of its case for lower ozone standards on the belief that lower standards will lower the incidence of asthma. However, there are many doubts about this claim—there is information available for Texas as well as nationwide studies (see attached) that show hospital admissions for asthma are highest in the winter, when ozone levels are at their lowest. The Texas specific data is attached on page 6 of our comments. In addition, there are strong linkages between asthma and other environmental triggers, such as pollen, mold, and animal dander or cockroach droppings. But perhaps the strongest indication that the ozone-asthma link may be flawed is that asthma diagnoses are on the rise, even though U.S. ozone levels are consistently lower than ever measured. As a result, it is not clear that there is a definite link between ozone levels and asthma development.

We stand by our determination that the association between ozone mortality and premature mortality is not causal. This is the second main endpoint considered by the EPA in setting the standard, largely based on one study, Jerrett *et al.* 2009, which is the first study to report a relationship between long-term exposure to ozone and respiratory mortality. Other researchers (see accompanying document) have looked at the same group of volunteers (recruited in the 1980's) used in the Jerrett study and failed to find that association. In addition, there are technical details about the study that raise concerns. For instance, information on the study participants' smoking, diet, and obesity rates may well have changed over time, which would affect the results. The Jerrett study failed to adequately take these factors into consideration. Also surprisingly, increased mortality was not seen in areas with consistently high ozone levels, like Southern California. While some say that many thousands more studies were used in evaluating the ozone standard, in reality, most are only mentioned in passing and few are actually used to set the standard. In addition, what doesn't come across in the EPA documents is that the available studies do not consistently report a relationship for ozone and mortality in all U.S. cities.

Our conclusions are summarized in the attached document, and are based on a thorough, objective evaluation of the relevant scientific literature as well as the analysis presented by the EPA in its HREA and PA for ozone. This evaluation was conducted by our Toxicology staff, which consists of 9 PhD and 5 Master's level scientists, including 3 board-certified toxicologists, and collectively represents over 150 years of experience. It is our determination that the EPA has not made the case that a lower standard will improve public health or save lives.

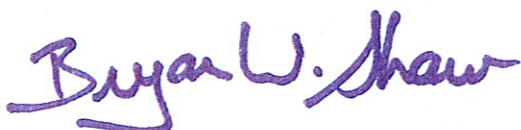
It should be noted that the EPA's own analysis concludes lowering the standard will harm public health in Houston and other areas of the country. In appendix 7 of the EPA HREA, results are presented that indicate *increased* mortality in Houston when modeling a change from current ozone concentrations to meeting the 75 ppb standard. Even taking into account the reduced mortality reported for the alternative standards of 70, 65 or 60 ppb, the net effect is still an *increase* in mortality (see the table on page 1 of the attached detailed comments). The TCEQ is charged with and obligated to identify absurd results and analyses such as this to ensure the science is accurate and that regulations are in place for a defensible purpose. Our full comments (attached) describe the issues identified by our staff and other commenters with regard to the interpretation of scientific studies, handling of background ozone, etc. Some of these same concerns have been pointed out by other organizations, such as the National Academy of Sciences (NAS) in 2008. Please see the attached excerpt from the 2008 NAS report detailing these concerns.

Setting the right ozone standard is very important. We shouldn't spend resources pursuing health benefits on the basis of ambiguous science when we could pursue other, more important, more attainable goals. For example, by focusing solely on ozone merely because it is one of only six chemicals with a national standard, we are missing an opportunity to address the real cause of increasing asthma (which is currently unclear). It's time to change the paradigm of continually lowering the ozone standard just because "lower must be better." We should, instead, focus on gaining a better understanding of other issues besides ozone that affect public health. The TCEQ is actively pursuing this goal by commissioning a study that will be conducted by a third party (Gradient Corporation) examining the relationship between concentrations of multiple air pollutants and asthma in the six largest metropolitan areas in Texas. This effort is collaborative in nature, and utilizes data collected by both the TCEQ as well as the Texas Department of State Health Services.

Regarding the study the Dallas County Medical Society (DCMS) commissioned, we met with representatives from the DCMS on September 25, 2013 and provided them with scientific references as we are providing you. We offered to meet with them in a follow-up meeting to discuss these data and have yet to hear back from them despite several attempts to contact them. In addition, I would like to point out that elected officials (from both political parties) from the states of Oklahoma, Louisiana, Indiana, Virginia, Florida, Arkansas, and Pennsylvania submitted comments to the EPA's Clean Air Scientific Advisory Committee similar to ours. We are attaching their comments.

Thank you again for the opportunity to respond to your concerns. It is our belief that open dialogue on these complex issues yields the best results. It is my hope that all groups involved or interested in this and other environmental issues communicate with the TCEQ to help ensure we make sound decisions consistent with our stated mission. We would be happy to meet with you at your convenience to discuss your concerns and our analysis.

Sincerely,



Chairman Bryan Shaw, Ph.D., P.E.
Texas Commission on Environmental Quality

Enclosures

CC: The Honorable Joe Straus, Speaker, Texas House of Representatives
The Honorable Patricia Harless, Chair, House Committee on Environmental Regulation
Richard A. Hyde, P.E., Executive Director, TCEQ
Stephanie Bergeron Perdue, Deputy Executive Director, TCEQ
Anne Idsal, General Counsel, TCEQ