**FACT SHEET**
**Changes to Health-Based Values used to Review Air Permits and Air Monitoring Data**

Effects Screening Levels are chemical-specific air concentrations set to protect human health and welfare. Short-term ESLs are based on data concerning acute health effects, the potential for odors to be a nuisance, and effects on vegetation, while long-term ESLs are based on data concerning chronic health and vegetation effects. Health-based ESLs are set below levels where health effects would occur whereas welfare-based ESLs (odor and vegetation) are set based on effect threshold concentrations. The ESLs are screening levels, **not ambient air standards.** Originally, the same long- and short-term ESLs were used for both air permitting and air monitoring.

There are significant differences between performing health effect reviews of air permits using ESLs, and the various forms of ambient air monitoring data. The Toxicology Division is using the term "air monitoring comparison values" (AMCVs) in evaluations of air monitoring data in order to make more meaningful comparisons. "AMCVs" is a collective term and refers to all odor-, vegetative-, and health-based values used in reviewing air monitoring data. Similar to ESLs, AMCVs are chemical-specific air concentrations set to protect human health and welfare. Different terminology is appropriate because air *permitting* and air *monitoring* programs are different.

| **Differences between Air Permitting and Air Monitoring** | |
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| **Air Permitting** | **Air Monitoring** |
| Evaluates one chemical at a time | Evaluates multiple chemicals |
| Specific to one property | Multiple properties |
| Modeled short-term and long-term concentrations | Actual measured concentration - snapshot or continual average readings |
| Thousands of chemicals | Only about 120 chemicals |
| Need conservative screening values | Need predictive comparison values |

Because of these differences, the health-based ESL used in air permitting is 70% lower than the health-based reference value (ReV) used for air monitoring.

The short-term ESL is the lowest value of acute odor-, vegetation- and health-based ESLs. The long-term ESL is defined as the lowest value of chronic vegetation- or health-based ESLs. The ESL Published List used by facilities and air permit staff during the air permit review only provide the short- and long-term ESLs. Go to: https://www.tceq.texas.gov/toxicology/esl/list_main.html to download previous and current ESL lists for air permitting.

For air monitoring, the AMCV Published List should be used. Go to: https://www.tceq.texas.gov/toxicology/AirToxics.html to download the list of the odor-, vegetative-, and health-based AMCVs.

For more detailed information, see: *AMCV Document (https://www.tceq.texas.gov/downloads/toxicology/monitoring/amcv/esls_amcvs.pdf);*

Attachment A *Glossary;* Attachment B *Differences between Air Permitting and Air Monitoring*; and Attachment C *ESLs, ReVs and URFs in Air Permitting and Air Monitoring*