

TOXIC TECHNOLOGY

BY DAVID BACON

The railroad tank car sat for days on a siding at the Romic Corporation's waste transfer station in Redwood City, Calif., a working-class town halfway between San Francisco and the Silicon Valley. The used solvents it contained—effluent from the area's semiconductor and computer assembly plants—had long since been pumped away, leaving a knee-deep layer of toxic sludge.

The company decided that someone would have to climb into the tank and push the sludge down to the drain valve. The first worker tapped for the job refused, aware that the breathing apparatus required for working in the tank had been setting off alarms for dangerous concentrations of carbon monoxide.

Then the supervisor called Rodrigo Cruz.

At 6:15 a.m. on February 15, 1995, Cruz, a Filipino immigrant, reported to the Redwood City facility. He'd worked for Romic for two years, but always at the main toxic waste storage yard in East Palo Alto, 15 miles away.

He was reluctant to go into the tank. He saw the duct tape wrapped around the coupling that connected the hose to the breathing apparatus he would wear. He'd never been trained to clean rail cars or even to use the breathing apparatus.

The supervisors were aware of the faulty equipment as well as the alarms that had scared off the first worker. But no one warned Cruz. He put a paper suit on over his clothes, donned the breathing apparatus and went in.

After pushing the sludge toward the drain for a couple of hours, Cruz began having trouble breathing. He came out and took a break, complaining that he wasn't getting enough air. As soon as he went back in, his breathing problems increased. Suddenly, he could get no air at all. He remembers a terrible smell and taste in his mouth. He tried pulling on the escape cord, which should have signaled that he was in trouble. Nothing happened. Somehow, he didn't fall into the sludge, where



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The Toxic Avengers, a street theater group, re-enact the accident that disabled Rodrigo Cruz while he was shoveling Silicon Valley sludge.

he almost certainly would have died. Instead, he managed to stagger back down the dark tank until he was under the hatch where he'd entered and caught the attention of someone above who hauled him out.

After stripping off the breathing apparatus and his paper suit, now smeared with the tank's waste, Cruz could still hardly breathe. No one offered him assistance. Finally, he lost consciousness and collapsed. Someone called 911, and an emergency medical team took him away in an ambulance.

Cruz didn't die, but the effects of that morning will last the rest of his life. He has excruciating headaches. His reflexes are shot and he has no sense of balance, making it impossible to drive or ride a bike. He also has trouble remembering things.

Doctors concluded that he suffered from carbon monoxide poisoning and oxygen deprivation down in the rail car. In addition, the sludge contained xylene, benzene, methyl ethyl

ketone and trichloroethane, all dangerous but commonly used solvents in electronics that can cause cancer and liver damage over time. Cruz has no way of knowing what he may suffer from years from now.

In the popular imagination, the Silicon Valley is the hub of an information-processing industry powered by brainy computer programmers puzzling over intricate formulas. In reality, it is a huge manufacturing center with a work force of over a quarter of a million. In the heart of the industry, giant semiconductor plants manufacture chips and integrated circuits. These are the brains of the computers and electronic devices assembled in other Valley factories. Chips are made on production lines in a process called wafer fabrication, where they are bathed and baked in a large variety of extremely toxic solvents, acids and gases. Romic, which employs 200 people in the Valley, handles much of the toxic waste that these manufacturing plants produce.

Cruz worked at the bottom of the computer industry, one of thousands of Asian and Latino immigrants who do the jobs that bring the most chemical exposure and pay the least money. These workers are constantly exposed to low levels of toxic chemicals in the course of their work. Catastrophic accidents occasionally occur.

In the high tech work force, Asian immigrants make up 30 percent of skilled production workers, 47 percent of semiskilled workers and 41 percent of unskilled workers. Of the many Asian nationalities in the plants, Filipinos are by far the largest group. Latinos constitute 18 percent of skilled workers, 21 percent of semiskilled workers and 36 percent of unskilled workers. African-Americans constitute less than 7.5 percent of the electronics work force in any category.

For three months following that morning in the tank, Cruz traversed a gauntlet of Silicon Valley lawyers and social service agencies, looking for help. Romic was fighting Cruz's workers' compensation claim, and he was worried about how he would live, unable to work for perhaps the rest of his life. One afternoon, he walked through the door of the Santa Clara Center for Occupational Safety and Health (SCCOOSH) in San Jose.

SCCOOSH, founded in 1979 by electronics workers and health and safety activists, has a long history of battling the electronics industry over toxic contamination. "We want a workers' standard of justice," director JoLani Hironaka says. "Workers should be able to define adequate health and safety protection."

After years of relentless pressure from SCCOSH and its allies, the Semiconductor Industry Association (SIA) sponsored a study of 11 plants in 1992, seeking to prove exposure to toxic chemicals was not responsible for the high miscarriage rate among women in the industry. The SIA study, performed by University of California researchers, however, proved exactly the opposite. It found a direct connection between the use of ethylene glycols and miscarriages. SCCOSH then began a "Campaign to End the Miscarriage of Justice," which forced some of the largest companies to stop using these chemicals.

The SIA study results didn't surprise SCCOSH. Lawyers working with the center have repeatedly sued and filed workers'

Union Busting in the Valley

If Silicon Valley workers formed a union, they would have a better chance of forcing the industry to pay attention to their health and safety concerns. Yet the industry is doing everything in its power to prevent workers from organizing.

"Every worker in Silicon Valley knows that if you try to organize a union, a right which federal law is supposed to guarantee, you will probably lose your job," says Romie Manan, an organizer with the Santa Clara Center for Occupational Safety and Health (SCCOOSH), who has participated in almost every union campaign in the Valley. "The electronics industry in Silicon Valley is the most anti-union industry in America."

Robert Noyce, who helped invent the transistor and founded Intel Corp., declared that "remaining non-union is an essential for survival for most companies."

Union busting, consequently, has a long track record in the Valley. In the middle of wage cuts and a big wave of layoffs in 1982, National Semiconductor Corp., Intel, Advanced Micro Devices and Phillips, among others, fired almost all of the leading union activists of that period, who had formed the Electronics Organizing Committee of the United Electrical Workers.

Electronics plants have been laboratories for developing personnel-management techniques that maintain "a union-free environment," such as the team-concept method for grouping workers on the plant floor. When the National Labor Relations Board (NLRB) ruled in 1992 that these techniques were illegal in some instances, Silicon Valley employers became the architects of the Team Act, which sought to legalize a modern-day form of company unionism. President Clinton vetoed the bill in 1996, but most observers expect it to resurface soon.

When union-prevention schemes don't work, electronics employers resort to more heavy-handed methods. When the Painters Union won the support of workers at Atari in the early '80s, the company closed its plant and moved offshore. When workers at Versatone organized the Valley's first strike of production workers in 1992, that plant disappeared as well. Janitors at Hewlett Packard and Apple initially faced immigration raids and union busters before they finally won recognition.

The high level of repression facing Silicon Valley union activists means that the traditional organizing approach dependent on the NLRB's legal process doesn't work. Most Valley activists advocate a long-term approach of developing factory-floor leaders and using an organizing style that integrates the immigrant culture of the Valley's work force.

Filipinos, a key nationality among production workers, are generally in favor of joining unions, according to Manan. Trade unions are very popular in the Philippines, where a much higher percentage of workers are organized than in the United States. But like many immigrants, he says, Filipinos are reluctant to rock the boat because they are responsible for finding jobs for other family members, often in the same plant.

"We understand why Rodrigo Cruz went into the tank when he could see the danger," Manan says. "I know that when he looked at the tape around the air tube, he was thinking of his family, of all the people he had to feed. Workers aren't stupid, but we'll do things despite our misgivings because of fear of losing our jobs." —D.B.

compensation claims against most of the large manufacturers on behalf of workers disabled by exposure to toxins. The list includes industry giants such as Intel, National Semiconductor Corp., Hewlett Packard, IBM and Phillips. SCCOSH organized a Disabled Workers Group, forcing the industry to stop using dangerous solvents like 1,1,1-trichloroethylene. In two decades, the organization has become the main educational resource for Silicon Valley workers fighting to protect their health on the job.

At SCCOSH, Cruz found two Filipino immigrants like himself, Raquel Sancho and Romie Manan. Both are veteran organizers, with roots stretching back to the anti-Marcos movement in the Philippines. Over the previous year, they had been carefully organizing a network of Filipino electronics workers called Health WATCH (Workers Against Toxic Chemical Hazards).

"It was hard getting immigrant workers to picket the plants without having a long period of involvement with them around this issue," Sancho says. "No one would join us." So she set out to build a base of workers using her knowledge of Filipino culture. She went to karaoke bars and sang with workers. She went to malls to meet their families. She got herself invited to picnics and family gatherings.

"In the Philippines, we call this SI, or social investigation—getting to know the community," she explains. "I used to sell Saladmaster, sort of the Rolls Royce of pots and pans, going from friend to friend like people sell Amway or Tupperware. I used the same style to meet workers."

Sancho slowly developed a core of interested workers. In the first WATCH meetings, they told each other their life histories and discussed the chemicals used at work. Gradually, they began to talk about educating other workers and changing conditions in the plants.

When Cruz showed up at the SCCOSH office in 1995, WATCH members were ready, not just to listen to his story, but to take action on his behalf. They launched the "Campaign for Justice for Rodrigo Cruz," taking Cruz's case into the plants. Some workers, brave enough to risk angering management, wore buttons and ribbons to show solidarity.

WATCH also found allies in East Palo Alto, the African-American and Latino community surrounding Romie's main plant. It formed an alliance with the Ujima Security Council,

a group of residents concerned about living next to a toxic waste disposal site. The two groups organized joint demonstrations against Romie's plans to expand their facility.

Their activity kept Cruz's legal case alive and led to a large investigation of the company. At the East Palo Alto site, California Occupational Safety and Health Administration (CalOSHA) inspectors found numerous health and safety violations, and issued 22 citations against Romie in 1996 for failing to label hazardous chemicals, to properly store chemicals and to have an emergency response plan or a trained fire brigade. Because these conditions endangered the surrounding neighborhood, Ujima became a complaining party in the CalOSHA proceedings, an unusual step for a community organization.

Initially, the agency's legal unit attempted to settle the East Palo Alto citations for an insignificant \$6,300 fine. WATCH and its allies took their complaints to the media and mobilized community pressure on John Howard, head of the division of the state Department of Industrial Relations responsible for CalOSHA. Howard refused to approve the proposed settlements, and Romie was finally forced in September to accept a penalty double that originally imposed.

The citations issued by CalOSHA in Cruz's case, however, have yet to be reviewed by a hearing officer. CalOSHA filed 25 citations against Romie over the rail car incident, which are being considered separately from those involving the East Palo Alto site. One count alone would fine the company \$62,500 for failing to give Cruz an adequate breathing apparatus, and another \$37,500 for failing to have a way of rescuing him from the tank. Romie declined to answer questions about the Cruz incident.

The trial over these citations has been put off until February. In the meantime, as a result of the CalOSHA investigation, SCCOSH has discovered that Romie's tank-cleaning operation was not being monitored by either the federal or state environmental protection agencies. Despite the transfer of thousands of pounds of chemicals at the Redwood City rail car site, the state's Air Quality Management District didn't even know the facility existed. ■

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In Their Time

SCCOSH
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Santa Clara Center for Occupational Safety & Health 20 Years for Health and Justice in Silicon Valley

SCCOSH is a non-profit, community-based organization helping workers in Silicon Valley to empower themselves and to organize for humane working conditions. Many low-wage workers face exposure to toxic chemical hazards that can cause cancer or reproductive harm. A majority of high tech production workers are immigrant women, Asian and Latino. Since 1978, SCCOSH has helped workers to understand the impact of job hazards on health, to exercise their rights, and to safeguard their employment status in obtaining appropriate protections. SCCOSH continues to organize and advocate for low-wage, high-hazard workers at a time when their human and civil rights are under attack from all directions.

Highlights and Accomplishments of SCCOSH include:

- PHASE -- Project on Health and Safety in Electronics (1978-81)
- Multilingual Hotline Assistance (1978 to present)
- Campaign to Ban TCE (1979-82)
- Silicon Valley Toxics Coalition (1982, incorporated 1983)
- Injured Workers United (1982-88)
- Valley Medical Center—Silicon Valley's 1st publicly funded worker health clinic
- Technical Support Center for California Legal Services Programs (1992-present)
- Campaign to End the Miscarriage of Justice (1993-96)
- Worker Stories Process—participatory training model (1995-present)
- Health WATCH--Workers Acting Together for Change (1995-present)
- Toxic Avengers Theater (1995-present)
- Justice for Rodrigo Cruz Campaign (1996-present)
- East Palo Alto Coalition Against Toxics (1996-present)
- E-WORKS—Electronics Workers Occupational Recordkeeping System (1997)

Health WATCH

Health WATCH (Workers Acting Together for Change) is a group of Silicon Valley workers organizing for health and safety through leadership development and collective action. Most members are immigrant workers in low-wage jobs. Health WATCH adopted the struggle of Rodrigo Cruz and launched the accountability efforts that has grown into the Justice for Rodrigo Cruz Campaign. For information on membership or the Women's Organizing Committee, please contact Health WATCH chair, Frank Flores, at the SCCOSH office.

TOXIC AVENGERS THEATER

TOXICS AVENGERS THEATER validates and dramatizes how local workers are empowering themselves to protect their health and safety. TOXICS AVENGERS THEATER builds upon the artistic and cultural traditions of our local communities. We have produced eight performance pieces since 1995, incorporating Polynesian story-telling traditions in Tongan, the Filipino *despedida*, African dance, jazz, and Asian martial arts movement. TOXICS AVENGERS THEATER evolved from the Worker Story Process, SCCOSH's participatory model in which workers use their own workplaces, exposures, and experiences to define collective solutions for health and safety.