

Union Pacific Railyard Public Health Report- Final

Oregon Public Health Division's Environmental Health Assessment Program (EHAP/ formerly known as SHINE) has completed a final report evaluating the public health impact of groundwater contamination near the Union Pacific Railyard located in Northwest Eugene.

WHAT DID EHAP CONCLUDE?*

- The levels of VOC vapors detected in crawlspaces samples collected at 11 locations tested between 2004 and 2006 exceeded health guidelines at median levels. The levels detected during these years are considered by EHAP to be a *past* public health hazard.
- Samples of vapor levels collected in April and August of 2007 were lower and no longer exceeded health guidelines. Until additional data shows that these levels are stable, EHAP considers the levels in these locations to be an *indeterminate* public health hazard.
- 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.

*Please see full report for complete list of conclusions and recommendations.

Why did EHAP evaluate the Union Pacific Railyard?

EHAP 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. EHAP's primary functions are to assess environmental health risks at sites and make recommendations to reduce exposures.



Why did EHAP's conclusions change from the draft report?

Since the initial health assessment was conducted in the Spring of 2007, more crawlspace data have been collected. These data indicate an apparent drop in the levels of vapors detected in homes. The levels found in the most recent data collection efforts do not pose a health threat. However, to ensure that the levels are stable in posing no health threat, EHAP is recommending that additional groundwater vapor samples be taken. EHAP will then review and evaluate these additional data.

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 the Trainsong neighborhood 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.

Where can I find the full Union Pacific Railyard report?

You can download a copy of the full report at <http://oregon.gov/DHS/ph/shine/uprrsite.shtml> or see below for whom to contact to request a paper copy.

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

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