The Washington State Department of Health has completed a health consultation report that addresses Fruit Valley neighborhood concerns about the health risks posed by indoor air solvent levels found through February 2007 in some homes located above a plume of solvent-contaminated groundwater. The solvent contaminated groundwater is associated with past releases of trichloroethylene (TCE) from the Cadet Manufacturing Company (Cadet) and the former Swan Manufacturing Company (Swan) sites, located in Vancouver.

Much of the information included in the health consultation report was presented to the community during the March 6, 2007, public meeting held at the Fruit Valley Elementary School. The report also contains some new information, including the results of an epidemiological study conducted by the state health department. The study compares cancer rates in Clark County and across Washington with cancer rates in the portion of the Fruit Valley neighborhood where solvent-contaminated groundwater has been found. The study was done to address health concerns raised by residents at the March 2007 public meeting.

**Background**

The solvent TCE was used at the Swan and Cadet properties in the past for cleaning metal parts prior to painting. TCE is often contaminated with other solvents like tetrachloroethylene (PCE). Solvents are part of a group of chemicals known as volatile organic compounds, or VOCs. Volatile organic compounds evaporate easily into the air.

The Cadet and Swan sites, and the portion of the Fruit Valley residential area where the solvent contaminated groundwater has been found, are shown in the photo below.

Fruit Valley neighborhood residents get their drinking water from the City of Vancouver. The drinking water is not affected by the contamination from the Cadet or Swan sites. However, environmental studies conducted by Cadet and the Port of Vancouver, which are being monitored by the Washington Department of Ecology, show that solvents found in shallow groundwater are...
evaporating and moving up through soil and entering some neighborhood homes. Based on indoor air testing, the solvents that are entering these homes are at low levels that are often similar to levels found in outdoor air.

A small amount of the solvents might also be entering outdoor air. However, outdoor air testing suggests that if this is happening, the solvents are quickly diluted by outdoor air.

**Health Consultation Report Summary**

The Department of Health used a multi-step health evaluation process to determine whether the solvent levels found in indoor air in Fruit Valley area homes would be expected to make people sick. This included comparing indoor air solvent levels to levels of solvent that are considered not to pose a health risk as well as to solvent levels that have been found to make people sick. In addition to that work, the health department looked at long term health risks associated with exposure to multiple solvents. As a result, the Department of Health has determined that the levels of chemicals found in indoor air in the Fruit Valley neighborhood through February 2007 are not expected to make people sick.

Although the levels of solvent found in indoor air are not expected to make people sick, some of these levels could, in theory, pose a very low cancer risk. A very low cancer risk does not mean people will get sick; it means that the risk of getting cancer could be slightly increased. That cancer risk, however, could be as low as zero.

The Port of Vancouver is taking actions to reduce or eliminate these very low cancer risks in accordance with the Washington State Model Toxics Control Act cleanup regulation. This work is being monitored by the Department of Ecology. The actions include groundwater cleanup, vapor extraction, and operation of soil vapor vacuum systems in six homes.

The Department of Health also conducted an epidemiological study to evaluate whether residents in the Fruit Valley neighborhood where the solvent contaminated groundwater is located had different rates of cancer than the rest of Clark County or the state. The study found:

- There were very few observed cases of cancer in the Fruit Valley neighborhood that might possibly be attributed to exposure to TCE and related compounds.
- The observed numbers of cancer that might possibly be attributed to exposure to TCE and related compounds in the Fruit Valley neighborhood are not significantly different from what is observed across Washington.
- The total number of all types of cancers found in the Fruit Valley neighborhood is significantly lower than the cancer incidence rate for Washington.
- No significant clusters for cancer that might possibly be attributed to exposure to TCE and related compounds were found in the Fruit Valley neighborhood.

**Actions residents can take to reduce or eliminate potential exposures to groundwater contaminants that might enter homes**

Do not close or block basement or crawlspace vents. Air circulation will help dilute solvents if they enter basements or crawlspaces and reduce the levels that might get into living spaces.

A copy of the health consultation report is available on the Department of Health Site Assessment website (http://www.doh.wa.gov/consults). Paper copies of the report are also available at Vancouver Regional Library at 1007 E. Mill Plain Boulevard or can be requested from the state health department.

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