# Industrial solvent TCE even more dangerous to people

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One of the most widespread groundwater contaminants in the nation is more dangerous to humans than earlier thought, a federal agency has determined, in a decision that could raise the cost of cleanups nationwide, including large areas of the San Fernando and San Gabriel valleys.

The final risk assessment for trichloroethylene by the Environmental Protection Agency found that the widely used industrial solvent causes kidney and liver cancer, lymphoma and other health problems. That lays the groundwork to re-evaluate the federal drinking-water standard for the contaminant: 5 parts per billion in water, and 1 microgram per cubic meter in air, officials said.

Paul Anastas, assistant administrator for the EPA's office of research and development, said toxicity values for TCE reported in the risk assessment released this week may be used to establish new cleanup strategies at 761 Superfund sites, as well as in aquifers supplying drinking water to millions of residents in the San Gabriel and San Fernando valleys.

The risk assessment had been subject to more than a decade of delays. A 2001 draft assessment that suggested a strong link between TCE and cancer was opposed by the Defense Department, the Energy Department and NASA.

The Pentagon had demanded greater proof that industrial substances

cause cancer before raising cleanup costs at more than 1,000 polluted sites.

"This risk assessment is a big deal because it will strengthen protections for people who live and work above TCE plumes - and there are a lot of them - and could force serious rethinking about the extent of cleanup efforts," said Lenny Siegal, executive director of the Mountain View, Calif.-based Center for Public Environmental Oversight, which posted a letter Monday signed by activists across the country, demanding that the final risk assessment be released. It was released Wednesday.

Jennifer Sass, senior scientist at the Natural Resources Defense Council, said the decision "launches new arguments about what the safety standards should be. In the meantime, people impacted by this pollution can now link their disease to it in litigation with more confidence because the science is no longer in dispute. TCE causes cancer."

TCE has been discovered in nearly every state but in none more widely than California. Military bases including Camp Pendleton and Edwards Air Force Base have Superfund sites with TCE contamination.

The Los Angeles metropolitan area overlies a checkerboard of underground plumes of TCE, and has high ambient levels of the chemical in the air. More than 30 square miles of the San Gabriel Valley lie in one of four Superfund sites that contain TCE. The San Fernando Valley overlies a large plume grouped into three separate Superfund sites. The former Marine Corps Air Station El Toro in Orange County sits over a plume several miles long.

Developed by chemists in the late 19th century, TCE was widely used after World War II to degrease metal and electronic parts, and then dumped into nearby disposal pits and storage tanks at industrial plants and military bases, where it seeped into aquifers.

The public can be exposed to TCE in several ways, including by showering in contaminated water and by breathing air in homes where TCE vapors have intruded from the soil. TCE's movement from contaminated groundwater and soil into the indoor air of overlying buildings is a major concern.

"Vapor intrusion represents toxic exposure which is continuous and difficult to avoid," Siegal said. "It's not like you can live on bottled air in your own home or school."