

# **-TCEQ TECHNICAL FACT SHEET-**

## *Tetrachloroethylene (perchloroethylene, PCE, “perc”)*

### **What is PCE?**

- < PCE is a man-made chemical used as a solvent and dry cleaning agent.
- < PCE is a common environmental contaminant that may be found in up to 25% of U.S. drinking water supplies.
- < PCE can persist in groundwater for years due to slow environmental breakdown.

### **How can I be exposed to PCE in my water?**

- < Ingestion of the water (likely the main route of exposure)
- < Volatilization of PCE from water during household uses
- < Skin contact with PCE in water

### **What are the health concerns with PCE?**

- < Work-related exposures to PCE may result in dizziness, headaches, irritation, and other health effects. These primarily occur when breathing high levels of PCE vapors. These types of health effects are not relevant to the PCE situation with the Jones Road plume which involves low levels of PCE in drinking water.
- < Long-term exposure to PCE in drinking water can be a health concern. At high enough levels, exposure to PCE may lead to an increased likelihood of liver or kidney disease and other effects. PCE is considered a “probable” human carcinogen based on studies where animals exposed to very high levels of PCE developed liver/kidney cancers. Humans exposed to the relatively low levels of PCE typical of the Jones Road plume are much less likely to be at risk of cancer.
- < Daily exposures to PCE for dry cleaner workers are often thousands of times higher than exposures related to the Jones Road PCE plume. Studies designed to determine if PCE has affected the health of these workers have been inconclusive. In some cases health effects were noted, although it was not possible to determine whether PCE or other chemicals were the cause.
- < The highest acceptable level of PCE in drinking water is 5 parts per billion (ppb). This is referred to as the maximum contaminant level (MCL) for PCE, and it is set at a stringent level to minimize the amount of PCE present in drinking water. Most Jones Road wells were below the 5 ppb MCL. Of those wells above the MCL, most exceedances were slight (5-10 ppm). However, all wells with PCE concentrations above the MCL received household water filters that can effectively address PCE concerns.

### **Are there medical tests that can be used to evaluate PCE exposures?**

- < Yes. In exposed persons, PCE may be measured in breath samples, blood, or urine. However, time is a big factor with low level exposures, and tests more than several days from the time of exposure are unlikely to be accurate or conclusive.