

Pearland Odor Complaints

Odor-related Health Effects Fact Sheet

March 16, 2017

- Official reports of the TCEQ's investigations of odor complaint incidents in West Pearland are posted on the City of Pearland public website at: <https://www.pearlandtx.gov/other-city-pages/west-pearland-air-quality>.
- While conducting surveys in residential areas during three of these investigations, investigators reported experiencing odor-related health effects. As documented in the investigation reports, the observed effects generally included nausea and/or headache:
 - During TCEQ Investigation No. 1290020 conducted November 24 to December 7, 2015, an investigator experienced nausea while making odor observations near Regents Bay Drive and Shadow Cove Drive.
 - During TCEQ Investigation No. 1342821 conducted June 23, 2016, an investigator experienced headache and nausea while making odor observations near the intersection of Hiram Clarke Road and McHard Road.
 - During TCEQ Investigation No. 1331231 conducted May 4 to August 18, 2016, an investigator experienced nausea while making odor observations near the intersection of Timber Ridge Drive and Leafwood Lane. A Notice of Enforcement for failure to prevent a nuisance condition was issued as a result of this investigation.
 - The indirect, odor-related health effects experienced by these investigators are consistent with the health effects described in complaints submitted to the TCEQ by area residents.
- During an on-site investigation at the landfill (TCEQ Investigation No. 1370033) conducted October 18 to November 10, 2016, investigators experienced direct health effects including headache, disorientation, irritation of the eyes, nose and throat, and numbness of the sinuses. These effects occurred while the investigators were working in the active operating areas within the facility perimeter, and subsided after they departed. This investigation resulted in a Notice of Enforcement for failing to follow required monitoring procedures.
- All of the odor-related health effects reported in the investigation narratives were reversible “transitory effects.” None of the affected investigators required medical treatment as a result of their exposure to the odors.
- The TCEQ deployed its Strategic Sampling Work Group (SSWG) in June 2016 to collect and analyze air samples at locations in and around the Shadow Creek Ranch subdivision. Although adverse health effects would not be expected to occur based on the data collected, the range of concentrations of hydrogen sulfide detected at several of the monitored locations could result in the perception of odors if exposure were to occur. The final report on this SSWG project is available on the City of Pearland's West Pearland Air Quality website at: <https://www.pearlandtx.gov/other-city-pages/west-pearland-air-quality>.
- Hydrogen sulfide, dimethyl sulfide, and mercaptans are naturally occurring gases that give the landfill gas mixture its rotten-egg odor. These gases produce a very strong rotten-egg smell—even at very low concentrations or may smell like natural gas. Of these three chemicals, hydrogen sulfide is emitted from landfills at the highest rates and concentrations. Hydrogen sulfide and other sulfur-based chemicals can be smelled at much lower concentrations than concentrations at which adverse health effects may occur. Odorous levels are not necessarily harmful levels.

- Additional information about odors and odor-related health effects is available on the TCEQ public website at: <http://www.tceq.texas.gov/toxicology/q-a/landfills>.