

E**SUNDAY**

OCT. 18, 1992

San Jose Mercury News

BUSINESS

MARKETS ♦ HIGH TECH ♦ ECONOMY

**JAMES J. MITCHELL***Business Editor*

Progress in toxic safety no excuse for IBM coverup

THE ELECTRONICS industry, which often has failed to disclose fully the dangers of toxic chemicals used in its manufacturing processes, has done it again.

Last month, a preliminary report of a study commissioned by IBM stated that two chemicals widely used in making semiconductors might significantly increase the risk of miscarriage.

To its credit, IBM warned its employees and passed the information to government regulators and the Semiconductor Industry Association, which notified most chip makers.

But IBM decided not to tell the general public, and we only learned about it because of sleuthing by the Hartford Courant and the New York Times.

Obviously, old, secretive habits die hard at Big Blue.

As often happens in such cases, the attempted coverup may have made the information appear more damning than is the case.

After all, the sample size was small — only 30 people — and other factors may have been involved. The final report could be quite different when it is completed in the next few months.

BY THEN, we should also have the results of a \$3.5 million study of the health of thousands of semiconductor workers by researchers at the University of California, Davis.

Even that report could be controversial, however, since it was funded by the Semiconductor Industry Association. The SIA says it has not tried to influence the study's contents.

While these studies could lead to reductions in the health hazards of the semiconductor workplace, they'll be hard pressed to match the advances already being made by the combination of increased awareness and the rapid advance of chip-making technology. Chip makers' self-interest has already resulted in dramatic advances.

Not too long ago, workers were often exposed to toxic substances — for example, while mixing chemicals or working with wafers. Sometimes employees had chemicals "all over them," one executive told me.

Some acid rinse cycles were like making french fries at McDonald's. While the arm of a robot, not an employee, put the basket of wafers into the acid, the employee was still exposed to fumes, and he or she might spill some chemicals while moving the wafers from one process to another.

TODAY, companies have many reasons besides concern about their employees' health to be more careful.

Chemicals are expensive to buy and to dispose of, and companies have developed technologies to minimize their use. Also, as chip geometries have gotten increasingly small, the process of making the chips has become more refined. Many wafers are treated individually, and using too much chemical can wreck the process.

These wafers also can be damaged by minuscule pieces of contamination from workers, such as invisible bits of skin or moisture. To keep this from happening, manufacturers of chip-making equipment have developed machines that treat wafers in a vacuum, away from workers.

Although not all chip making equipment in use is this modern, rapid obsolescence rates ensure that it soon will be.

Chip makers have made substantial progress in improving their employees' working environments. But they still shouldn't cover up results of studies that indicate problems remain — even if the results are preliminary.

Write James J. Mitchell at 750 Ridder Park Drive, San Jose, Calif. 95190; call (408) 920-5544; or fax (408) 920-5917.