

CITY BEAT

Middlefield-Ellis-Whisman Superfund site still raises questions

Pollution goes from ground water into air

By Justin Schock

At the Netscape facility on Whisman Road, the toxic legacy of Silicon Valley's birth is pumped out of the ground and into the air, right outside someone's office window.

The ground water beneath the Netscape buildings contains high concentrations of toxic solvents that are known to cause cancer, neurological ailments, and other health problems. The concentrations are so high that the Environmental Protection Agency (EPA) designated the area a "Superfund" site in 1991.

The contamination in the area is treated by "air stripping," a cleaning method that entails pumping the water out of the ground and into a tank on a raised tower, where chemicals evaporate out of the water and into the air.

While this cleanup method was approved 10 years ago by the EPA, there is apparently no system in effect to monitor the amount of toxic chemicals being released from the tower.

According to Alana Lee, the EPA project manager for the site, the air stripper on the Netscape campus was constructed in 1989, and because of a grandfather clause, is permitted to emit 24 pounds per day of toxic material.

The current limit for air strippers is 1 pound per day.

Lee said the private contractor who operates the air stripper claims to emit "about 1.2 pounds per day." But she said, "they're not required to do any monitoring" because of their high emissions limit.

Lee said the emission of chemicals from the air stripper "does not pose a significant risk," adding that the Bay Area Air Quality Management District is responsible for determining emission levels and issuing permits for the air strippers.

However, Lucia Libretti, a spokesperson for the Air Quality District, said, "If something is going on through Superfund, it is not (given a permit) through us."

Libretti said the district had issued a permit to Fairchild to use a carbon filtration system from 1991 to 1995, and again in 1997, but there is currently no permit for a filtration or air-stripping system. She said emissions should be monitored by the EPA.

The tower on the Netscape campus is just one part of a large and complex system that has been constructed to clean the soil and ground water polluted by the semiconductor companies that brought silicon to the valley decades ago.

The contamination stretches from its starting point, in the Middlefield-Ellis-Whisman (MEW) area, over a mile, flow-

ing in an underground river beneath Moffett Field and from there on into the Bay.

The Superfund law requires that the companies responsible for the contamination pay to clean it up. According to Lee, the companies paying for the cleanup include Intel Corp., Fairchild Semiconductor, Raytheon, General Semiconductor, Mitsubishi Silicon America, NEC Electronics, Siemens Microelectric, and Union Carbide.

These companies, which have moved out of the area, used dangerous chlorinated solvents, principally trichloroethylene (TCE) in the manufacture of computer components. The chemicals were stored in underground tanks, many of which leaked.

Upon discovery of the pollution in 1981, the EPA began to take action to have the responsible parties pay to clean the site. By 1989, a treatment system was constructed to filter the chemicals out of the ground water.

"When the EPA made the decision to remedy this, we gave the responsible companies two choices: they could filter the water through carbon, or the other option was air stripping," said Lee.

Ted Smith, director of the Silicon Valley Toxics Coalition, a nonprofit group that monitors toxic pollution in the Valley, said Tuesday that the companies chose air stripping because it was cheaper than carbon filtration. Air stripping "is sort of a second-rate cleanup technology," Smith said. "They're transferring the chemicals from the ground to the air."

Jim McClure, an engineer contracted by the companies to work on the cleanup, and Fred Banker, who represents the companies, said their employers would not allow them to speak to the media. Banker would not say what his position was in the cleanup, although McClure referred to him as the "senior representative."

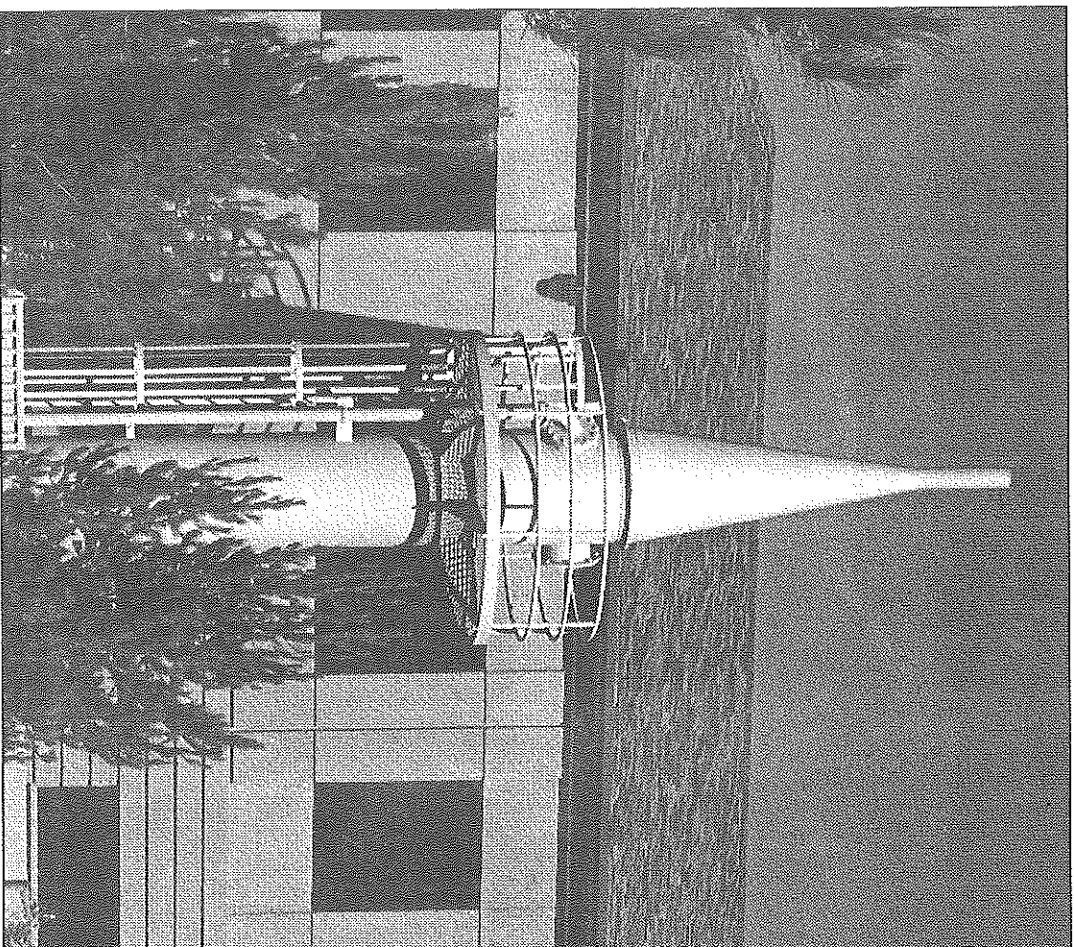
"I'm under a pretty stringent confidentiality agreement about the cleanup," Banker said.

Smith said, "There's been a lot of changeover and not a lot of continuity (within the monitoring groups), and that's why a lot of these things fall through the cracks."

"When the area wasn't so highly populated, I wasn't paying so much attention to" the cleanup, he added. But when he realized that an air-stripping tower was adjacent to the Netscape building, Smith said he became concerned about the pollution being released into the air.

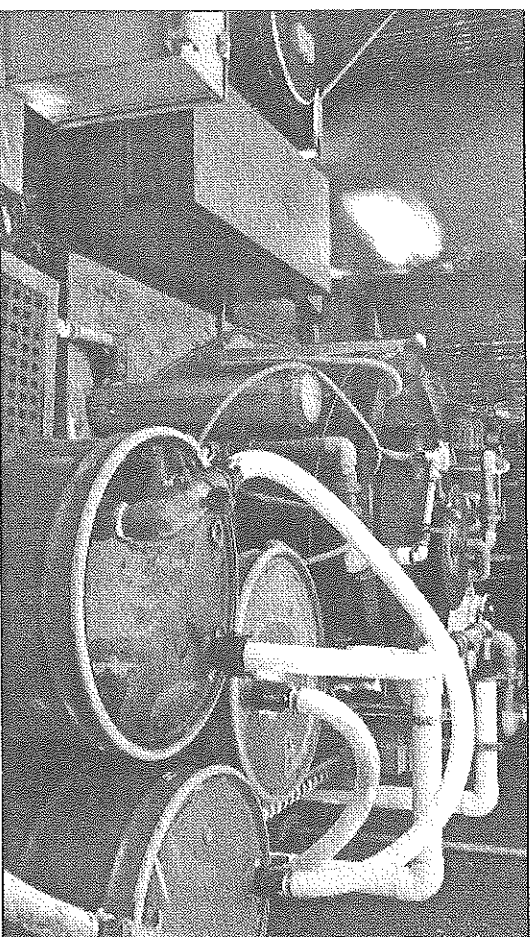
"There have been no studies done on the effects this combination of chemicals has on people when they breathe them in," Smith said.

According to Smith, the chemicals that



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Elements of the ground water cleanup system for the Middlefield-Ellis-Whisman Superfund site include an air-stripping tower on Netscape's campus at 369 N. Whisman Rd. (above) and a pumping station at the company's campus at 501 E. Middlefield Rd.



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cause the greatest problems in the area are TCE and the chemicals it produces as it breaks down: dichloroethylene and vinyl chloride. These are more toxic than TCE, and harder to remove. They combine with other pollutants, including the solvent toluene.

"This has been a real problem. It's been one of the most complicated and difficult sites in the Valley. The contamination was discovered in '81, but the cleanup didn't begin until '89," Smith said. "People dragged their feet and tried to get out from their responsibilities. As a result, (the chemicals) really spread 6,000 to 9,000 feet. That's over a mile."

When the cleanup was initially planned in the mid-1980s, EPA officials estimated that it would take 300 years to return the ground water to the state it was in before

the pollution. However, Lee said, with new technology that estimate is now down to "about 80 years."

The issue of the MEW Superfund site has come up in questions about Moffett Field redevelopment.

According to Sandy Olliges, a NASA official who oversees environmental issues at the base, the pollution from the MEW site, on its way toward the Bay, moves beneath Moffett Field, and mixes with other pollutants, including solvents and petroleum, from old Navy and NASA operations.

"The cleanup is currently underway, and there's regular monitoring of the ground water, and that sort of thing," said Olliges. She said that, at this point, Moffett is clean enough for "any use other than residential uses." ■