

Frank Wear Cleaners Site, Yakima

Indoor Air Quality Assessment



The dry cleaning chemical tetrachloroethylene, known as PCE, was released from the former Frank Wear Cleaners in Yakima in the past, along with other dry cleaning chemicals. These chemicals have been found in soil, groundwater, and soil gas on the former dry cleaner property and on some nearby properties – breakdown products from these chemicals have also been found. Soil gas is gas or vapor that can collect in the open spaces between soil particles.

The Buckle My Shoe Early Learning Center is located next to the former dry cleaning facility. To see if chemicals released from the former dry cleaner facility are getting into the air at the childcare center, the Department of Ecology (Ecology) collected indoor air samples in September and October 2011. Ecology asked the state Department of Health to review the results of the indoor air sampling to see if there was a health threat to children and adults at the childcare center. This is a summary of the results of that health consultation.

What is a health consultation?

The Department of Health looked at a variety of information to see if the amount of chemicals found in indoor air at the childcare center poses a health threat for people if they breathe them in:

- The type of chemical (for example, PCE).
- How long a person may be exposed to the chemical.
- How much of the chemical a person may be exposed to.

What We Found

Information collected at the site suggests only a small amount of chemicals released from the former dry cleaning facility could be moving into indoor air at the Buckle My Shoe Early Learning Center. However, it's not clear whether chemicals in soil gas below the building are the only source of chemicals found inside. This is because products containing these chemicals (such as adhesives and bleach) were stored in the building during the time samples were taken.

The Department of Health looked at sample results to see if any of the chemicals were at levels that could cause health effects, including cancer. Because the childcare center first opened in July 2011 and Ecology plans to clean up the soil contamination in early 2012, state health looked at exposures that would occur for about one year.

After looking at all the information, the Department of Health concludes that breathing the highest amount of chemicals found in the indoor air at Buckle My Shoe Early Learning Center for approximately one year is not expected to harm the health of children attending, or adults working at, the childcare center.

Recommendations

Even though chemicals found in indoor air are not expected to harm people's health, the Department of Health recommends Ecology continue monitoring indoor air at the Buckle My Shoe Early Learning Center. This will help make sure chemicals in indoor air related to the Frank Wear Cleaners site do not increase in the future.

Next Steps

Ecology is planning to install a soil vapor extraction system in early 2012. This system is expected to reduce or eliminate the vapors below the Buckle My Shoe Early Learning Center building, which is expected to lower the level of chemicals in the indoor air in the building. Ecology also plans to test indoor air to confirm that the soil vapor extraction system is working as expected.

Information about Tetrachloroethylene (PCE)

Tetrachloroethylene (PCE) is a man-made chemical used for dry cleaning and metal degreasing. It is also used to make other chemicals and is used in some consumer products. It is a nonflammable liquid at room temperature and evaporates easily into the air.

For More Information

For human health information, contact the Washington State Department of Health.

Barbara Trejo

1-360-236-3373

Toll Free 1-877-485-7316

Barbara.Trejo@doh.wa.gov

The health consultation reports are posted at www.doh.wa.gov/consults.