

Op-Ed Sent to Dallas Morning News on April 9, but not published

Real Facts About TCEQ, the EPA, Ozone Standards, and Science

In response to Tuesday's Dallas Morning News article on TCEQ and ozone, we would like to provide some factual scientific information. These facts form the basis of our professional judgment as scientists and regulators regarding the ozone standard.

Based on the scientific evidence, it is not clear that the existing ozone standard needs to be lowered. Human respiratory effects have not been consistently observed at levels of ozone below the current standard. In the few instances that effects that have been reported at lower levels of ozone, they are mild, temporary, and reversible. As Professor Thurston implied in Tuesday's article, this type of effect wouldn't be expected to pose a threat to a healthy individual. EPA's ozone analysis indicates minimal differences between sensitive individuals (such as asthmatics) and healthy individuals. In fact, the EPA analysis uses data collected in *healthy* individuals to estimate potential effects, based on the fact that differences between healthy and asthmatic people should be minimal.

The fact is that asthma diagnosis is on the rise, even though U.S. ozone levels are consistently lower than we've ever measured them. *Lower ozone levels are therefore not causing asthma cases to rise.*

The scientific record on the relationship between ozone and premature mortality is inconsistent. Some studies report statistical relationships between the two, while others do not. The EPA should not accept studies that show a relationship, but ignore studies that don't. This is especially true when there are legitimate scientific questions about some of the key studies used to support lowering a standard. For instance, the Jerrett et al. 2009 study was the first to report a relationship between long-term exposure to ozone and respiratory mortality. Other researchers 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 their smoking, diet, and obesity rates may well have changed over time, which would affect the results. Also surprisingly, increased mortality was not seen in areas with consistently high ozone levels, like Southern California. This means that the evidence is not strong enough to support a lower standard.

Perhaps more importantly, according to EPA's analysis, a lower standard wouldn't actually benefit all areas of the country. For some areas, including Houston, deaths are predicted to increase if the standard is lowered. This unusual result may be accurate (in which case this is extremely concerning), or it may be the result of errors in the modeling exercises conducted by EPA. Either way, when combined with the scientific

Op-Ed Sent to Dallas Morning News on April 9, but not published

evidence, it is not clear that a lower standard is needed and will benefit all citizens equally. EPA itself states "the mortality risk metric is generally not responsive to meeting the existing and alternative standard levels." Translated, that means lowering the standard is not expected to result in lower mortality.

There are many reasons why picking the right ozone standard matters. Public health and environmental agencies have limited resources. We shouldn't spend these limited 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 whatever the real cause of increasing asthma is. 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.