

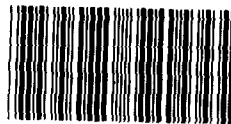
GAO

Report to Congressional Requesters

April 1991

FEDERAL
RESEARCH

Assessment of the
Financial Audit for
SEMATECH's
Activities in 1989



143761



United States
General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

B-236668.4

April 30, 1991

The Honorable Sam Nunn
Chairman, Committee on Armed Services
United States Senate

The Honorable Les Aspin
Chairman, Committee on Armed Services
House of Representatives

The National Defense Authorization Act for Fiscal Years 1988 and 1989 (P.L. 100-180) requires that we review the annual audits of the financial statements of SEMATECH, Inc., a consortium of 14 U.S. semiconductor manufacturers and the Department of Defense (DOD), and provide comments to you on their accuracy and completeness. This, our second report in response to the legislative requirement, reviews the audit conducted by Price Waterhouse, an independent public accountant, of SEMATECH's financial statements for the year ending December 31, 1989.¹

Price Waterhouse's opinion, dated February 16, 1990, stated that SEMATECH's 1989 financial statements are fairly presented in all material respects in conformance with generally accepted accounting principles. Also, in conformance with generally accepted government auditing standards, Price Waterhouse issued reports on SEMATECH's internal control structure and compliance with laws and regulations. These reports did not disclose any material internal control weaknesses or noncompliance with laws and regulations. Price Waterhouse, however, issued a management letter making several recommendations that, although not material to the financial statements, could improve SEMATECH's management efficiency and enhance its internal control structure.

Results in Brief

We found nothing during our review to indicate that Price Waterhouse's opinion on SEMATECH's 1989 financial statements, or its reports on internal control structure and on compliance with laws and regulations, cannot be relied upon. SEMATECH's 1989 financial statements incorporate the suggestions in our report on its 1988 financial statements about certain additional disclosures and the treatment of the University of Texas' contribution of property, facilities, and furnishings to SEMATECH. In addition, SEMATECH in its 1990 financial statements has corrected immaterial

¹Our report, Federal Research: Assessment of the Financial Audit for SEMATECH's Activities in 1988 (GAO/RCED-90-35, Feb. 16, 1990), was our first review of the audit of SEMATECH's financial statements.

overstatements of depreciation expenses and, in response to our review, clarified its depreciation policies and practices.

Because SEMATECH receives a significant amount of federal and state financial support, we believe that its financial statements should disclose that it is making postemployment payments to its former chief operating officer. SEMATECH declined to disclose these payments because of their immateriality to its financial statements.

In addition, at least two of SEMATECH's member companies have included a portion of their SEMATECH contributions for reimbursement as overhead costs on government contracts they hold. Reimbursing such costs through overhead is in accordance with government cost accounting principles and does not directly affect SEMATECH's financial statements. However, it serves indirectly to increase the federal government's overall support for SEMATECH's research and development (R&D) activities.

Background

SEMATECH was incorporated in Delaware in August 1987 as a nonprofit R&D corporation with the objective of advancing semiconductor manufacturing technology. The following companies are members of SEMATECH:

Advanced Micro Devices, Inc.
American Telephone and Telegraph Company
Digital Equipment Corporation
Harris Corporation
Hewlett-Packard Company
Intel Corporation
International Business Machines Corporation
LSI Logic Corporation
Micron Technology, Inc.
Motorola, Inc.
National Semiconductor Corporation
NCR Corporation
Rockwell International
Texas Instruments, Inc.

The National Defense Authorization Act for Fiscal Years 1988 and 1989, enacted in December 1987, authorized the Secretary of Defense to make

grants to SEMATECH to defray R&D expenses. The act required the Secretary of Defense to enter into a memorandum of understanding that provided, in part, that (1) the total funds made available to SEMATECH by federal, state, and local government agencies for any fiscal year for the support of R&D activities not exceed 50 percent of the total cost of such activities and (2) an independent, commercial auditor submit annual reports to the Secretary of Defense, SEMATECH, and the Comptroller General on the extent to which SEMATECH's use of funds made available by the United States is consistent with the purposes of the act and with SEMATECH's charter and annual operating plan.

SEMATECH selected Austin, Texas, as its permanent location in January 1988. To attract SEMATECH, the state of Texas—through the University of Texas—spent \$48.2 million to purchase and improve land and buildings, which have been leased to SEMATECH under a 20-year lease. In April 1988 the Secretary of Defense delegated responsibility for overseeing SEMATECH to the Defense Advanced Research Projects Agency (DARPA). In May 1988 DARPA entered into a memorandum of understanding with SEMATECH and signed a grant agreement. The Congress has appropriated about \$100 million for SEMATECH's use in each of the past 4 fiscal years to match the contributions of SEMATECH's member companies.

SEMATECH's financial statements for 1989 reported in a footnote on matching funds that the cumulative amount of member companies' contributions and interest earned on their unexpended contributions exceeded the funds advanced by government agencies by \$4.2 million.² SEMATECH's Vice President for Finance said that SEMATECH's members had decided to maintain such a cushion to ensure an adequate match to the government share.

Prior Issues

SEMATECH has incorporated the suggestions included in our report on the audit of its 1988 financial statements. Specifically, SEMATECH made additional disclosures in footnotes to its financial statements for 1989 about the amount of (1) federal contributions shown as revenue that were restricted because eligible costs had not yet been incurred; (2) unallowable costs that, under the grant agreement with DOD, were not used to calculate matching government funds; and (3) interest on federal fund advances collected and reimbursed to the U.S. Treasury.

²Member company funds used for matching government contributions properly excluded costs considered unallowable by Office of Management and Budget Circular A-122, "Cost Principles for Non-profit Organizations."

In addition, in response to our report's recommendations about the treatment of the University of Texas' contribution of property, facilities, and furnishings to SEMATECH, DARPA and SEMATECH agreed in September 1990 that SEMATECH's financial statements will (1) value the University's contribution at \$40 million for both financial reporting and member company matching purposes and (2) amortize the contribution over a 20-year period using a straight-line method, which is one of several write-off methods permitted under generally accepted accounting principles. As a result of this agreement, SEMATECH will annually value the University's contribution at \$2 million for both financial reporting and member company matching purposes. SEMATECH plans to adjust the matching fund footnote in its 1990 financial statements to value the University's contribution as \$2 million in 1989, or \$300,000 more than originally stated. Because member companies' contributions in 1989 and 1990 exceeded the matching requirement, the agreement does not require member companies to increase their contributions to SEMATECH. DARPA's agreement with SEMATECH appears reasonable.

Current Issues

SEMATECH revised footnotes to the 1990 financial statements to correct immaterial overstatements in depreciation accounts and to clarify its depreciation policies and practices. SEMATECH declined, however, to disclose that postemployment payments are being made to its former chief operating officer, citing their immateriality to the financial statements.

In addition, our review of the financial audit for SEMATECH's activities in 1989 revealed that at least two member companies have included a portion of their share of SEMATECH's operating costs for reimbursement as overhead costs on government contracts they hold. This reimbursement, which is allowable under the Federal Acquisition Regulation, indirectly increases the government's overall support to SEMATECH.

Need to Correct Overstatement of Depreciation Expenses

After issuing its financial statements for 1989, SEMATECH discovered that depreciation expenses of \$33.1 million for 1989 were overstated by an immaterial \$242,000. SEMATECH had mistakenly computed depreciation using the double declining balance method instead of the straight-line method for \$44 million of \$175 million spent on manufacturing and research facilities. SEMATECH also understated depreciation expenses for specialized manufacturing equipment in 1989 because it applied different depreciation methods for the equipment and the equipment's installation costs. Generally accepted accounting principles require that

installation costs of long-term assets be depreciated in the same manner as the installed capitalized equipment.

Price Waterhouse's tests of depreciation expenses for a sample of SEMATECH's fixed assets did not discover these errors. Generally accepted auditing standards require only testing of reasonableness and other limited testing of depreciation expenses if the auditor's assessments indicate a low risk of material errors or misstatement.

Price Waterhouse and SEMATECH considered the net result of these errors to be immaterial to the 1989 financial statements taken as a whole, and the 1990 financial statements corrected these errors.

Need to Clarify Depreciation Policies and Practices

The 1989 financial statements did not fully explain SEMATECH's depreciation methods for all major classes of fixed assets. Footnotes on depreciation stated that SEMATECH generally depreciated costs associated with manufacturing and research facilities over a 5-year period using the double declining balance method discussed above. However, the footnotes did not mention that \$44 million in long-term costs for manufacturing and research facilities were depreciated using the double declining balance method over a 20-year life. Generally accepted accounting principles, which require disclosure of depreciation methods to enable users to understand and compare financial statements, state that such disclosure should generally identify depreciation methods used by major classes of assets. To the extent that useful life information is disclosed, we believe that it should also be presented for all major classes of depreciable assets.

Depreciation footnotes to 1990 financial statements explain SEMATECH's depreciation methods for its long-term manufacturing and research facilities.

Postemployment Payments Paid to Former Chief Operating Officer

SEMATECH's financial statements for 1989 did not disclose that a 3-year employment agreement with its former chief operating officer guaranteed continued salary payments for the term of the agreement if employment was terminated during the period.³ During March 1989, the chief operating officer's employment ended, and SEMATECH honored its guarantee by agreeing to continue paying the executive's salary through

³Many businesses have entered into similar types of postemployment agreements to attract and retain top executives.

August 1991. The executive's 1989 salary payments were paid out of funds that DOD and member companies had jointly contributed.

Generally accepted accounting principles require disclosure of the nature and amount of material guarantees made as contingent liabilities even if the contingency is only remotely possible. Price Waterhouse's payroll tests showed that SEMATECH had paid two persons as chief operating officers during 1989. However, SEMATECH and Price Waterhouse did not consider the amounts material to the financial statements taken as a whole and, therefore, did not believe that additional disclosure was necessary.

Because SEMATECH receives significant federal and state financial support, we believe that its financial statements should disclose items that otherwise would not be considered material or significant. Specifically, the chief operating officer's postemployment agreement constitutes a guarantee, which, in our opinion, should have been disclosed in the footnotes in SEMATECH's 1989 financial statements.

Members' Recovery of Contributions Through Government Contracts

Our review of the financial audit for SEMATECH's activities in 1989 found that at least two of SEMATECH's member companies had included a portion of their contributions to SEMATECH for reimbursement as overhead costs associated with government contracts they hold. According to a recent survey, 8 of SEMATECH's 14 member companies are among the government's top 150 contractors in fiscal year 1989; the value of their contracts ranges from \$94 million to \$4.5 billion.⁴ In accordance with part 31 of the Federal Acquisition Regulation, "Contract Cost Principles and Procedures," these companies can receive reimbursement for normal overhead costs, including such costs as SEMATECH contributions, on their negotiated government contracts. During reviews of contractor overhead charges, DOD's Defense Contract Audit Agency (DCAA) found that two SEMATECH members had included part of their SEMATECH contributions for reimbursement as general and administrative or overhead costs on their government contracts. DCAA did not take exception to these charges because they were considered a necessary cost of doing business and, therefore, allowable under the Federal Acquisition Regulation.

SEMATECH and Price Waterhouse noted that the reimbursement of contractors is a broad DOD policy issue that does not involve SEMATECH's

⁴Government Executive (Aug. 1990). The other six member companies were not included in the survey.

operations. DOD stated that no legal basis exists to conclude that such recovery violates the 50-percent limitation on government funding or any other agreement between SEMATECH and DOD. However, we note that (1) such reimbursement serves indirectly to increase the government's overall support for SEMATECH's R&D activities and (2) government agencies, by providing about 50 percent of SEMATECH's R&D budget each year, already have enabled member companies to leverage their own R&D spending and given them a significant incentive to participate in SEMATECH. It is unclear whether the Congress, in deciding to provide federal funding for SEMATECH, anticipated that federal agencies would reimburse some member companies through government contracts for a portion of their SEMATECH contributions. The upcoming debate over the reauthorization of federal funding for SEMATECH provides an opportune time to address this issue.

Conclusion

Nothing during our review indicated that Price Waterhouse's opinion on SEMATECH's financial statements for 1989, or its reports on internal control structure and on compliance with laws and regulations, cannot be relied upon. We believe, however, that the interests of American taxpayers, who support approximately 50 percent of SEMATECH's operations, would better be served by SEMATECH's disclosing that it is continuing to pay the salary of its former chief operating officer in accordance with the terms of a postemployment guarantee. Further, reimbursement of member companies' contributions to SEMATECH as overhead costs on government contracts serves indirectly to increase the federal government's overall support for SEMATECH's R&D activities.

Matters for Consideration by the Congress

If federal participation in SEMATECH is reauthorized, the Congress may wish to take into account, in determining the appropriate level of federal funding, the indirect cost reimbursements that some SEMATECH members receive for their SEMATECH contributions. The Congress also may wish to consider this issue for any other jointly funded consortium that includes federal contractors or grantees.

Agency Comments and Our Evaluation

A draft of this report was sent to SEMATECH and the Department of Defense for comment. SEMATECH in its written comments said that it appreciated the forthright manner in which we examined and presented the issues and that our suggestions have been helpful and have contributed to improving the presentation of its financial statements. (See app. I.) SEMATECH also suggested a few changes to improve the presentation

and technical accuracy of the draft report. We incorporated these changes as appropriate.

In its official oral comments, DOD agreed with the presentation of the report except for issues involving (1) SEMATECH's postemployment agreement with its former chief operating officer and (2) the partial recovery of SEMATECH costs by member companies. Specifically, DOD disagreed with our conclusion that SEMATECH's 1989 financial statements should have disclosed its postemployment agreement, noting that generally accepted accounting principles require disclosure of material guarantees only and that SEMATECH and Price Waterhouse did not consider this guarantee material. Regarding member companies' partial recovery of SEMATECH costs, DOD stated that (1) no legal basis exists to conclude that such recovery violates the 50-percent limitation on government funding or any other agreement between SEMATECH and DOD, (2) the amount of member company dues that may potentially be reimbursed through government contracts is a very small percentage of the total industry contribution to SEMATECH, and (3) member companies also have made substantial "indirect" contributions to SEMATECH through donations of technology and personnel other than employees assigned to SEMATECH. DOD partially agreed with our Matters for Consideration by the Congress, stating that the Congress should be aware of the magnitude of reimbursements of member companies' contributions to SEMATECH in determining the appropriate level of federal support for particular programs. However, DOD added that it believed that the Congress, in establishing a straightforward matching equation, was aware of the relative magnitude of the cost reimbursements and of companies' difficulties in fully accounting for them.

We continue to believe that the 1989 financial statements should have disclosed that SEMATECH is making postemployment payments to its former chief operating officer because federal funds are being used to partially pay this employment guarantee. Regarding the legality of member companies' recovery of SEMATECH costs through government contracts, we have revised our report to reflect DOD's views. While the amount of such federal reimbursement may, as DOD states, be a small percentage of the total industry contribution to SEMATECH, we are unable to determine the amount of reimbursement at this time because (1) neither SEMATECH nor Price Waterhouse has received a complete list of government contracts through which member companies have sought reimbursement and (2) reimbursement often occurs several years after the costs were incurred. Further, because member companies are the

primary beneficiaries of SEMATECH's R&D program, we see their contributions of technology and personnel as serving their interests. As stated in the body of the report, we believe it is unclear whether the Congress anticipated that member companies would be partially reimbursed for their SEMATECH contributions; the upcoming debate over the reauthorization of federal funding for SEMATECH provides an opportune time for the Congress to further consider this issue.

Scope and Methodology

Section 274 of the National Defense Authorization Act for Fiscal Years 1988 and 1989 requires that we review the annual audits of SEMATECH's financial statements and provide comments on their accuracy and completeness and any additional comments that we consider appropriate to the Chairman, Senate Committee on Armed Services, and the Chairman, House Committee on Armed Services. This report, our second in response to the legislative requirement, reviews the Price Waterhouse audit of SEMATECH's financial statements for 1989.

To determine the accuracy and completeness of the Price Waterhouse audit, we

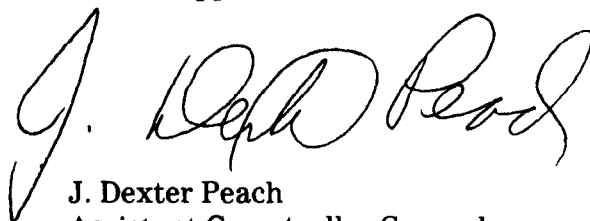
- reviewed the auditors' approach and planning of the audit;
- evaluated the qualifications and independence of the audit staff;
- reviewed the financial statements and auditors' reports to evaluate compliance with generally accepted accounting principles and generally accepted government auditing standards; and
- reviewed the auditors' working papers to determine (1) the nature, timing, and extent of audit work performed; (2) the extent of audit quality control methods the auditors used; (3) whether a review was conducted of SEMATECH's internal control structure; (4) whether the auditors tested transactions for compliance with applicable laws and regulations; and (5) whether evidence in the working papers supported the auditors' opinion on the financial statements and internal control structure and compliance reports.

This report does not include a copy of the 1989 financial statements because they contain proprietary information.

We conducted our review of the Price Waterhouse audit of SEMATECH's 1989 financial statements from May 1990 to September 1990 in accordance with generally accepted government auditing standards.

As agreed with your offices, we are sending copies of this report to the Secretary of Defense, the Chairman of the Board of Directors of SEMATECH, Price Waterhouse, and other interested parties. Copies will be made available to others upon request.

This report was prepared under the direction of John M. Ols, Jr., Director, Housing and Community Development Issues, who may be contacted at (202) 275-5525. Other major contributors to this report are listed in appendix II.

A handwritten signature in black ink, appearing to read "J. Dexter Peach". The signature is fluid and cursive, with the first letter "J" being particularly large and stylized.

J. Dexter Peach
Assistant Comptroller General

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Abbreviations

DARPA	Defense Advanced Research Projects Agency
DCAA	Defense Contract Audit Agency
DOD	Department of Defense
GAO	General Accounting Office
R&D	research and development
SEMATECH	SEmiconductor MANufacturing TECHnology

B-236668.4

Comments From SEMATECH



2706 MONTOPOLIS DRIVE
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March 29, 1991

Mr. John Ols
Director of Housing and Community Development Issues
United States General Accounting Office
441 G Street NW (Room 1842)
Washington, DC 20548

Dear Mr. Ols:

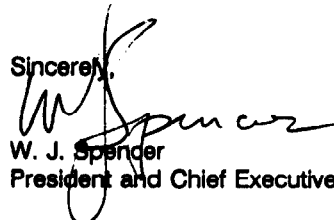
We appreciate the opportunity to comment on the draft GAO report, dated February 12, 1991, which reviews the accuracy and completeness of the audit of SEMATECH's 1989 financial statements performed by Price Waterhouse.

I am pleased to receive such a solid report on the way SEMATECH conducts its financial affairs, and to learn there are no issues requiring change or adjustment by SEMATECH. I am further pleased that the report affirms both the excellent work of Price Waterhouse in conducting this audit to meet all necessary commercial and governmental standards and that their work can be relied upon.

We at SEMATECH are committed to the highest standards of financial reporting and compliance with generally accepted accounting principles as well as applicable laws and regulations, commensurate with our responsibility as a public-private partnership in the midst of pursuing an important national mission.

We appreciate the courtesy and cooperation of the GAO officials in conducting their review over the past year, as well as the open and forthright manner in which they have presented and examined the issues with us. Their suggestions have been helpful and have contributed to improving the presentation of SEMATECH's financial statements, and we look forward to continuing to work with you in the future.

Sincerely,



W. J. Spender
President and Chief Executive Officer

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