Description:
- Tetrachloroethene (PCE) is a manufactured chemical that is widely used for dry cleaning of fabrics and for metal-degreasing operations. It is also used as a starting material for making other chemicals and is used in some consumer products. In homes, it may be found in water repellants, silicone lubricants, spot removers, adhesives, and wood cleaners.
- Other names for tetrachloroethene include tetrachloroethylene, perchloroethylene, perc, perclene, and perchlor.
- PCE is a nonflammable liquid at room temperature. It evaporates easily into the air and has a sharp, sweet odor.

Environmental Impacts:
- Though it can easily evaporate, PCE can get into the soil or ground water, mostly because of spills and improper disposal. It may seep into soil and mix with ground water and contaminate well water.
- PCE can vaporize from a ground water source and travel through soil pores, rock fissures, and along utility pipes to enter buildings. This is referred to as “vapor intrusion.”
- Depending on the oxygen level of the ground water, microorganisms can break down PCE into different chemicals such as trichloroethene (TCE) and vinyl chloride (VC).
- Ensuring that PCE is used and disposed of properly protects public health and the environment.

Health Impacts:
- PCE exposure may occur through:
  - Drinking water from a ground water source contaminated with PCE.
  - Breathing air containing PCE vapors.
  - Skin contact if you handle PCE as a degreaser or spot remover.
- Health impacts depend upon how much, how long, how often, and by what way you are exposed.
- Breathing high levels of PCE may cause irritation of the upper respiratory tract and eyes, dizziness, headache, sleepiness, confusion, nausea, and difficulty in speaking and walking.
- Breathing very high levels of PCE for long periods of time may cause nerve, kidney, and liver damage.
- Drinking high concentrations of PCE for a long time may cause liver and kidney damage, harm the immune system and hematologic system, and may cause adverse effects on development and reproduction.
- Skin contact for a short period of time may cause a rash and skin irritation; prolonged or repeated exposure can cause drying and cracking of the skin with rash, redness, and blisters.
- The United States Environmental Protection Agency (U. S. EPA) classifies PCE as “likely to be carcinogenic to humans” as there is evidence that there is a link between exposure and cancer.
- Young children, the elderly, and people with chronic health conditions may be more at risk when exposed to PCE.

IDEM’s Role:
- The Indiana Department of Environmental Management (IDEM) is responsible for protecting human health and the environment while providing for safe industrial, agricultural, commercial, and governmental operations vital to a prosperous economy.
- IDEM’s Office of Water Quality enforces the federal drinking water standard for PCE which is five parts per billion (5 ppb). IDEM suggests that citizens stop drinking water containing more than 5 ppb of PCE.
- IDEM’s Office of Air Quality regulates the amount of PCE industries can release into outdoor air.
- IDEM’s Office of Land Quality regulates the disposal and cleanup of PCE.
Citizen’s Role:
There are actions every citizen can take to reduce their contribution or exposure to PCE:
• Follow the manufacturer’s label instructions when you use and dispose of products containing PCE.
• When you bring clothes home from the dry cleaners, clothes may release small amounts of PCE into the air, so keep them in a well-ventilated area.
• If you use a private well for your home water supply, routinely test the water to make sure it is safe to drink. For more information, please visit U.S. EPA’s website at www.epa.gov/privatewells/protect-your-homes-water.

Additional Information:
• For more information on PCE and vapor intrusion, please visit IDEM’s websites at www.idem.IN.gov/cleanups/2377.htm and www.idem.IN.gov/cleanups/2357.htm. Also, see the Agency for Toxic Substances and Disease Registry’s (ATSDR) website at www.atsdr.cdc.gov/toxfaqs/tfacts18.pdf
• Visit the Indiana Department of Health’s (IDOH) Environmental Public Health Division’s Indoor Air Quality program for more information on indoor air at www.isdh.IN.gov/24347.htm.
• For questions and concerns about PCE contamination or environmental cleanup, contact IDEM’s Office of Land Quality at 317-233-6593 or 800-451-6027.
• To report an accidental release or spill, call IDEM’s 24-Hour Spill Line at 888-233-7745.