

State finds toxic-vapor danger at Sunnysvale, Santa Clara sites

SAN JOSE Mercury
4/20/91

By Scott Thurm
Mercury News Staff Writer

Toxic chemicals leaking from buried tanks near at least two South Bay waste sites may be evaporating under nearby homes and threatening residents' long-term health, according to new state-studies.

Computer simulations on the Sunnysvale and Santa Clara sites show vapors from industrial solvents can accumulate inside homes at levels that increase residents' chances of developing cancer by a small but measurable amount.

Tests of how much of the pollut-

Fumes from underground sources are a new concern for health officials.

ants reach the surface could change officials' view of the threat posed by many of the area's hundreds of leaking tanks. Until now, the leaks were not viewed as immediate dangers because the contaminants generally are confined to groundwater that is not used. But fumes provide another route by which people could be exposed to the dangerous chemicals.

"We thought we knew the answer" to the threat posed by the leaking tanks, said Steve Morse, who supervises the cleanup of South Bay waste sites for the San Francisco Bay Regional Water Quality Control Board.

"Now we have a scenario that maybe we ought to look at this

See LEAKS, Back Page

Extent unknown

It's unclear how many other leaking tanks may pose similar health threats in the Bay Area. Officials say the circumstances in Sunnysvale — high levels of contaminants in groundwater fairly close to the surface that spread far off-site and under homes — are relatively unusual.

Using the computer model, officials have estimated the risks to people living near about a dozen other sites on the federal Superfund list. The model predicted that only one — a National Semiconductor plant in Santa Clara — would pose a similar threat.

But Morse said many of the computer runs will have to be repeated with more recent information. "We're going to look at this more rigorously," he said.

New tests planned

When officials tested the vapors that actually were coming out of the ground in both Sunnysvale and Santa Clara, they found lower concentrations than the models predicted. But the Sunnysvale tests were done on a cold, rainy day when evaporation was likely to have been limited; they will be repeated later on a hot day. Late this month, officials will test for vapors inside a former Sunnysvale school that now houses several preschool programs.

Local officials have resisted indoor tests because, they said, vapors from ordinary products — such as glues, carpeting and wall coverings — can mask the evaporating underground chemicals. But Crawshaw, the Massachusetts consultant, said proper tests can isolate the vapors coming from underground.

Although much will depend on the test results, officials said the local cases probably will not require the venting systems installed in Massachusetts. They said the

pumping and treating of groundwater required at nearly every contamination site should also reduce the threat from the vapors.

Pumping normally reduces contamination levels by about 90 percent in five years, said Marilyn Underwood, a toxicologist for the state Department of Health Services. Pumping began on a portion of the Sunnysvale site in 1982, and Underwood said, "Within a few years, I expect (pollutant levels at) this site to decline."

But the head of a citizens group said the vapors will increase pressure for speedier cleanups. "I don't think people are going to be as complacent about hearing 300 years to clean things up," said Ted Smith, executive director of the Silicon Valley Toxics Coalition.

In particular, Smith said, vapors that pose health risks could make it harder for some people to sell their homes. Noting that transfers of commercial property frequently are delayed or canceled because of toxic contamination, he said, "If that has an impact on residential sales, you're going to have people real unhappy."

Earlier studies of the threats posed by leaking tanks did not include the vapors. Scientists say that's because the movement of the pollutants — and the ways people can be exposed to them — still are not understood well.

"I think what you're seeing is the evolution of the art and the science of risk assessment," said Jim Hansen, who runs the Superfund program at the U.S. Environmental Protection Agency office in San Francisco.

As recently as three years ago, Hansen said, "not in a million years would I have thought we have significant vaporization of gases through the soil into living space. Now we have the technical knowledge to put the pieces together."