Texas Commission on Environmental Quality (TCEQ)

Comments to the Agency for Toxic Substances and Disease Registry (ATSDR)
Health Consultation for Midlothian Area Air Quality
Evaluation of Reported Animal Health Issues

The TCEQ appreciates the opportunity to comment on the ATSDR Health Consultation: *Midlothian Area Air Quality Petition Response – Evaluation of Reported Animal Health Issues (Public Comment Version, released August 26, 2015).* Below, please find our comments. We hope that consideration of these comments will assist ATSDR in refining the Health Consultation so that the most complete, accurate, and useful end product is available to the citizens of Midlothian.

General Comments

As a general issue of concern in the draft health consultation, the reader is lead to believe the air quality may have caused adverse health effects in the past when air monitoring in the Midlothian area indicates acceptable air quality. Further, air quality in Midlothian is better than most monitored areas of the country. This could lead to undue anxiety for the citizens of Midlothian.

We also note that the level of any given screening value does not constitute a bright line where health effects are expected to occur. On the contrary, these screening values are set at a level that protects the general population as well as sensitive subpopulations, incorporating an adequate margin of safety. Therefore, the simple fact that ambient air at a community monitoring site or modeled value exceeded a given screening value does not indicate (1) that citizens were actually exposed to that concentration, (2) that the concentrations measured at that monitor constitute unsafe exposures, or (3) that health effects would be expected from exposure to that concentration.

As the state environmental agency, the role of TCEQ is to protect our state's public health and natural resources. Therefore, TCEQ considers protection of public health not only when evaluating ambient air data, but also when issuing air (or other media) authorizations. We use methods and models that are protective of public health with an adequate margin of safety. The TCEQ looks forward to continuing to work with ATSDR to address the findings and recommendations made in this report and to sharing additional data and information that will produce the best possible product for the public and for policymakers.

Specific Comments

Page 4: The document states that "Air sampling data and from 1997 through late 2008 show sulfur dioxide (SO_2) at concentrations that could have harmed sensitive individuals [ATSDR 2012c]." There are no data presented to back up this statement in the document. On the contrary, as TCEQ stated previously in our February, 2013, comments on the Health Consult: *Assessing the Public Health Implications of the Criteria (NAAQS) Air Pollutants and Hydrogen Sulfide*, Midlothian has been, and continues to be, in compliance with the applicable SO_2 NAAQS (the following is from

the TCEQ Comments).

> The SO_2 NAAQS are set at a level that includes an adequate margin of safety to protect public health. The phrase margin of safety indicates that the NAAQS must include a safety factor to compensate for the inherent uncertainties in available scientific data, making the level conservative. During the most recent review of the SO_2 NAAQs, after extensive consideration of the exposure duration, EPA determined that a 1-h standard was most appropriate. This 1-h standard is considered protective of human populations that are particularly susceptible to health problems associated with breathing SO_2.
>
> The Midlothian area has been, and continues to be, in compliance with the applicable SO_2 NAAQS (see Figure 2). Thus, SO_2 levels in the Midlothian area, as defined by the NAAQS, are not of concern to public health.

The document also states "In a localized area north of Gerdau Ameristeel, breathing air contaminated with fine particulate matter ($PM_{2.5}$) for a year or more was determined to be a public health concern during the time period 1996 through 1998 [ATSDR 2012c]." There are no data presented to back up this statement in the document. On the contrary, as TCEQ stated previously in our February, 2013, comments on the Health Consult: *Assessing the Public Health Implications of the Criteria (NAAQS) Air Pollutants and Hydrogen Sulfide*, Midlothian has been, and continues to be, in compliance with the applicable SO_2 NAAQS (the following is from the TCEQ Comments).

> First, we note that the Midlothian area has been and continues to be in compliance with the PM NAAQS (see Figure 3), which is set at a level that protects public health (including sensitive subpopulations) with an adequate margin of safety. Therefore, we disagree with the conclusion that health effects were likely to occur as a result of potential exposure to these levels of $PM_{2.5}$ on either an annual or a 24-hour basis.
>
> Second, on page 30, concentrations of $PM_{2.5}$ were estimated from PM_{10} measurements, based on a conversion factor of 0.47-0.52, with an adjustment of 2 $\mu g/m^3$, for data prior to 2005. We note that when assessing potential health effects following this conversion from PM_{10} to $PM_{2.5}$, additional uncertainty is introduced into the analysis. This source of uncertainty should be acknowledged in the draft consultation. Furthermore, the available PM_{10} and $PM_{2.5}$ measurements were not taken from collocated monitors, but from different sites on the same day. These sites are much farther from potential PM sources than fence-line monitors, such as the one at Gerdau Ameristeel. Consequently, the ratio of $PM_{2.5}$ to PM_{10} should be lower nearer to a dust source. In high dust areas throughout Texas, it is not unusual to observe ratios of 0.3 or less.
>
> Therefore, the ATDSR estimated $PM_{2.5}$ levels are likely to be too high for some sites, such as the Gerdau Ameristeel fence-line site. Finally, dust concentrations decrease rapidly with distance from a source; fence-line measurements may significantly over-estimate concentrations that would occur even a relatively short distance away, on the order of a

tenth of a mile or more.

The document states “The Midlothian Health Consultation on volatile organic compounds and metals in media other than air reviewed the data available on soil and vegetation [ATSDR 2015c].” This referenced document has not been released for public comment yet, but it is being quoted in this document as final. This seems to be inappropriate, at a minimum the document should acknowledge they are quoting a draft document that has not been released for public comment yet.

Page 5: The document refers to vegetation sampling that occurred in 2004 by Chaparral Steel in fields south of the facility. However, there is no characterization provided for these fields. For instance, are these fields accessible by citizens, or are they private property? This is important to determine whether or not the potential for exposure would exist. No exposure equals no risk.

Page 12: The document references that a dog breeding facility adjacent to two industrial facilities “appears to have had a higher than normal rate of puppy loss since the late 1990s.” However, this is based on records provided by the breeder for 1993 through 2010, with the knowledge that the records are not complete. Drawing conclusions from incomplete data, and from only once source, is speculative at best.

Page 18: The document states “The Dallas-Fort Worth area has a high level of airborne allergens and air pollution, some of which comes from the industries in the Midlothian area.” The document does not quantify what “high level” means in this context. With statements like this, the document fails to put into context the overall air quality in Midlothian. Routine air monitoring by TCEQ (and its predecessor agency, TNRCC) began in the Midlothian area in 1981 and has continued through to the present time. Overall, the air monitoring data from the Midlothian area compose an impressively rich data set. Monitored air toxics concentrations in Midlothian are not only acceptable and in compliance with federal regulations, but are much lower than concentrations measured in many other areas of the nation.

Page 19 & 26: Page 19 refers to 9 veterinary teaching hospitals voluntarily contributing records to the VMDB database, but page 26 indicates the number as 6. This discrepancy should be corrected.

Page 23: The document states “There are numerous issues and considerations in collecting and analyzing chromium in human biological samples and the quantification of chromium is difficult and not well standardized [ATSDR 2012b].” Since this document is referring to animal data, and it appears as though the rest of this section refers to animals, did ATSDR mean to say “…in animal biological samples…” rather than human?