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Mark R. Vickery, P.G., *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 11, 2012

U.S. Environmental Protection Agency
Mail Code 6102T
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Attn: Docket ID No. EPA-HQ-OAR-2008-0476

Re: United States Environmental Protection Agency (EPA)
Responses to State and Tribal 2008 Ozone Designation Recommendations: Notice of Availability and Public Comment Period

Dear Sir or Madam:

The Texas Commission on Environmental Quality (TCEQ) provides the following comments on EPA's response to the Texas recommendation for 2008 ozone nonattainment designations. The availability of a public comment period was published in the December 20, 2011, *Federal Register* (76 FR 78872). The EPA's timing of the 30-day comment period during the holiday season severely restricted the TCEQ's ability to provide thorough comments within the stipulated time period.

In short, the TCEQ believes that the EPA should reverse its plan to expand Texas nonattainment areas in Houston and Dallas because there is no scientific justification for the proposed expansion. The counties in question neither measure nonattainment at a federal regulatory monitor nor do they significantly transport ozone precursors to violating monitors.

Background. For its 2012 implementation of the 2008 ozone standard, the EPA said in a December 9, 2011, letter sent to the governor that it would expand the Houston-Galveston-Brazoria (HGB) and Dallas–Fort Worth (DFW) ozone nonattainment areas. These areas were established in 2004 to implement the 1997 ozone standard. In particular, the EPA said it intends to add: Matagorda County to the HGB eight-county nonattainment area, and Hood and Wise Counties to the DFW nine-county nonattainment area. (The governor had recommended that the HGB area remain eight counties and the DFW area remain nine counties.)

The EPA relied significantly on meteorology (weather/transport patterns) to justify the inclusion of the three counties as nonattainment. The TCEQ believes that the use of the National Oceanic and Atmospheric Administration Single Particle Lagrangian Integrated Trajectory Model (HYSPLIT) was unsoundly applied as corroborative support for expanding the HGB and DFW nonattainment areas. HYSPLIT cannot provide evidence directly linking emissions from one area to ozone formation in another area. Furthermore, HYSPLIT does not have the ability to calculate pollutant concentrations, the types of pollutants added along the transport path from

different areas, pollutant dispersal rates along the transport path, or ozone formation rates that may result from different pollutant interactions. The EPA also relied on emissions inventory data. However, the EPA did not use the most current emissions inventory data submitted by the state. Emissions inventory discrepancies are discussed below.

Matagorda County. The EPA stated that Matagorda County should be designated nonattainment because of high emissions and a wind pattern that indicates emissions could at times impact violating monitors. The TCEQ disagrees with this analysis because emissions are in fact substantially lower than those cited by the EPA and because TCEQ's technical analysis shows that very few wind trajectories that travel through Matagorda County impact violating monitors. Furthermore, Matagorda County does not have a federal regulatory ozone monitor, does not significantly contribute mobile- or area-source emissions to the HGB nonattainment area, and is outside the jurisdictional boundary of the Houston area's Metropolitan Planning Organization. Matagorda County's 2010 population, which has declined by 3% between 2000 and 2010, is approximately 37,000 residents compared to the HGB nonattainment area population of approximately 6 million residents.

- Regarding **emissions**, the EPA December 9 letter cited high emissions that included non-road source emissions calculated from EPA-derived surrogates. However, in May 2010, the TCEQ submitted locally obtained non-road emissions data from commercial marine vessels and locomotives to the EPA for the Periodic Emissions Inventory that result in 2,928 tons per year *fewer* nitrogen oxides (NO_X) emissions. This correction is a 42% reduction from the total emissions of 7007 tons per year cited by the EPA.

- Regarding **wind patterns**, the EPA cited back trajectory analysis that shows "at times" emissions from Matagorda County could impact violating monitors in the HGB area. However, a review conducted by TCEQ technical experts created back trajectories for five years, i.e., 2006 through 2010, for days measuring greater than 76 parts per billion at the Manvel Croix, Texas City, and Wallisville monitors shows that at most only 1.8% of the trajectory endpoints actually traverse Matagorda County. On the few days when Matagorda County was upwind of a violating monitor, the back trajectories routinely crossed counties with far greater emissions. Again, a back trajectory traversing Matagorda County does not necessarily mean that emissions from Matagorda County have a significant impact on ozone formation.

Hood County. The EPA stated that Hood County should be designated nonattainment because of considerable growth in emissions from oil and gas development, a wind pattern that indicates emissions could at times impact violating monitors, and a high population growth. Although the most recent census data indicate that there has been some population growth in Hood County, the TCEQ disagrees with this analysis because emissions are in fact substantially lower than those cited by the EPA and because TCEQ's technical analysis shows very few wind trajectories that may impact violating monitors. Furthermore, Hood County's design value for 2008 through 2010 measures 75 parts per billion, i.e., attainment of the 2008 ozone standard.

- Regarding growth in emissions from **oil and gas development**, the emissions cited by the EPA did not include the TCEQ revision to oil and gas sector pneumatic emissions submitted October 2011 to the EPA for the Periodic Emissions Inventory, which results in 808 tons per year *fewer* volatile organic compound (VOC) emissions than those cited by the EPA.

- Regarding **wind patterns and proximity of emissions to a violating monitor**, the EPA cited back trajectory analysis that shows at times emissions from Hood County could impact a violating monitor. However, TCEQ's technical experts indicate that at most 2.55% of the trajectory endpoints from Hood County impact violating monitors. The TCEQ's analysis of the days with the highest ozone concentration do not indicate that Hood County emissions routinely impact DFW monitors.

Wise County. The EPA stated that Wise County should be designated nonattainment because of its proximity to violating monitors, growth in emissions from Barnett Shale gas production, a wind pattern that indicates emissions could at times impact violating monitors, and growth in population. Although Wise County is located near some violating monitors and the most recent census data indicate that there has been some population growth in Wise County, the TCEQ disagrees with this analysis because emissions are in fact substantially lower than those cited by the EPA and because Texas technical analysis shows that few wind trajectories would impact violating monitors. Furthermore, Wise County does not have a federal regulatory ozone monitor and is primarily a rural county with a low population density.

- Regarding growth in emissions from **Barnett Shale gas production**, the emissions cited by the EPA did not include the TCEQ revision to oil and gas sector pneumatic emissions submitted October 2011 to the EPA for the Periodic Emissions Inventory, which results in 6,048 tons per year *fewer* VOC emissions than those cited by the EPA.

- Regarding **wind patterns and proximity of emissions to a violating monitor**, the EPA cited back trajectory analysis that shows at times emissions from Wise County could impact a violating monitor. However, TCEQ's technical experts indicate that at most 2.87% of the trajectory endpoints from Wise County impact violating monitors.

Conclusion. In conclusion, EPA has not provided an adequate justification for the expansion of the HGB and DFW nonattainment areas for implementation of the 2008 ozone standard. Furthermore, the TCEQ believes there would be no justification for the associated imposition of rules and programs on citizens and businesses in these counties associated with such a nonattainment designation. Given the lack of evidence in all cases, it appears EPA cherry-picked data for the sole purpose of adding these counties to nonattainment areas. Therefore, the TCEQ specifically requests that the EPA reverse its plan to designate Hood, Matagorda, and Wise Counties as nonattainment counties.

The TCEQ appreciates the opportunity to provide these comments and expects that the State of Texas will respond further by the February 29, 2012, deadline specified in the EPA December 9, 2011, letter. If you have any questions concerning these comments, please contact Mr. David Brymer, Director, Air Quality Division, Chief Engineer's Office, 512-239-1735, or at david.brymer@tceq.texas.gov.

Sincerely,

Mark R. Vickery, P.G., Executive Director
Texas Commission on Environmental Quality