

Weather

Today: Foggy, maybe even drizzly this morning, then fair.
Tomorrow: Normal low clouds, then clearing by afternoon.
Rain in the Sierra?
Details/Page B-7

San Francisco Examiner

Final edition

If your paper is late or missing or you have delivery questions, please call (415) 777-7800 in San Francisco or the number listed for your community in your local phone directory.

\$1.00

Sunday, August 10, 1986

★★★★★

Deadly gas stored next door to South Bay homes

By Jane Kay

(EXAMINER ENVIRONMENTAL WRITER)

MOUNTAIN VIEW — Across the street from a company that packages canisters of deadly gases potent enough to kill people blocks away within minutes of a leak, children splash in a front-yard plastic swimming pool.

Next door to the children, David Noble, for seven years a resident in the comfortable green-lawn neighborhood that bor-

ders on the clean industrial park, says no one from Air Products and Chemicals Co. has ever approached his family about the possibility of an accident or evacuation.

Yet firefighters and occupational health experts say that considering the large volumes of gases used in the semiconductor industry, an accident is not only possible but can be expected.

Mountain View is one of a dozen Bay Area cities that are home to companies that either supply or commonly use the toxic

gases arsine, phosphine, diborane, germane, boron trichloride, hydrogen chloride and chlorine in increasing quantities every year.

And no community is adequately prepared to handle a major disaster that would result from the rupture of a metal cylinder containing arsine gas, according to a recently released report.

To meet the need, a model ordinance that would bring tighter controls on the storage and handling of toxic gas is being

written by firefighters, including two Ph.D. chemists in the Silicon Valley.

Noble says he has never had any problems or noticed any odors from the Mountain View plant at 405 Whisman St.: "All we get is a terrific smell of garlic from Gilroy."

But the smell could be caused by a very low release from across the street of arsine gas, the most toxic form of arsenic, and not from Gilroy, more than 25 miles away.

The chief of meteorology at the Bay Area Air Quality Management District said

he has never heard anyone even speculate about the Gilroy garlic odor reaching Mountain View. The farthest north it's been tracked is at the IBM plant in south San Jose, he said.

Officials at Air Products, one of the major suppliers of compressed gas to the semiconductor industry, including Rich Steiner, district manager at Mountain View, were unavailable to discuss plant safety. A

— See GAS, back page

LIFE

—From A-1

duction company," said Richard Wallett, a motorcycle cop and 15-year SFPD vet who was sharing duty at 18th and Missouri.

"Like in L.A., they hire retired cops and use the same ones all the time. They develop a rapport, so production companies tend to get to do whatever they want (on the city streets)," he said. "Here, if they want to close a street or do some special stunts, they have to go through the mayor's office."

Each year about 200 film permits are issued by the mayor's motion picture coordinator, Robin Eickman. "There is something going on almost every day in town," she said. Consequently, the city everybody loves to film can afford to call the shots, so to speak.

"A lot of cities—and states are very aggressive about attracting the film industry. They'll close down freeways, anything, to get a company to make a movie in their town," said "Burglar's" executive producer, Tom Jacobson. "But San Francisco has successfully been able to tread the boundary between serving its citizens and the motion picture industry. I've had nothing but good experiences here."

On the Potrero Hill set, Wallett noticed a clump of crew members kneeling in the middle of Missouri Street. They were trying to plant a camera on the pavement.

"Uh-oh," he said and walked over to the clump. A moment later, he signaled for bright orange traffic cones to be placed around the camera.

"These people are all right, really," said Wallett of the film crew. "But they're supposed to tell us when they do things like that, putting a camera in the middle of the street. I had a run-in the other day with their first-unit transportation crew because they were driving these big trucks the wrong way up California Street. That just doesn't cut it, you know?"

And so it goes on the movie detail. Usually for 12 to 14 hours at a time. Often in the wind and fog.

"It's just another outside job to us," said Cardenas, watching the rush-hour traffic (such as it is) crawl through 18th and Missouri.

"Mel does this because he's trying to buy a house," said Fontana. "I do it because I've got two kids who'll be going to college some day. We do it for the money."

But isn't there any Hollywood glamour to the job?

"Oh, it's nice when some big-wig movie star turns around and says, 'Thank you,'" said Fontana. "But that doesn't happen too often."

"Clint Eastwood's pretty good," Cardenas reminded.

"Yeah, he likes cops," said Fontana. "And what's that girl who played Wonder Woman? Lynda Carter. She's one of them who turns around and says, 'Hello, officer. How are you?'"

Well. It beats "Are you real?"

GAS

—From A-1

spokesman did say, however, that the company considered safety "a critical issue" and would address the matter, including its plans, later this week.

While some minute concentrations of arsine are allowed under occupational standards, a canister leak could be disastrous, industry and health officials agree.

A compressed gas cylinder containing 200 cubic feet of 10 percent arsine gas that was accidentally vented to the environment would create 10,000 cubic feet of lethal gas for about 10 minutes.

The amount of fresh air needed to dilute the release of a small 20-pound cylinder of phosphine gas to a safe level would cover 276 city blocks and be 10 feet high.

"No industry in history has created so great a demand for arsine gas as the semiconductor industry, yet the risk to communities and workers is seldom discussed with candor," Dr. Joseph LaDou, acting chief of the Division of Occupational Medicine at UC-San Francisco School of Medicine, said in a recently published paper.

Four years ago, LaDou, then concerned about a potential for a large-scale calamity, estimated that nearly 70,000 cubic feet of arsine had been delivered that year to Santa Clara County businesses.

Two doctors, Peter Wald and

Charles E. Becker, who studied the industry for the occupational medicine division at UC-San Francisco, said:

"Since the total quantity of toxic gases used in microelectronics companies is large and is increasing rapidly, it must be anticipated that accidents, acts of terrorism or natural calamities will result in exposures."

According to the Semiconductor Industry Association, there are more semiconductor plants in California than in any other state: 120 in Northern California and 65 in the southern part of the state. They all keep the gases on site to use at nearly every stage of the manufacturing process.

In addition to Air Products and Chemical Co., the other suppliers of compressed gas are Matheson Gas Products, Newark; Scientific Gas Products, Fremont; Liquid Air Corp., Union City; and Linde Division of Union Carbide, Santa Clara.

The model ordinance is sought by the Santa Clara County Fire Chief's Association, which through a \$100,000 appropriation from the Legislature last September hired two consultants, Practicon Associates of Palo Alto and Microsafe Inc., Santa Clara, to develop a model for cities and counties in California.

Sunnyvale Fire Marshall Ruben Grijalva, who's coordinating the legislation, said last week: "If we do have a major earthquake, the release of the gases could present more of a problem than the earthquake."

Toxic gases are underregulated,



Ruben Grijalva

Gases could 'present more of a problem than the earthquake'

with "not enough regulations to handle fly-by-night companies that separate from a major company," Grijalva said. "Before you know it, they're making chips.

"We're dealing with something that has the potential of being a major catastrophic event. No, I can't point to one in the Santa Clara Valley that has occurred. No, I don't want to point to one in the future that could have been prevented."

Under additions to the Uniform Fire Code in the early 1980s, businesses that use toxic gases have made many improvements in the ways they handle chemicals, fire protection, storage, monitoring and quantities of gas allowed on site.

The Semiconductors Industry Association, which has agreed to work with the ordinance task force, prefers placing controls on toxic gases within the Uniform Fire Code and the Uniform Building Code, where it has more influence, instead of in an ordinance, said spokesman Steven Pedersen.

The ordinance, now in a draft form under review for the third time at a public meeting in Sunny-

vale last week, would require an emergency shutdown system.

Gases would have to be more effectively treated — if possible — before they are released to the atmosphere.

Larry Monette, a chemist at the Santa Clara Fire Department, said the body of regulations followed up a pioneer leaking storage tank ordinance passed in Santa Clara County in 1983.

Monette praised new requirements for safeguards and for making citizens and employees aware of the problems associated with toxic gases.

But he said he regretted that the ordinance would not include regulation of the trucks that left such suppliers as Air Products to deliver the canisters to customers.

"If you have a truck going down the road, it's more likely that an accident will happen than when the canisters are chained in a building. We've got to deal with the transportation."

The firefighters task force is investigating how far the cities and towns can go in controlling the trucks in light of the U.S. Department of Transportation's overriding authority.

Corrections and clarifications

It is The Examiner's policy to correct errors. Readers are urged to call mistakes to our attention by writing to us at P.O. Box 7280, San Francisco 94120.