

Chip-making health risks found

■ **Top story:** A UC-Davis study of reproductive hazards will be released today.

BY REBECCA SMITH
Mercury News Staff Writer

Women who make computer chips face an elevated risk of miscarriage, and such work presents other health hazards to both men and women, according to a landmark study scheduled for release today.

The \$3.5 million study — the

largest ever to focus on reproductive hazards to both men and women working in the semiconductor industry — was conducted by researchers at the University of California, Davis. It examines the risks posed by human contact with the chemicals, metals, gases and equipment employed in chip-making.

The three-year study, which tracked about 18,000 workers, was financed by 16 members of the San Jose-based Semiconductor Industry Association.

"We're hoping the results of this study will cause the industry to finally realize the health of its workforce is sufficient grounds for phasing out the bad actors among their toxic chemicals, solvents and gases," said Ted Smith, head of the Silicon Valley Toxics Coalition, a group that has fol-

lowed the study closely.

Executives familiar with the study Wednesday declined to divulge its exact findings. But they confirmed that miscarriage rates were elevated among manufacturing workers, a problem highlighted by previous, more limited studies. They also confirmed that the study uncovered additional health problems affecting both men and women that the industry will address through an "action plan" that will be detailed today.

SIA executives received a special briefing on the study Wednesday — after signing forms pledging confidentiality. The executives also were supplied with explanatory materials on the 500-page study that they will distribute to semiconductor workers, most likely today. One executive indicated the conclusions might frighten workers.

"But we'll give them an oppor-

See *CHIPS*, Page 7F

Landmark UC study to reveal health hazards of chip-making

■ **CHIPS**
from Page 1F

tunity to exercise their options after hearing the results," he said. "We'll do what we can to take any actions that are warranted to protect workers. We take this very seriously."

His comment suggested that a limited practice of allowing wary employees to transfer out of manufacturing may become more widespread in the industry.

In September, International Business Machines Corp. released a study that showed reproductive health risks to some of its chip-manufacturing employees. As many as one-third of the women working with glycol ethers had miscarriages.

IBM said the company would honor employee requests for transfers to other areas.

The Semiconductor

Industry Association study

was prompted by an

alarming 1986 study at

Digital Equipment Corp.

Sources indicated Wednesday that the SIA is developing stricter procedures for the handling of toxic chemicals and gases and governing exposure to other processes. It also may advise that some chemicals be phased out.

The SIA study was prompted by an alarming 1986 study of workers at Digital Equipment Corp. In the 1986 study, miscarriages affected 39 percent of the women working in DEC's so-called diffusion group, which

brought them into contact with gases containing arsenic.

But the small sample size — only 34 pregnancies were tracked — raised questions about the universality of the DEC findings.

The SIA decided to fund its own study in 1987 and enlisted the help of prominent academics, including epidemiologist Dr. Patricia Buffler, dean of the School of Public Health at the University of California, Berkeley.

An SIA advisory panel later picked the UC-Davis team, headed by Dr. Marc Shenker.

In preparing the study, university researchers tracked employees of some of the biggest names in the semiconductor industry: Intel Corp., National Semiconductor Corp., Advanced Micro Devices Inc., American Telephone & Telegraph Co., DEC, Northern Telecom Electronics and Signetics.