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Sematech's New Mission is Defined

By John Markoff

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Congress took the unusual step over the weekend of mandating that 10 percent of the Sematech computer chip consortium's $100 million 1993 budget be used for environmental research.

The new requirement, dictated by Congress on Saturday after months of pressure by a national environmental group and grass-roots organizations, is an indication of the changing role of the Government-sponsored manufacturing consortium, which was founded five years ago in an attempt to stave off Japanese competition in making semiconductors.

Defining a New Mission

From the start, Sematech, based in Austin, Tex., has been working with American companies to develop advanced chip-making techniques and equipment. But lately the group has been in search of a broader role, and its new environmental mandate may find Sematech dealing more with the industry's problems of pollution and worker health and safety.

Half of Sematech's annual budget comes from its 12 corporate members, with the rest contributed by the Federal Government. In recent months Sematech's Federal financing has been in doubt because of waning support from the Department of Defense and the Bush Administration.

A number of industry critics have also charged recently that Sematech's mission has become obsolete in the face of several recent alliances between United States and Japanese semiconductor makers, including recent agreements between International Business Machines and Toshiba and between Advanced Micro Devices and Fujitsu.

In language buried in a military budget-authorization bill passed by a House-Senate conference committee Saturday afternoon, Sematech is instructed to spend $10 million in 1993 toward the development of a "pollution-preventing, environmentally safe microchip manufacturing process." The conference report instructs Sematech to consult with environmental and labor organizations in developing the process.

Semiconductor manufacturing has enjoyed a reputation as a light industry that is clean. But environmental critics have long charged that if viewed in terms of the chemicals the industry uses, semiconductor makers have been among the nation's worst polluters.

In testimony before the House Science, Space and Technology Committee last month, Ted Smith, chairman of the Campaign for Responsible Technology, an organization of environmental activists, said that Silicon Valley has more Superfund cleanup sites than any other region of the country because of the ground water contamination caused by electronics companies.

"It is increasingly clear that there is a footprint of this industry, and that footprint is worker health and safety and ground water contamination," he said in a telephone interview. Mr. Smith said that his organization was planning to try to persuade the chip manufacturers participating in the Sematech consortium to match the $10 million the Government has earmarked for environmental research.

A spokeswoman for an Austin-based environmental organization called People Organized in Defense of Earth and Resources said that when the group tried to obtain a toxics-release inventory from Sematech, it found that the organization is exempted from strict environmental regulations because it is supported by Defense Department money.

"We feel the community has been short-changed," said Susana Alamanza, co-chairwoman of the organization.

Sematech's mission of improving the nation's chip-making technology has been controversial since its inception. The organization has been attacked both by politicians who claim that it is wrong for the Government to pick winners and losers and by industry executives who say that financing Sematech constitutes favoritism towards large American chip makers.

In recent months, however, Sematech has been given credit for helping to reverse the slide in market share of the American semiconductor equipment manufacturers. The world market for semiconductor manufacturing equipment is $20 billion, and American makers of such equipment registered an increase in 1991 worldwide market share to nearly 41 percent from 38 percent in 1990.