

Toxic Suits Pile Up in Silicon Valley

By Bill Soiffer

Lisa Kane suffered three miscarriages while employed as a computer chip production line worker in Silicon Valley, but gave birth to two normal children after leaving her job. She learned later she had been exposed at work to xylene fumes, a known cause of reproductive disorders.

Laura Guidicatti lost nearly all her hair while working with acids and other toxic chemicals over a six-month period on the computer chip production line in Silicon Valley. When she was transferred off the line, her hair grew back.

Anita Zimmerman recalls numerous chlorine leaks at the Silicon Valley firm where she worked. Once, she said, 25 workers were sent by taxicab for emergency medical treatment. Now she claims the leaks have left her with chronic asthma and struggling for breath.

These women thought they were in a "clean industry" when they went to work in Silicon Valley. But now, amid mounting lawsuits, their stories are typical of a growing concern over workplace hazards at semiconductor firms that use toxic gases and chemicals.

One recent development that heightened the criticism was a lawsuit filed by the family of a former National Semiconductor Corp. employee who died. The suit charges that Noemi Sanchez, 35, was poisoned by chemicals on the job.

A spokeswoman for National Semiconductor said yesterday the company would not comment while the case is in litigation.

"Workers and the general population are being exposed to some of the most deadly chemicals that have ever been synthesized," said Ted Smith of the Silicon

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Valley Toxics Coalition, an environmental watchdog group.

The threat posed by the nuclear power industry is "obviously greater, but they recognized that and located their plants away from major population areas. These (computer chip) plants are in everybody's back yard," he said.

Industry officials insist, however, that workers are protected with state-of-the-art equipment and point to a low injury and illness rate. Sheila Sandow of the Semiconductor Industry Association said it "may be true" that the health scares are coming from groups eager to unionize the industry, and argues that the industry has maintained its clean image.



Photos by Mike Maloney

ANITA ZIMMERMAN FILED SUIT Chronic asthma followed the chlorine leaks

"We've said from the beginning that the chemicals we use are toxic and present potential dangers," Sandow said. Workers are equipped with protective clothing and given intensive instruction about safety. Ventilation hoods on the production line absorb fumes and electronic sensors are usually installed to detect unsafe levels of gases, she said.

But Dr. Joseph LaDou, acting chief of the Division of Occupational and Environmental Medicine at the University of California in San Francisco, said that regardless of safety precautions, the industry's clean reputation is deceiving.

He said company health and safety records indicate the industry has a high incidence of occupational illness. In 1980, a state Department of Industrial Relations survey found that the industry had 1.3 illnesses per 100 workers, compared with 0.4 per 100 workers for general manufacturing industries — or more than three times as many.

"Some health and safety professionals are particularly concerned about the effects of (toxic) materials on the reproductive health of the industry's largely female workforce, many of whom are of childbearing age," LaDou wrote in a recent report.

Workers often complain about the effects of chemical solvents and acid baths used to clean the chips. They are exposed to gases such as arsine, phosphene and diboron that can be lethal at high levels. One state survey of 42 Silicon Valley companies found they collec-

tively used 2 million gallons of acids and 500,000 gallons of solvents annually. Use of toxic gases by some of the 42 firms amounted to 1.5 million cubic feet a year.

Judy Washington claimed her exposure to toxic gases on the chip assembly line made her feel continually light-headed and nauseated. Once, she fainted over a microscope. Now she claims her job has caused her to feel dizzy around household cleaners, bleach and gas-line fumes.

"The long-term effects of these exposures are little understood. It can cause subtle, irreversible damage," said Amanda Hawes, a San Jose lawyer specializing in workers' compensation lawsuits against Silicon Valley firms.

Hawes, who is currently handling 59 claims against Silicon Valley firms, said new cases are coming in at the rate of one a week. "The most typical cases we see are problems with solvent exposure, respiratory problems, memory loss and chronic headaches," she said.

According to Hawes, Advanced Micro Devices in Sunnyvale, one of the largest chip producers, had 18 evacuations of a chip fabrication area of its plant over an eight-month period.

The Santa Clara Center for Occupational Health and Safety, a labor group, has begun "rap sessions" for disabled workers. The center said some workers claim they would have been fired if they complained about toxic smells. Others said that companies did not always tell workers when they had been exposed.

Zimmerman, a Silicon Valley worker who is suing over chronic asthma, claims she was taken to a private medical clinic that depends on industry referrals for business, received a prescription for cough syrup and was told to gargle with warm sugar water. After a day's absence, she returned to work. But she said the gas leaks persisted, and her respiratory problems worsened until she had to spend five days in a hospital.

Last November, about 25 workers picketed the California Industrial Medical Clinic in Santa Clara, waving signs with such messages as "You get richer, we get sicker" and "Chemicals hurt." The demonstrators claimed that doctors at the industry-supported clinic often sent patients back to work too soon and were less than explicit with them about risks on the job.

"We believe a county-run clinic would be more independent than the private, for-profit industrial clinics and could take a more active role in tracking and publicizing the causes of on-the-job illness in Silicon Valley," said Pat Lamborn, director of the Santa Clara Center for Occupational Safety and Health, which organized the protest.

Lamborn said the group is lobbying the Santa Clara County Board of Supervisors to establish an industrial clinic at the county hospital.

The question of whether semiconductor workers suffer from a high rate of illness and injury has split state officials who offer different interpretations of murky statistics.

"It's probably one of the cleanest industries



JUDY WASHINGTON COMPLAINED OF DIZZINESS She said she was exposed to toxic gases

around," said Russell Umbraco, the San Jose district supervisor for the California Division of Occupational Safety and Health. "They do use very toxic gases and chemicals, but they have put in state-of-the-art protective devices."

Umbraco sides with industry, which touts a clean bill of health from the U.S. Bureau of Labor Statistics. The bureau's latest available figures show that in 1982 semiconductor workers had the third lowest injury and illness rate among 229 durable goods industries.

But labor advocates persist that the industry is playing a "semantics game" in the ways "illness" and "injury" are defined.

Two years ago state officials noticed an abrupt decline in the rate of illness among semiconductor workers. An investigation by the California Department of Industrial Relations determined that semiconductor firms had changed the way records were kept.

Karen Jones, a state industrial relations statistician, said that one-time events like minor burns and inhalation cases were recorded as an "injury," not an "illness," even if the worker showed symptoms of chemical exposure.

In most industries, injuries far exceed illnesses, said Jones. By combining the two reports, she said, people are given the impression that "the semiconductor industry has a very low hazard rate."

Jones said the definitions of illness and injury have been revised, but not to her satisfaction. All sides seem to agree that it is still easy for a biased interpretation of statistics to occur.