

January 31, 2003

# E.P.A. Takes Second Look at Many Superfund Sites

By MATT RICHTEL

**S**AN FRANCISCO, Jan. 30 — After bringing hundreds of polluted sites into compliance with regulatory standards in the last decade, the Environmental Protection Agency has learned that a contaminant found at many of those sites may be more harmful than previously thought. As a result, the agency is scrambling to re-evaluate its cleanup efforts.

In Silicon Valley, where the E.P.A. is focusing its initial checks, one house has already been fitted with new ventilation to prevent the buildup of gases from the residue of the contaminant, a powerful solvent used to clean electronic components, particularly computer microprocessors.

The contaminant, trichloroethylene, or TCE, has for years been known to cause cancer as well as respiratory, liver and lung damage. But in December, the environmental agency published new research concluding that it was 5 to 65 times as toxic as previously thought, with pregnant women and other sensitive populations being most at risk.

Elizabeth Adams, the acting branch chief at the agency's Superfund division for several Western states, including California, said there was concern that the contaminant might be making its way into the air in unsafe amounts.

"If there are buildings over shallow groundwater, there's a potential for vapors to move from the soil and collect inside buildings," Ms. Adams said. "There is not a short-term risk, but we want to make sure there's no long-term risk."

Ms. Adams said the agency faced a significant task, however, because of the sheer number of sites involved. Of the nation's 1,499 Superfund sites — cleaned, not yet cleaned or in various stages of cleanup — one-third to one-half are contaminated with TCE, she said, and regional E.P.A. officials around the country have been told to explore the problem. She said she did not know how many of the sites now had houses or businesses built on them.

The finding of added toxicity will "reopen a lot of different sites" to cleanup, said Lenny Siegel, executive director of the Center for Public Environmental Oversight, a watchdog group in Mountain

View, Calif., in the heart of Silicon Valley. "Cleanups have been implemented or on their way to being implemented based on the old standard."

The E.P.A. has focused initially on Silicon Valley not only because of the solvent's common use as a microprocessor cleaner but also because the area has a high concentration of shallow groundwater. The drinking-water supply is not considered under threat, but there is a concern about the chemical's vaporizing out of the groundwater and perhaps being drawn into homes and businesses.

That can happen naturally. But part of the problem may lie in existing cleanup procedures, which entail using machines that absorb groundwater and process it to remove TCE. The resulting vapor emitted by the machines has traces of the chemical, though until the new research was published, the amount was not considered harmful. Ms. Adams said that among other things, regional E.P.A. officials were evaluating whether the volume of the chemical given off by the machines at various sites was still considered safe.

Four sites are being examined in Silicon Valley. Three, including Moffett Federal Airfield, a former Navy base, are Superfund sites. The other, formerly home to an electronics and communications equipment plant of GTE Government Systems, is being cleaned up under another federal effort, authorized by the Resource Conservation and Recovery Act.

Three housing developments built in the mid-1990's now lie on this other, 60-acre site. Ms. Adams said the environmental agency had taken samples at seven houses there and found that the TCE level at one exceeded standards that the agency has proposed as a result of the new research.

A second site, contaminated during the 1960's and 1970's by companies including Intel, Raytheon and Fairchild, is now home to commercial developments whose tenants include Netscape, Nokia and Veritas, E.P.A. officials said. Tests there are continuing.

At Moffett Federal Airfield, now a NASA property, the Navy took groundwater and soil samples this month, and in several vacant houses found TCE in excess of the environmental agency's proposed new standards. The Navy has not yet looked at the TCE levels in houses that the military is still using there. The service is concerned that the results of such tests could be skewed by the residents' use of household cleaning products, said Lawrence Lansdale, a Navy environmental coordinator.

Complicating matters, Mr. Lansdale said, is that no TCE was found in the groundwater beneath some vacant houses in which the chemical was discovered. He said this raised a possibility that the contaminant had been spread from some other source, though he declined to speculate as to what that might have been.