

Union Pacific Railyard Public Health Report



Oregon Public Health Division's SHINE (Superfund Health Investigation and Education) Program has released a report evaluating the public health impact of groundwater contamination near the Union Pacific Railyard located in Northwest Eugene.

WHAT DID SHINE FIND?

- The levels of the chemicals trichloroethylene (TCE*) and tetrachloroethylene (PCE*) in the irrigation wells are not considered a public health hazard if water use is limited to irrigating gardens or to hosing off outside surfaces.
- TCE and PCE vapors from contaminated groundwater are making their way into the crawlspaces of homes in the Trainsong neighborhood. The levels of these vapors exceed health guidelines but not to a significant degree. Based on the data, SHINE does not expect residents to experience health effects from the PCE and TCE vapors.
- However, because action is needed to bring the PCE and TCE vapor levels to an acceptable level and prevent future exposures to residents in these homes, SHINE is calling this contamination a *public health hazard*.

Why did SHINE evaluate the Union Pacific Railyard?

SHINE received a request from the Oregon Toxics Alliance (OTA) and the Oregon Department of Environmental Quality (DEQ) to evaluate the public health impact of the Union Pacific Railroad railyard.

The railyard has operated continuously in North Eugene for more than 100 years. Work performed there included locomotive maintenance and fueling, railcar repair, wood treatment and a diesel shop. Industrial chemicals, including solvents such as TCE and PCE, from these activities were contained in the yard but have been detected in the groundwater of nearby neighborhoods.



Will I get sick from these chemicals?
SHINE has determined that the levels of PCE and TCE exceed health guidelines and that action is needed to reduce future exposures to these vapors. However, the levels are not high enough for SHINE to expect that residents will become sick from past exposure to VOCs in their homes.

Where can I find the full Union Pacific Railyard report?

You can download a copy of the full report at the website listed below or review at your local library. SHINE will be accepting comments on the report from the public until June 27, 2007.

Frequently Asked Questions

What is TCE and PCE?

Trichloroethylene (TCE) is a colorless liquid used mainly as a solvent to remove grease from metal parts. *Tetrachloroethylene* (PCE) is a manufactured chemical that is widely used for dry cleaning for fabrics and for metal-degreasing.

How do these chemicals get from the groundwater into the air in my home?

When chemicals below the ground vaporize or evaporate, the vapors move through the soil and collect in a home or building. This process, also called vapor intrusion, can occur from contamination in both soil and groundwater. VOCs are one group of chemicals that are particularly susceptible to the process.

What are Volatile Organic Compounds (VOCs)? A group of chemicals that contain organic carbon, and readily evaporate - changing from liquids to gases when exposed to air. VOCs are usually in products such as paint wastes, dry cleaning chemicals, furniture strippers, metal degreasers, and other solvents.

How can TCE and PCE affect my health?

The effects of PCE and TCE on human health depend greatly on how much one is exposed to, and the length and frequency of exposure. The levels of PCE and TCE found in the crawlspaces of some homes in Trainsong and River Road neighborhoods are relatively low. Breathing **small amounts** of TCE may cause headaches, lung irritation, dizziness, poor concentration, and difficulty concentration. Animal studies have shown that long-term exposure to PCE and TCE is connected to kidney and liver damage. Some studies have shown an association between PCE and TCE exposure and cancer.

What can I do to reduce exposures to TCE and PCE?

VOCs are found in many household products. While reducing vapor intrusion may not be a feasible option for many individuals, there are other ways to reduce VOC's in your home, and improve your indoor air quality. Here are some ways: Do not buy more chemicals than you need at a time. Look for products that contain low or no VOCs. Store unused chemicals in appropriate containers in a well-ventilated location. Don't make your home too air tight. Fresh air will help prevent build up of chemicals in the air.

If you have questions about the findings or would like more information, please contact:

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