How Japan stifles U.S. semiconductor industry

Chemical spills tarnish industry's image

By Susan Veseliner
Staff Writer

When the apricot, prune and pear orchards of the
pristine Santa Clara Valley of the 1940s began to be
replaced by low-slung industrial buildings, local
officials and city boosters were glad to see the
environmentally clean electronics industry.

"I remember being so happy that we were having
industrial boom in our community," San Jose
Mayor Janet Gray Mayor said Saturday. "I remember
thinking about the smokestacks at other industries
around the country."

That link in the non-polluting nature of the
electronics industry has been shaken in the past month
by the revelation that hazardous or toxic
chemicals have contaminated Santa Clara County
groundwater in two cases, water intended for
residential use.

"I didn't expect this problem to erupt in my own
community," Mayor said.

"Let me put it this way," said Tom Hinkleman,
executive director of the Semiconductor Industry
Association. "The companies, the citizenry and the
government believed that electronics was a non-pollut-
ing industry."

The Japanese government systematically has nurtured
the growth of its own semiconductor
industry and manipulated its market
to discourage U.S. chip makers
from doing business in Japan since
the mid-1970s.

Those findings will be released
Monday by the Joint Economic
Committee of Congress as part of
an exhaustive two-year study of
the Japanese and American semi-
iconductor industry.

The 183-page report, titled "Inter-
national Competition in Ad-
vanced Industrial Sector, Trade
and Development in the Semicon-
ductor Industry," was compiled by
researchers at the University of
California at Berkeley. An advance
page was obtained by the Mercury
News.

The report details what execu-
tives of Silicon Valley chip makers
have been charging for years that
Japanese electronics firms, with
the aid of their government, could
raise massive sums, sacrifice
short-term profitability for the
sake of establishing footholds in
critical markets and carve out
non-competing niches of business
for themselves.

The study evoked predictable re-
action from American observers
of the $14 billion worldwide semiconduct-
ductor industry. Semiconductors
are key electronic chips used in micro-
computers, digital watches and
many other electronic products.

The study brings into sharp focus
the concept of Japan Inc. and
Washington's growing concern
over the semiconductor indus-
ty Association, a trade group
based in Cupertino. And it clearly
shows how the Japanese govern-
ment excluded participation of
American firms in the Japanese
market. That gave Japanese compa-
ies a base for launching an ag-
gressive semiconductor export

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Train wreck blocks SP main line

White House wants to stall budget talks

The New York Times

WASHINGTON - The White House, conceding
that President Reagan lacks the votes in Congress
for passage of his $195 billion budget, has decided to try

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Chemical leaks prompt questions about firms' cleanliness

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chemical industry. That's the way it can be, and should be. You talk about guarantees, I just don't have an answer for that at this point.

The national association -- based in Cupertino -- represents the country's major semiconductor companies.

The cause of concern is a series of recent leaks contaminating ground water. In South San Jose, a public drinking-water well was contaminated by an industrial cleaning solvent called 1,1,1-trichloroethane. In Mountain View, one family's private well was contaminated with trichloroethylene (TCE), a degreasing and cleaning solvent suspected of causing cancer.

Now government officials, water company officers and industry executives are trying to learn the extent of ground-water contamination. So far, no one is sure.

"We don't know, I don't really know how many leaks are out there," Hinkelman said. "In the next six weeks, we'll know more."

Peter Giles, president of the Santa Clara County Manufacturing Group, whose members are involved in the valley, said the recent chemical leaks are "a problem that's been identified, and a solution has to be developed. We just don't know exactly the problem and how far-reaching it is."

Hinkelman, Giles and Hayes intend to meet Monday to discuss ways to determine the extent of the problem.

Santa Clara County's largest water company considers the threat serious enough to begin testing water to contain the purity of its wells near large electronics plants.

Horner Hyde, vice president of San Jose Water Works, said the members of the Regional Water Quality Control Board for the past eight years, said his company will begin taking samples within the next six months. San Jose Water Works has 138 wells serving 190,000 households in San Jose, Los Gatos, Saratoga, Cupertino, Campbell and Monte Sereno.

"It's a threat to the health of the community," Hyde said. "We don't know if the industry is going to take a look at these plants and do some testing."

The ground-water contamination problem has implications for all of Silicon Valley.

Hinkelman said the Semiconductor Industry Association is organizing a nationwide task force to study the problem of leaks from electronic-component containment. He said he hopes the task force will be able to recommend improved standards that could be codified in the Uniform Building Code, used in every state.

Hayes said the past month's discoveries have taken her by surprise. "I honestly thought there were higher levels of government that were focused in on addressing this problem, such as the regional water quality control board, the health departments in the county and state."

"I was assuming that these agencies are monitoring the situation. I think it's a shame that if I, as mayor, have to read it in the newspaper," Hayes said.

Meanwhile, officials from the state Regional Water Quality Control Board and the state Department of Health Services are investigating seven chemical leaks at five major electronics companies in the county. In each case, the ground-water supply extending 15 to 20 feet into the ground has been affected.

Most county residents get their drinking water from the deeper aquifers or porous underground rock layers containing water, located about 50 feet beneath the surface.

Here is a list of the recent chemical leaks contaminating ground water.

1. Fairchild Camera and Instrument Corp. in South San Jose. The cleaning solvent 1,1,1-trichloroethane seeped from an underground solvent storage tank and contaminated the ground water in one of the 12 wells owned by the Great Oaks Water Co. The levels of the chemical contained in the well were as much as 29 times greater than the state's acceptable standard. The water company serves about 15,000 households.

2. Fairchild Camera and Instrument Corp. in Mountain View. The cleaning solvent trichloroethylene, used to clean parts, is believed to have seeped into the ground water from an underground neutralization pit. The levels of TCE found in ground water are 10,000 times greater than the state's acceptable standard. No public drinking water wells were found to be contaminated.

3. The former Micromatic plant in Mountain View. TCE leaked into the ground water supply from an underground solvent storage tank that had not been used by the company since April 1981. The levels of TCE found in the ground water were up to 10,000 times greater than the acceptable standard.

4. The private drinking well of Joseph and Linda Silva, 24121 Montebello St., which was found to contain levels of TCE 14 times higher than the standard. Their well is near both the Fairchild and the Micromatic plants. But so far, state water officials are not certain of the source of the TCE.

5. Signetics Corp. in Sunnyvale. Chemicals including TCE, perchloroethylene, xylene, pheomols and other toxic chemicals leaked into the ground from a split in a pipe that leads to an underground storage tank. City officials closed three of Sunnyvale's nine public wells Thursday as a precaution until water-analysis test results are received this week.

6. Hewlett-Packard Co. in Palo Alto. A second underground storage-tank leak involving the above solvents was found near the ground water in 1981. No public drinking water was affected.

7. IBM Corp. in San Jose. Hazardous chemicals including 1,1,1-trichloroethane, xylene and toluene seeped into the ground water from underground storage areas in September 1981. The leak did not affect public drinking water, according to tests of water from the wells on IBM property.