AMD

Global Accountability

A Measure of Our Success

About this report

This report provides information on programs addressing environmental protection, social responsibility, and economic performance at Advanced Micro Devices, Inc. (AMD) and subsidiaries under its operational control. Operational data contained in the report is for AMD wholly-owned and operated manufacturing facilities for the period January 1, 2003 through December 31, 2003. Additionally, information is included for FASL LLC, a company formed June 30, 2003 by the integration of AMD's and Fujitsu's Flash memory operations in which AMD owns a 60-percent share. This report incorporates elements of the Global Reporting Initiative (GRI) and Organization for Economic Cooperation and Development (OECD) Guidelines for Multinational Corporations.

For the purposes of this report, references to "AMD" include subsidiaries that are wholly-owned or under AMD's operational control, including FASL LLC beginning June 30, 2003, except where explicitly noted.

AMD has produced annual reports on its environmental, health, and safety (EHS) operations since 1995. The company added aspects of economic and social responsibility in our first Sustainability Progress Report covering 2000.

AMD is interested in your opinion of this report. If you have comments or questions about the report, please contact Philip.Trowbridge@amd.com or call 512.602.1086 (U.S.).

Due to the complex nature of the data provided in this report, adjustments may be necessary as new information is received. To obtain the most current information, please refer to AMD's website (http://www.amd.com/ehs/) to view the following reports and information:

• 2003 Sustainability Progress Report
• Global Climate Protection Plan
• AMD Toxic Release Inventory Information
• Annual reports for prior years

AMD's Community Affairs brochure is available at:
http://www.amd.com/communityaffairs

AMD's 2003 Annual Report on Form 10-K is available at:
http://www.amd.com/annualreport

Letter from the CEO

To My Fellow Stakeholders —

The great challenges facing our world today can no longer be solved by a single government, company, or interest group. Today's challenges require innovative partnerships with communities, employees, customers, and investors. Such partnerships continue to advance our social, environmental, and economic responsibility as a sustainable global citizen.

We have seen the incredible power technology has to change lives for the better — through education, business, health, and sciences. We also realize that technology is only as powerful as it is accessible. Building social value as a technology company is not just accomplished by creating faster, more powerful, more efficient technology. It is also accomplished by placing this technology into the hands of a greater percentage of the world's population — enabling a new generation of technology-capable citizens. With our 50x15 initiative, AMD is encouraging others to join us in our commitment to empower 50 percent of the world's population with affordable, accessible Internet access by 2015. That is social value. That is the new AMD.

2003 was a pivotal year for AMD. It was a year in which we rededicated ourselves to leadership. In addition to introducing our 50x15 campaign, we introduced our AMD64 technology and our commitment to leading the computer industry to pervasive 64-bit computing. We formed a landmark Flash memory partnership with our friends at Fujitsu, working to integrate our two operations while becoming the undisputed leader in the NOR Flash segment. And we strengthened our commitment to our community partners with the announcement of a new 300 millimeter wafer fabrication facility in Dresden, Germany — extending our great relationship with that city. Finally, we returned to profitability with innovative products, world-class manufacturing and a more flexible business model — one fine-tuned to enable us to respond to new opportunities and trends.

At AMD, we will continue to build social value, not just by making a profit, but by making a difference and by being a committed, sustainable member of the global community.

I hope you will read this 2003 Sustainability Report and feel the same pride as the 14,000 employees who made it all happen.

Best Regards,

Hector de J. Ruiz
President and Chief Executive Officer

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Innovating for Customers

AMD is a global supplier of integrated circuits for the computing, communications, and consumer electronics markets. The company produces microprocessors, Flash memory devices, and silicon solutions for communications and networking applications.

AMD has sales offices in major cities around the world and is responsible for manufacturing facilities in the United States, Europe, Japan, and Asia. Founded in 1969 and based in Sunnyvale, California, AMD is a global company deriving nearly 80 percent of its 2003 revenues from international markets. Shares of the company trade on the New York Stock Exchange under the symbol AMD.

AMD develops products through an intense focus on innovation that meets customer needs, and not technology for its own sake. The guiding philosophy of "customer-centric innovation" influences decision-making at AMD, driving everything from product development to relationships with partners, customers, and end-users of our products.

AMD is compelled to keep looking for the next opportunity to succeed, whether it is the development of innovative, customer-focused technologies or the chance to share hard work and rewards with valued end-users, partners, and customers. The culture of AMD is characterized by an indomitable will to persevere and prosper in one of the world's most competitive industries.

Corporate Data

Headquarters: Sunnyvale, California

Established: 1969

Employees: 14,353 (Includes approximately 6,900 FASL LLC employees)

New York Stock Exchange Listing: AMD

2003 Sales: $3.5 Billion

AMD Products

Computation Products

Millions of home and business users around the world rely on the industry-leading performance of the Microsoft® Windows® operating environment running on AMD microprocessors to power their desktop and mobile personal computers (PCs), workstations, and servers.

Some of the world's leading global computer makers, including such premier companies as Fujitsu-Siemens, HP, IBM, and Sun Microsystems, sell personal and enterprise computer systems based on the AMD Athlon™ and AMD Opteron™ processors. The **award-winning AMD Opteron processor** for enterprise-class servers is available in one- to eight-way servers that can be used in a variety of applications including business processing and business intelligence. The AMD Opteron processor is also available in one- to four-way workstation solutions that can be used in applications, such as engineering and digital content creative software, and other information technology infrastructure, such as intensive Web serving and messaging. These processors enable businesses to migrate to 64-bit computing at their own pace by delivering outstanding performance on both 32-bit and 64-bit applications.

Both the AMD Opteron and the AMD Athlon 64 processors feature AMD64 technology, the first 64-bit microprocessor technology compatible with x86, the industry's most common microprocessor architecture. The AMD Opteron processor for servers and workstations, and the AMD Athlon 64 processor, which extends the performance of 64-bit computing to desktop and mobile PCs, are currently the only x86-based processors designed to run both today's 32-bit software as well as the next generation of industry-standard 64-bit software without compromise. AMD Opteron and AMD Athlon 64 processors extend AMD's heritage of delivering exceptional performance to end users and contribute to AMD's vision of pervasive 64-bit computing.

Non-Volatile Flash Memory

Flash memory is a critical enabling technology for a wide variety of products such as mobile phones, consumer electronics, automotive systems, PCs and peripherals, and networking and telecommunications devices because it retains information in the absence of power. AMD and Fujitsu Limited market and distribute Flash memory products under the **Spansion™ global product brand name.** Spansion Flash memory solutions, based on two main technologies, floating gate technology and MirrorBit™ technology, encompass a broad spectrum of densities and features to support a wide range of markets. The innovative MirrorBit architecture allows two bits of data to be stored in a single cell, thereby doubling the density or storage capacity of each memory cell. Spansion products are also available with other benefits including Advanced Sector Protection, which improves security, and award-winning simultaneous read-write technology, which improves system performance.

Personal Connectivity Solutions

AMD's Personal Connectivity Solutions Group (PCSG) offers low-power, high-performance embedded microprocessor products for personal connectivity devices. **AMD Alchemy™ solutions** include low-power, high-performance MIPS® technology-based processors and wireless technologies for portable media players and Internet access points. The AMD Geode™ Solutions family of integrated x86 processors includes x86-based embedded processors that are optimized for power and performance. **AMD Geode processors** are targeted for four main market segments: "enterprise thin-client" computer systems, low-cost network appliances, set-top boxes, and personal access devices. These offerings provide balance to AMD's product portfolio and position the company to provide x86 solutions across all market sectors. These products also position AMD for success in emerging markets.
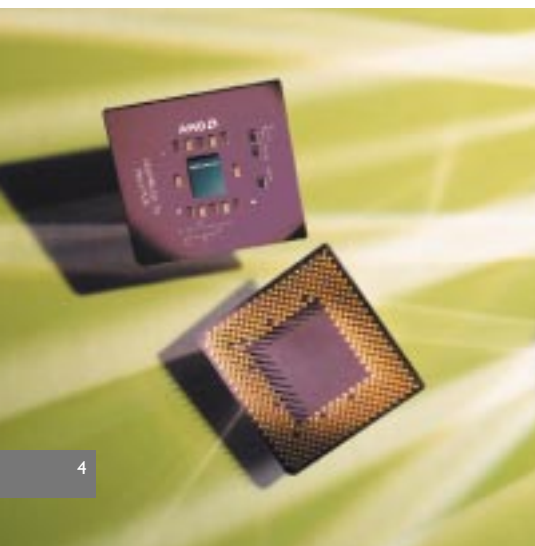
2003 Highlights and Lowlights

AMD competes in an industry where operational flexibility is required to build competitive leading-edge technologies. The company experienced several significant developments in 2003 and early 2004:

- In January 2003, **AMD and IBM announced a joint development agreement** on advanced chip-manufacturing technologies. AMD and IBM engineers work together at IBM's Semiconductor Research and Development Center located in East Fishkill, New York.

- In February 2003, AMD implemented planned workforce reductions announced in November 2002. The reductions affected approximately 2,000 AMD employees and contractors from November 2002 through June 2003.

- In April 2003, AMD introduced the AMD Opteron processor for servers and workstations, **the first 64-bit processor** compatible with the industry-standard x86 architecture and the highest performing 2-way and 4-way processor for servers.

- In June 2003, AMD acquired Coatue Corporation, a polymer memory technology, research and development company located in Woburn, Massachusetts, to complement its Flash memory operations.

- In June 2003, AMD and Fujitsu Limited (Fujitsu) completed formation of a new Flash memory semiconductor company, **creating a company dedicated to Flash memory products.** The company, FASL LLC, manufactures solutions under the Spansion brand name.

- In August 2003, AMD acquired the Geode product family from the National Semiconductor Corporation (NSC). The AMD Geode product family is an integrated silicon and system solution set designed with embedded x86 processors optimized for power and performance.

- In September 2003, AMD introduced the first 64-bit PC processors compatible with the Windows® operating environment—the AMD Athlon 64 FX processor and AMD Athlon 64 processor for desktop and mobile systems. The processors deliver both the current industry standard 32-bit capability and the next generation 64-bit capability.

- In October 2003, AMD, Infineon Technologies AG, and DuPont Photomasks celebrated the opening of the Advanced Mask Technology Center (AMTC) in Dresden, Germany. AMTC will provide research and pilot production of next-generation lithographic photomasks.

- In November 2003, AMD broke ground on **AMD Fab 36, a 300 millimeter wafer manufacturing facility** adjacent to AMD Fab 30 in Dresden, Germany. The new facility is expected to be in volume production in 2006 and employ approximately 1,000 people.

- In November 2003, AMD formed a strategic alliance with Sun Microsystems to deliver AMD Opteron processor-based systems. The alliance's plans also include long-term joint technology development to create future hardware and software offerings.

- In December 2003, AMD and BLX IC Design Corporation Ltd. jointly opened the **AMD/BLX Computing Client Development Center in Beijing, China.** The Center will integrate AMD and BLX technologies and solutions at different levels to deliver innovative thin-client solutions to customers in the China region.

- In December 2003, AMD and Founder Group announced plans to establish a new joint Platform Development Lab in Beijing, China. The Lab will develop products targeted at information appliances beyond the PC market, initially focusing on digital media centers for the home.

- In January 2004, despite returning to profitability in the fourth quarter of 2003, AMD posted a net loss of $274 million for the year.

- In February 2004, AMD formed a new, wholly-owned subsidiary, Advanced Micro Devices (China) Co., Ltd. that will allow the company to conduct a wider range of business operations in the People's Republic of China.

FASL LLC

AMD contributed its Flash memory group to the new company including facilities located in Austin, Texas; Bangkok, Thailand; Penang, Malaysia; Sunnyvale, California; and Suzhou, China. Fujitsu contributed its Flash memory business division and a final assembly and test facility near Kuala Lumpur, Malaysia. Fujitsu and AMD jointly contributed assets from their original manufacturing joint venture, Fujitsu AMD Semiconductor Limited located in Aizu-Wakamatsu, Japan. FASL LLC employs approximately 6,900 people.

Living Our Values

AMD is driven by a set of institutionalized core values. Our purpose is to empower people to lead more productive lives. Our vision is a world that is enhanced through information technology that liberates the mind. The company's central belief is that people are the ultimate source of our competitive advantage.

Our Corporate Values

• Respect for People

• Integrity and Responsibility

• Knowledge

• Initiative and Accountability

• Competition

• Our Customers' Success

Corporate Governance

The manner in which a company is governed is critical to ensuring that it serves the interests of its stockholders while preserving the trust of its stakeholders. The AMD Board of Directors is committed to maintaining the highest standards of corporate governance driving AMD's core values from the top down. The company has posted its corporate governance guidelines, which provide a framework for the Board of Directors' oversight activities devoted to protecting and advancing the long-term interests of stockholders and other stakeholders, on the Investor Relations page of www.amd.com. The guidelines cover Board composition, compensation, committee structure, relationship with senior management, and performance evaluations. The guidelines also reinforce the policy that a substantial majority of the Board members must be independent directors.

The AMD Board consists of nine members and three committees that are responsible for review and oversight of company strategy and practices. The three committees are the Audit Committee, Compensation Committee, and Nominating and Corporate Governance Committee. The committee members and their Chairs are selected by the Nominating and Corporate Governance Committee and then appointed by the Board annually. In accordance with AMD's corporate governance guidelines, a majority of members of the Board must meet the criteria for independence as required by applicable law and the New York Stock Exchange standards. In addition to determining the skills and experience required of members of the Board, the Nominating and Corporate Governance Committee is responsible for making recommendations to the Board on all corporate governance issues.

Ethics at AMD

Corporate accounting scandals in recent years have eroded the public's confidence in corporate governance. AMD has always maintained the highest ethical standards in its business, and it continues to respond appropriately to maintain the trust of its stakeholders. In 2003, AMD established its **Code of Ethics** that commits the CEO, CFO, and other senior finance executives to the highest ethical standards as well as compliance with regard to financial transactions, reporting, and disclosure. The Code outlines business, accounting, and financial reporting principles; conflicts of interest; and compliance requirements. The Code and other AMD corporate governance information are available on AMD's Investor Relations page on AMD's website: http://www.amd.com

AMD and FASL LLC adhere to a corporate stock trading policy that requires employees with material inside information to refrain from trading AMD stock, including stock options, until the information is publicly available.

In addition to the Code of Ethics and insider-trading policy, **employees can turn to the AMD Legal Resource Center** (LRC) with questions concerning trading and other ethical or legal issues. The LRC is an online center that provides practical information and training to help employees recognize legal, compliance, and ethical issues and when to seek legal advice from in-house staff.

Internal Audit

AMD has a strong Internal Audit and Control function that provides independent, objective assurance, and consulting support for the company's global business and financial operations. The group applies a systematic, disciplined risk management approach to review systems and process controls, as well as identifying value-adding opportunities for improving operational and fiscal efficiency. The Internal Audit and Control Department reports to the Chair of the Board's Audit Committee and to the CFO, and serves as a staff function for the Audit Committee.

The integrity of an organization begins with the personal and professional commitment of each and every employee to a set of core values. AMD is committed to the highest standards of integrity in all aspects of business and is responsible to all stakeholders. To address ethics at all levels of the organization, AMD's Board also adopted a broader code of ethics entitled, **"Worldwide Standards of Business Conduct,"** that embeds the core values of integrity, responsibility, and respect for people and applies to all directors and employees. These **ethical standards help enrich the quality of our business decisions** by forming the foundation for how we conduct business in the global environment with respect to cultures, regulations, and requirements. The standards are guidelines for a broad range of ethics, policy, and compliance issues such as conflicts of interest, business and accounting practices, political activities and contributions, gifts and gratuities, and financial interests in other businesses.

The company has processes for employees to anonymously report concerns about suspected non-compliance with the Worldwide Standards of Business Conduct. **AMD subscribes to Alertline®** to provide employees worldwide with access 24 hours a day, seven days a week to communications specialists who gather specific information about employee concerns.

Samaritan Center
Ethics in Business Award

AMD received the Ethics in Business Award for exemplifying high ethical standards and practices in the workplace. The award was given by a partnership between St. Edward's University and the Interfaith Samaritan Center located in Austin, Texas.

Operating and Managing
for a Sustainable Tomorrow

At AMD, what matters most is what is right, not who is right. The company's unwavering commitment to responsible corporate behavior is not limited to an obligation to stockholders, employees, or even the communities in which it operates. AMD's innovative products have the capacity to facilitate life-altering improvements for people around the world by opening new avenues to communication, education, and success. AMD has a vision of a world where market forces fuel the engine of innovation in a free and open competitive environment that bridges the gap between the "haves" and "have-nots." True innovation means delivering the best possible technology to the widest possible audience. Simple, reliable industry standards reduce the risk of a short product life, maintain stability, and promote affordability while helping to ensure that innovations can be employed across the broadest set of users.

Like the rest of the technology sector, AMD has faced challenging economic conditions over the past several years. AMD survived these challenges and has emerged as a technology and innovation leader that is stronger, more efficient, more responsive, and intensely focused on delivering the solutions that our customers want and need to succeed and differentiate themselves.

Attaining new levels of customer-centric innovation made 2003 one of the most exciting years in AMD's history as all major product groups saw breakthroughs in the areas of new product releases, important acquisitions, or partnerships with industry leaders. AMD reinforced its commitment to making customer-centric innovation a core strategic element. By working with partners and customers to develop solutions that enable customers to differentiate their products, AMD can become successful through its customers' successes.

Connections

Customer-centric innovation

Differentiation   **Solutions**

Expanding **connections** with customers, partners, and end-users

Evolving beyond technologies and products to **solutions**

Enabling meaningful customer **differentiation** at declining costs

The Journey

AMD believes that corporate sustainability is a journey that creates long-term shareholder value by managing economic, social, and environmental risks and opportunities. By institutionalizing these three pillars of sustainability into decision-making, AMD can maximize its value to society.

Over the last two decades, the incredible power of technology has changed education, business, health, and the sciences. For much of that history, the focus has been on creating faster, more powerful, and more efficient technology. However, technology is only as powerful as it is accessible. Technology alone can do little, but it comes alive in the hands of people that can realize its potential.

The social aspects of technology present unique challenges that need to be addressed. Socio-economic status, gender, age, and physical location all create barriers to technology adoption. Other factors, such

as complex industry nomenclature and an inadequate understanding of the benefits the technology provides to the end-user, create confusion. These challenges can no longer be solved by a single government, company, or non-governmental organization—they require innovative partnerships. AMD's focus on emerging markets with the 50x15 initiative seeks to break down these barriers and empower a new generation of technology-capable consumers, while being true to the company's values as responsible stewards of the global and local environments.

Moving forward, AMD's priorities are to improve operational efficiencies, maintain a safe and healthful working environment, reduce the overall environmental impact of our operations and products, and build a talented and diverse workforce that supports the business strategy. Company environmental and social goals for 2004 and beyond are provided in Table I.

Table I: AMD's Environmental and Social Goals

Environmental

Water use (as measured by liters / manufacturing index*) will be reduced 40% by 2007 year-end against a baseline year of 2002

Greenhouse gas emissions (as measured by carbon equivalent emissions / manufacturing index) will be reduced 40% by 2007 year-end against a baseline year of 2002. Supporting goals:

  o Absolute PFC emissions (as measured by metric tons of carbon equivalent emissions) will be reduced 50% by 2010 year-end against a baseline year of 1995

  o Energy use (as measured by kilowatt-hours / manufacturing index) will be reduced 30% by 2007 year-end against a baseline year of 2002

Regulated waste destined for disposal (as measured by kilograms / manufacturing index) will be reduced 10% by 2007 year-end against a baseline year of 2002

Landfilled waste will be reduced by 1000 metric tons by 2007 year-end against a baseline year of 2002

Social

Continuously reduce occupational injury and illness cases through prevention, education, and leadership

Strengthen our leadership assessment, and develop succession-planning process

Establish a talent service capability that supports AMD's "Hire to Retire" process

Utilize AMD's resources (financial and in-kind donations) to impact community needs and support AMD's business

*The manufacturing index is derived from the number of wafers processed, the complexity of the fabrication process, and the wafer size.

At the World Economic Forum in January 2004, AMD and other technology leaders launched the "50x15" initiative, an effort to provide access to technology to 50 percent of the world's population—particularly those in developing countries in the Far East and Latin America—by 2015. The AMD Geode™ technology acquired by AMD in mid-2003 will play a key role in this effort. Geode processors are inexpensive, low-power products that fit into many different form factors, allowing more people to access technology.

Management Systems

The company's organizational structure began a smooth but significant transition in 2003 as a result of the formation of FASL LLC.

Although the FASL LLC Board of Managers is composed of AMD and Fujitsu executives, AMD assumed operational responsibility for all FASL LLC facilities that were formerly operated by Fujitsu under the prior AMD-Fujitsu joint venture. Additionally, several AMD facilities were incorporated into the new company. While the sharing of operational programs and policies continues, the over-riding philosophy during this transitional period is to focus on extracting and implementing best practices for manufacturing, human resource management, and EHS.

Despite significant changes in the organizational structure related to the formation of FASL LLC, AMD's overall management structure remained relatively unchanged. Key corporate officers and executives comprise AMD's Executive Committee chaired by the Chief Executive Officer. The Executive Committee focuses on identifying and implementing key strategic initiatives that require collective leadership attention across functions or business units. **AMD uses a "balanced scorecard" approach** to help ensure the alignment of functional groups and business units with overall corporate strategic thrusts.

Strategic activities supporting AMD's economic, social, and environmental efforts are coordinated through other executive management committees that create long-term value for our stakeholders by embracing opportunities and managing risks. For example, AMD's **Global Community Affairs Council** develops strategies that advance the company's corporate giving and community involvement programs. Similarly, the Executive EHS Committee oversees the company's EHS performance and strategic direction. In addition to these global committees, each site has committees or groups dedicated to addressing similar issues on a local basis. AMD also has an **Executive EHS Stewardship Program** where key executives champion strategic EHS challenges such as employee health and safety, product stewardship, and resource conservation initiatives.

AMD's Corporate Supply Management and Logistics division received the 2003 Excellence in Innovative Supply Management Award at the annual Southwest Purchasing Conference held in Dallas, Texas. The award recognizes best-in-class benchmarks in the areas of leadership, innovation and continuous improvement, strategic planning and management, performance measurement, process management, ethics, professionalism, and other supply-management focus areas.

EHS Management Systems

All AMD manufacturing and research and development facilities, including the newly added FASL LLC facilities, have environmental management systems. All manufacturing facilities are certified to the International Organization for Standardization (ISO) Environmental Management System Standard, ISO 14001. Several facilities, including Austin, Bangkok, Penang, and Singapore have established EHS management systems by combining certification to ISO 14001 with certification to the Occupational Health and Safety Assessment Series (OHSAS) 18001 standard. Certificates are available at: http://www.amd.com/quality

Site EHS management systems are based on a single set of EHS standards that are applied equally worldwide. An integral part of these systems is AMD's worldwide audit and assessment program. Periodic third-party audits ensure compliance with applicable laws.

Audits were performed at the company's Austin and Sunnyvale locations in 2003. In-house assessments ensure alignment with AMD's own global standards. AMD personnel from other manufacturing locations conduct the assessments to promote cross-cultural information exchange and experience. Standards assessments were completed in Austin, Dresden, Penang, and Sunnyvale.

Each AMD facility tracks EHS laws and regulations that apply to its operations. Subscription services from regulatory publishing firms, trade association notifications, as well as personal contact with the regulatory authorities are typically used to obtain the latest laws and regulations. AMD's Law Department supplements these services by providing specific updates and assistance as needed.

AMD Advanced Precision Manufacturing (APM) is a suite of patented or patent-pending technologies and software applications that form the foundation of our manufacturing strength and competitiveness. APM automates some of the decision-making, material movement, and yield management technologies to enable a more efficient wafer fabrication operation. Using APM adds flexibility to the manufacturing process, allowing product enhancements to be quickly and efficiently integrated into the manufacturing process. APM is used in FASL Fab 25 and AMD Fab 30. AMD plans to integrate APM into other FASL LLC wafer manufacturing locations as needed as well as into our new 300 millimeter wafer manufacturing facility, AMD Fab 36, which is currently under construction. For more information, visit: www.amd.com/manufacturing

AMD recognized Cintas Cleanroom Resources, Matheson Tri-Gas, and Solvay Interox with World-Class Supplier Achievement Awards for demonstrating commitment, superior execution, and outstanding performance as key AMD suppliers.

Quality Management Systems

An extension of AMD's customer-centric focus is the belief that customers should not experience any problem when designing in, manufacturing with, or supporting systems that include AMD products. The company uses a multi-dimensional and cross-functional approach to produce high-quality and highly-reliable products. AMD's quality management system incorporates supplier quality control, stringent raw material and manufacturing process control systems, and final testing to ensure operational consistency, efficiency, and the ability to meet customer requirements. World-Class Supplier (WCS), World-Class Manufacturing, Customer Quality, and other quality programs drive continuous improvement in all processes related to developing, manufacturing, and supporting products. AMD and FASL LLC manufacturing locations are certified to widely recognized quality management system standards ISO 9002:2002 or ISO/TS 16949, depending on market and customer requirements. Certificates are available at: http://www.amd.com/quality

Supply Chain Management

AMD uses a multi-tiered, risk-based approach for reviewing suppliers. The company has been auditing waste management service providers for more than 10 years. In 1999, chemical suppliers were added to the program; and the EHS assessment of critical chemical suppliers was subsequently included as part of AMD's WCS program, which promotes continuous improvement through supplier partnering to reduce risk and variability in AMD's manufacturing process. The program is a standard business practice for AMD that includes processes for driving improvement, monitoring supplier performance, assessing the effectiveness of supplier business and quality systems, matching technology roadmaps, and recognizing supplier excellence.

Markus Dilger thanks Simone Illing and Mike Exterkamp of the AMTC for the first mask out of the new joint venture between AMD, Infineon Technologies, and DuPont Photomasks located in Dresden, Germany.

AMD continues to utilize external resources to augment the company's existing manufacturing capacity. Initial assessments and periodic reviews of the EHS programs of these service providers are another aspect of our supply chain management program. These reviews emphasize the importance of strong environmental, life safety, emergency response, and employee health and welfare programs.

A pre-qualification assessment process for large construction projects was added to the program in 2000 and has been successfully used as part of the contractor selection criteria for awarding building contracts. The assessment process was used to review the contract to build AMD's new test, mark, and pack facility in Singapore. In 2001, the program was further expanded to include contract manufacturing service providers.

Principal Industry and Business Associations

The global proliferation of standards and regulatory initiatives with the potential to impact electronics products has necessitated a significant collaborative effort by industry to monitor—and in many cases help influence—their development. AMD's participation in industry, trade, and business groups helps shape the future of the global semiconductor industry. Company personnel participate on committees at all levels for a wide variety of groups establishing national and international standards, evaluating the potential impact of proposed regulatory initiatives, and promoting sustainable business practices. In addition to AMD's participation in technical standards-setting organizations, company personnel are active members on committees and subcommittees for a wide variety of groups,

including, but not limited to, the European Semiconductor Industry Association, the Semiconductor Industry Association, the World Semiconductor Council, the Electronics Industries Alliance, the AeA, and Semiconductor Equipment and Materials International. AMD is also an active participant in many local associations around the world.
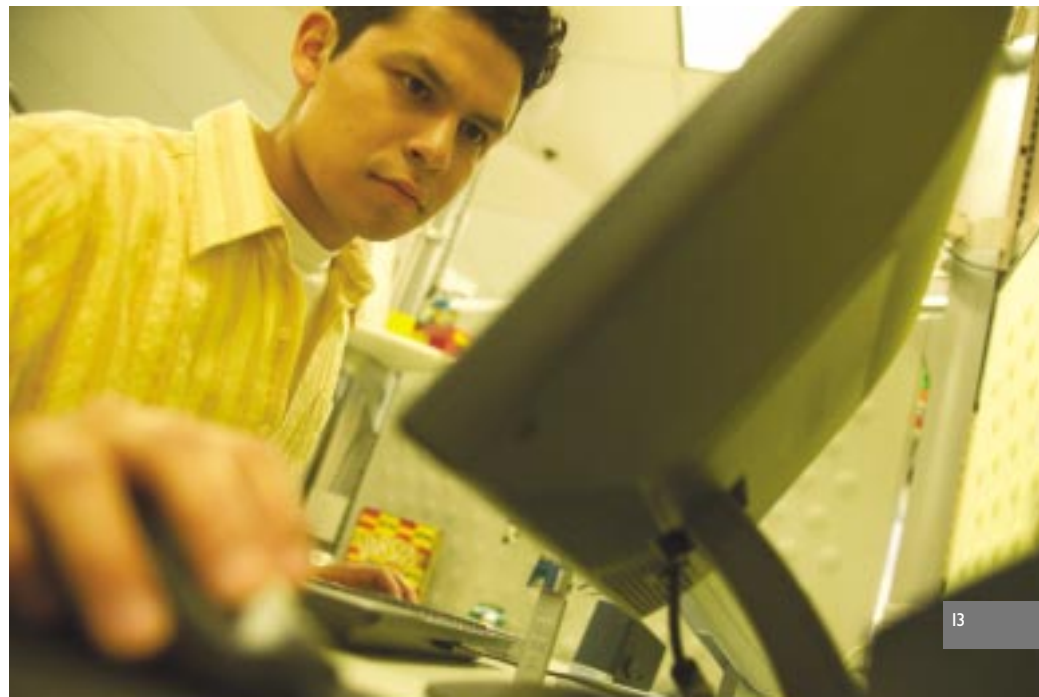
Economic Performance

Following two consecutive years of a weakened sector, the semiconductor industry exhibited signs of a recovery in 2003. This recovery contributed to an improvement in AMD's operating results with a 30-percent increase in net sales for 2003 compared to 2002 and a return to profitability in the fourth quarter of 2003. Computation Products net sales grew 12 percent in 2003 compared to 2002, due primarily to an increase in demand and an associated increase in unit shipments of microprocessors. Computation Products includes microprocessor products and chipsets. Memory Products net sales increased 92 percent compared to 2002. While the increase was primarily attributable to the consolidation of FASL LLC's results of operations, which include sales by FASL LLC to Fujitsu Limited, AMD experienced an increase in demand for Flash memory products. Memory Products includes Spansion™ Flash memory products. Computation Products and Memory sales accounted for approximately 56 percent and 40 percent, respectively, of net sales, while sales of Personal Connectivity Solutions Group Products accounted for the remaining four percent.

Tables 2 and 3 present a summary of financial highlights from AMD's 2003 Annual Report on Form 10-K. More detailed financial information is available in AMD's 2003 Annual Report on Form 10-K and its other filings with the U.S. Securities and Exchange Commission, which can be found at: http://www.amd.com/annualreport

Table 2 (U.S. dollars in thousands)

Three Years Ended December 28, 2003	2003	2002	2001
Total Net Sales	$ 3,519,168	$ 2,697,029	$ 3,891,754
Operating loss	(233,384)	(1,225,386)	(58,258)
Net loss	(274,490)	(1,303,012)	(60,581)
Research and Development	852,075	816,114	650,930
Provision (benefit) for income taxes	2,936	44,586	(14,463)
Effective Tax Rate	1.1%	3.5%	(15.4)%
Total Assets	7,094,345	5,710,318	5,647,242
Change in Retained Earnings	(274,777)	(1,303,012)	(60,581)

Table 3 (U.S. dollars in thousands)

Sales to External Customers	2003	2002	2001
United States*	$ 720,679	$ 736,566	$ 1,282,663
Japan	575,479	251,673	217,667
Korea	316,893	339,740	279,898
Europe	1,179,474	945,836	1,492,428
Other Countries	726,643	423,214	619,098
Total	3,519,168	2,697,029	3,891,754

* Includes insignificant amount of sales in Canada

> "The successful execution of sustainability strategy at **AMD** positions it among the leaders in its (the semiconductor) industry. **AMD's** capabilities in mitigating the challenge in the economic dimension are among the best in the industry. In the environmental dimension, **AMD** performs above the industry average with a very good performance in its environmental management system and eco-efficiency. Moreover, **AMD** performs among the best in the social dimension."
>
> *—SAM Research Inc., November 20, 2003*

04

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**Sustainability
Indexes**

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FASL LLC

The formation of FASL LLC, effective June 30, 2003, extended the decade-long manufacturing joint venture between AMD and Fujitsu Limited (Fujitsu), combining the Flash memory businesses of both parties and creating a global NOR Flash memory powerhouse. FASL LLC is 60 percent owned by AMD and 40 percent owned by Fujitsu. AMD began consolidating the results of FASL LLC operations in the third quarter of 2003.

AMD remained in the Financial Times Stock Exchange (FTSE) 4Good U.S. Index, and the Dow Jones Sustainability World Index in 2003. Both indexes recognize companies with proactive policies and practices that meet globally recognized corporate responsibility standards.

Social Performance

Building Stakeholder Relationships

Meeting the needs of customers is undeniably linked to promoting the well-being of staff, achieving outstanding performance for our stockholders, and supporting the needs of the communities in which we operate. As a global partner and employer, AMD maintains relationships with a wide range of stakeholders; actively managing these relationships helps ensure their relevance and value to the stakeholder.

Stakeholder	How We Engage
Employees	Employee satisfaction surveys Functional group communication meetings Bi-weekly newsletter Quarterly employee magazine (Dialog) Quarterly state-of-the-business meetings Regular electronic communications and internal website updates to all employees
Investors	Reports filed with U.S. Securities and Exchange Commission Annual Report, Sustainability Progress Report, Global Climate Protection Plan, and other published corporate information on the AMD website Meetings with and presentations to investor groups Responses to inquiries from investor research groups Stockholder support through the AMD Investor Relations department
Customers	Performance-based surveys/customer satisfaction surveys Responses to inquiries from customers on product content and other information Quarterly business reviews Technical review meetings Distributor conferences Reseller summits Customer report cards
Suppliers	Supplier Quality Audits and ratings including follow-up meetings Formal assessment of supplier EHS programs World-Class Supplier Program
Non-Governmental Organizations	Interaction through industry and trade groups
Communities	Volunteerism Philanthropy Participation in community organizations and committees Establishing relationships with local leaders Involvement in local and global issues of concern
Governments	Meetings with regulators and officials Participation in the legislative development process via industry associations
Academic Institutions	Research funding Student internships and mentoring Funding of endowed chairs

AMD nurtures stakeholder relationships with effective dialogue and two-way communication. Internally, the focus is on communicating product development, administrative matters such as benefits, employee health and safety, business conditions, community activities, and strategic direction.

In our dealings with stakeholders, AMD focuses on building relationships and improving transparency. For example, AMD's World-Class Supplier Program creates alliances with critical manufacturing suppliers to drive leadership in technology, quality, and logistics. AMD's sustainability and global climate protection reporting as well as responses to investor research groups, provide deeper insight into company operations that help strengthen relationships with local and global stakeholders. As part of AMD's connection with the community, some sites hold periodic meetings, inviting the local community to discuss and address questions or concerns about AMD's operations.

Employee feedback on policies, work culture, employee development strategies, and training programs is critical to the employee satisfaction within an organization. The most extensive recent survey of AMD employees investigated why employees stay with the company and what they value most in their work environment. Based on the survey results, AMD implemented new performance management and compensation strategies and retention training programs for managers. Randomly selected employees are surveyed on a quarterly basis regarding satisfaction levels and the company culture.

Throughout 2003, Dr. Mathias Boettger, First Assistant to the Minister at the Saxony Ministry of Environment and Agriculture, worked in the Environmental Department at AMD's Dresden site. AMD was the first company in Saxony to host such an internship from the Ministry. The program was proposed by the Ministry to provide a better appreciation and understanding of issues faced by the two groups. "This type of government/industry exchange is invaluable for learning how both organizations approach projects, conduct business, and solve problems," said Rich Weigand, Director, Environmental Health and Safety.

Dr. Boettger developed and implemented a communication strategy for AMD Saxony's environmental programs, including drafting the company's first environmental report for the site. Publishing the report provided Dr. Boettger with a broad range of experiences, from understanding the wafer manufacturing process to facilities operations including the day-to-day operational issues associated with semiconductor manufacturing. In addition to the communication strategy, Dr. Boettger organized a workshop to educate regulators and inspectors on the semiconductor manufacturing process and challenges faced when developing and meeting regulatory requirements. "It is difficult for many employees in the administration and the authorities to understand the very rapid technological progress that occurs especially in the semiconductor industry. But, it is possible to solve this problem. It is important to have confidence in the cooperation between enterprises and the authorities," says Dr. Boettger.

Helping People Succeed

AMD was founded on the belief, **"People first. Products and profits will follow."** The cornerstone of AMD's culture and business practices is the company's corporate values, which include respect for people.

Diversity

AMD believes that diversity and cultural differences are qualities that enhance an atmosphere of synergy and creativity, thereby enabling a spirit of success among employees. Employee policies and processes are created and implemented to promote equal opportunity without regard to race, religion, age, ancestry, color, mental or physical disability, medical condition, gender, sexual orientation, marital status, veteran status, family leave care status, or national origin, and to comply with all applicable laws and regulations.

Wages and Benefits

AMD is committed to paying employees competitive wages and providing benefits that help **foster employees' health and financial security.** The nature of semiconductor manufacturing requires that the company attract a well-trained and highly educated workforce. Thus, to remain competitive, AMD constantly monitors the wage structure of the semiconductor and related technology industries. Employees worldwide share in the company's success through a wide range of compensation programs, including profit sharing, an employee stock purchase plan, stock options, and bonus plans.

The company's competitive portfolio of employee benefits includes comprehensive coverage for health and dental care, retirement savings programs with company matching contributions in the US, holiday and vacation time, life and disability insurance, and a variety of work/life balance programs including family care leave, sick childcare assistance, and alternative work plans. In addition, AMD promotes a learning environment through educational programs such as tuition reimbursement for U.S.

employees, and numerous internal employee and management development classes. AMD's employees also benefit from an employee assistance program that provides counsel to help resolve personal and professional issues. Furthermore, after every seven years of service, salaried (exempt) U.S. employees are provided the opportunity to have an extended sabbatical period of paid time away from work for enrichment and revitalization. Hourly (non-exempt) U.S. employees are provided a bonus and paid time away from work after every seven years of service.

AMD, like many other companies, was affected by the weak global economy in 2003, compounded by an especially severe downturn in the information technology sector. The company was forced to take decisive measures to reduce operating costs. One of these measures was a reduction in the company's work force. Consistent with the company's values, AMD approached this issue with respect for employees. Individuals who were affected by the work force reductions were offered competitive severance packages, outplacement assistance, and opportunities for career-training assistance.

AMD's Thailand facility received the "Best Workplace for Women" certificate from the Thailand Ministry of Labor in early 2003. The facility was awarded its first certificate under this government program in 2001, and continues to provide career opportunities and educational resources that enhance the quality of life for women.

Attracting and retaining a highly skilled and motivated workforce is critical to AMD's success. Providing opportunities for personal and professional development enhances the company's appeal in the competition for experienced workers. The company's commitment to development programs, whether in prosperous or uncertain times, is evidenced by an **$8.8 million workforce development budget in 2003.**

AMD provides a wide array of technical, management, and leadership training programs for employees with differing levels of work experience to enhance employee knowledge and further contribute to the company's success. Within the company, learning and development initiatives are linked to the specific business goals of the different functional groups. For example, AMD believes that high-quality manufacturing performance begins with high-quality training. To enhance manufacturing performance, specific

For the fourth year in a row, AMD has been recognized by Training Magazine as one of the top 100 companies for training.

technical training is conducted for all manufacturing employees to increase their knowledge and skill with regard to the safe and efficient operation of wafer fabrication equipment in their manufacturing modules.

The company provides a variety of programs for employee enrichment and development including:
- Succession Planning to ensure continuity in executive and mission-critical positions
- Leadership Development to communicate business strategies, expectations, and values, and develop leadership skills
- Mentoring to enhance the development of new or inexperienced employees
- Job Rotation in engineering positions to ensure the best job fit for the new employee and the company
- First-line Supervisor Development to educate new managers about legal, safety and environmental policies, business practices, and company products and markets
- Career Counseling to provide extensive testing and counseling services for employees seeking a change in career path or information on options available to them within the company

"Leaders Developing Leaders"

Leaders Developing Leaders is the method and name of AMD's Leadership Development program. Under the guidance of AMD's Global Leadership Council, the program consists of a series of workshops including the Principles of World-Class Leadership, Experienced Managers Academy, and Directors Global Leadership Institute. The workshops are led by senior executives and supported by Web-based learning tools that review business strategies, expectations, and values.
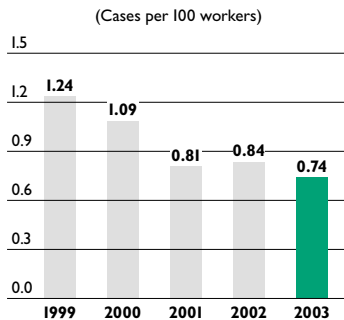
Ensuring a Safe and Healthy Workplace

(Cases per 100 workers)

Figure 1
AMD Worldwide
Occupational Injury and Illness Rates

(Cases per 100 workers)

BLS | SIA OHS | AMD (U.S. Only)

Figure 2
AMD U.S.
Occupational Injury and Illness Rates

(Cases per 100 workers)

BLS | SIA OHS | AMD (U.S. Only)

Figure 3
AMD U.S.
Lost Workday Case Rates

One of AMD's fundamental responsibilities is to provide a safe workplace for employees, contractors, and visitors; and a safe environment for neighboring communities. Health and safety professionals at each manufacturing location implement programs based on company standards that are applied equally across the company. These standards extend beyond regulatory requirements and are based on best practices shared between the sites.

Worldwide Injury and Illness Performance

AMD's goal is to continuously reduce occupational injury and illness cases through prevention, education, and leadership. Stringent engineering and administrative control systems are used to prevent occupational exposure to physical agents
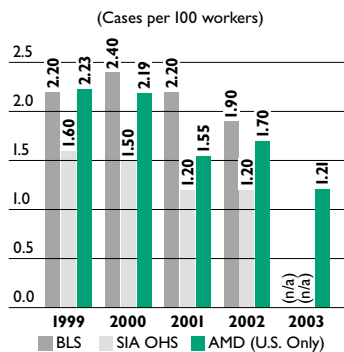
surveillance programs. These programs go beyond verifying the effectiveness of engineering and administrative controls. They are designed to identify any potential health risks, monitor the impact of chemical and physical stressors throughout the course of employment, and manage an employee's ability to routinely perform job tasks.

Figure 1 presents AMD's worldwide occupational injury and illness performance for the last five years. The case rate for 2003 declined compared to 2002, continuing a downward trend since 1999 and demonstrating the company's commitment to continuous improvement in preventing workplace injuries and illnesses. Awareness education and training have been instrumental in reducing the injury and illness rate.

Since 2000, AMD Austin has hosted three symposia designed to strengthen the partnership between area businesses and emergency response agencies. The symposia focused on ensuring the highest level of preventive measures and response capabilities to effectively address emergency response needs in the community. Local businesses and federal and local government emergency response entities have attended the symposia.
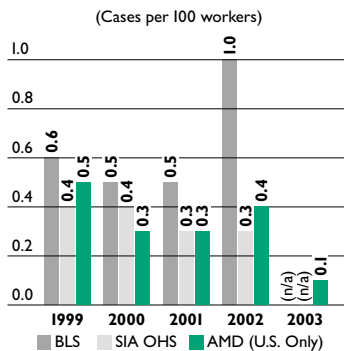
(i.e. noise, lasers, radiation) and chemical and physical hazards. The use, storage, handling, and disposal of hazardous materials are reviewed to ensure proper safeguards are in place before the material is allowed on site. Similarly, all manufacturing equipment is reviewed to ensure proper protection from physical agents and hazards prior to and after installation. AMD establishes strict control measures such as the use of closed process systems, double containment systems, and exhaust ventilation systems to ensure that chemicals do not pose any health risks to the workers. Employees are trained to properly handle, store, and manage hazardous materials, and operate manufacturing equipment and integrated safety systems. Finally, AMD monitors the general health of employees through comprehensive health

Occupational injury and illness rates in the U.S. semiconductor industry are tracked by the U.S. Bureau of Labor and Statistics (BLS) and the Semiconductor Industry Association's (SIA) Occupational Health System (OHS). Figure 2 shows rates for AMD's U.S. operations for the last five years compared to BLS and OHS benchmarks. BLS and OHS data for 2003 are not yet available. However, AMD's improvement in 2003 compared closely with the latest industry data from the OHS for 2002.

Figure 3 presents a summary of lost workday case rates for AMD's U.S. operations for the last five years. AMD's lost workday case rate at U.S. facilities decreased 75 percent in 2003 compared to 2002.

AMD also evaluates types of injuries to quickly identify areas requiring immediate action. Figure 4 presents a breakdown of injuries by type at AMD's U.S. operations for the last five years. The total number of injuries has steadily declined since 1999, consistent with the overall declining injury and illness case rate trend. Although all injury categories declined in 2003 when compared to 2002, ergonomics-related injuries, including repetitive motion injuries, remain the single highest incidents of injury. AMD is continuing to address this injury category with aggressive prevention programs such as workstation evaluations, equipment evaluations, and training and awareness programs.

Health and wellness programs administered by occupational health professionals have been established at each manufacturing and major research and development location. In addition to a medical surveillance program that scrutinizes the health of personnel working in areas of increased risk or hazard potential, each manufacturing facility promotes general health awareness, nutrition, and sports and recreation. Employees receive health and nutrition information via training courses, print and electronic media, or on-site sports and recreation facilities. Eye exams, influenza vaccinations, or blood pressure screenings are just some of the benefits offered at AMD sites.
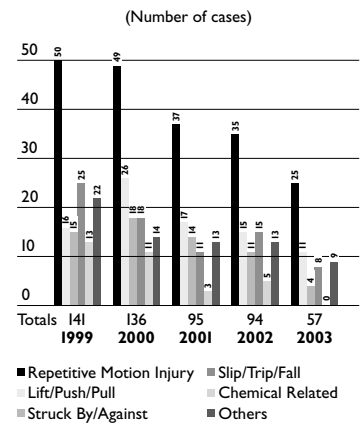
SIA Worker Health Project

AMD is an active participant in all aspects of the Semiconductor Industry Association's (SIA) Worker Health Project. Although in 2001 an independent panel of leading health scientists found no evidence of increased cancer risk from working in clean rooms, the panel recommended further study. SIA created an independent Scientific Advisory Board and hired Johns Hopkins University (JHU) Bloomberg School of Public Health as the lead investigator of a study to determine whether sufficient data were available to conduct a meaningful, scientifically valid, retrospective cancer study. AMD participated in this feasibility study, hosting JHU researchers and sharing historical worker health data. JHU has found that sufficient

data exists, and SIA has decided to proceed with a retrospective epidemiologic study. AMD will continue to support SIA's efforts. SIA is also surveying health surveillance programs and chemical and material screening methodologies at non-semiconductor manufacturing companies to identify transferable best practices.

Severe Acute Respiratory Syndrome (SARS)

The outbreak of Severe Acute Respiratory Syndrome (SARS) had a serious impact on business in the Asia-Pacific region during the first half of 2003. Although AMD's sales declined during this time, the company did not experience a significant impact on manufacturing or distribution operations. AMD closely monitored World Health Organization (WHO) and U.S. Centers for Disease Control and Prevention (CDC) information and provided communications to educate employees on the illness and associated symptoms, precautionary health measures, areas affected by SARS, and an internal contact for additional details. The company implemented travel restrictions to affected areas and a quarantine period for employees and visitors who had returned from or traveled through affected areas. AMD EHS professionals continue to monitor global health issues, as additional SARS cases were reported in the Asia-Pacific region in late 2003 and concerns about the Avian Flu were raised in early 2004.

(Number of cases)

	1999	2000	2001	2002	2003
Repetitive Motion Injury	50	49	37	35	25
Slip/Trip/Fall	16	26	17	15	11
Lift/Push/Pull	15	18	14	11	4
Chemical Related	22	16	11	15	8
Struck By/Against	13	14	13	5	9
Others		13	3	13	0
Totals	141	136	95	94	57

Figure 4
AMD U.S. Operations
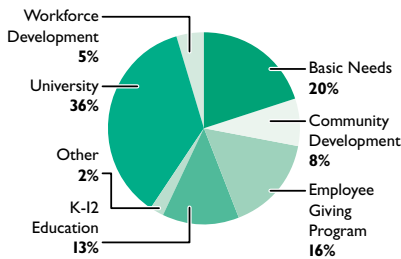**Breakdown of Injuries and Illnesses by Type**

In May 2003, AMD donated $121,000 to the Beijing Civil Affairs Bureau's Donation Receiving Organization, a Chinese government institution focused on providing aid in the battle to neutralize the SARS outbreak. The donation helped provide exposure suits, electric fans, medicine, and other equipment to support medical staff and scientific researchers working in SARS wards across Beijing.
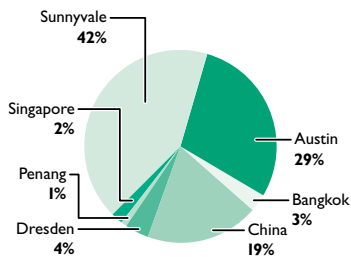
FASL Thailand employees checking their temperature prior to entering the facility as a precautionary measure for controlling SARS.

Partnering with Our Communities

Figure 5
2003 Cash Contributions
by Giving Category

Workforce Development **5%**
University **36%**
Other **2%**
K-l2 Education **13%**
Basic Needs **20%**
Community Development **8%**
Employee Giving Program **16%**

Figure 6
2003 Cash Contributions
by Location

Sunnyvale **42%**
Singapore **2%**
Penang **1%**
Dresden **4%**
China **19%**
Bangkok **3%**
Austin **29%**

AMD recognized the importance of investing in communities more than 20 years ago, when the company's Board voted to set aside a portion of the annual profits to fund charitable contributions. Since then, AMD has consistently maintained a strong commitment to the community, even during challenging financial times. In 2003, total cash and in-kind contributions totaled nearly $6.3 million. Figure 5 presents cash giving by category for 2003 and Figure 6 presents cash and in-kind contributions by site for 2003.

AMD's social vision is simple—to change lives for the better. The company leverages social investments by proactively engaging community partners, strategically investing corporate resources, and empowering people to have a positive impact on local communities. The challenge is to deliver good value from these investments by identifying and understanding the critical issues facing each community and focusing our resources in these areas. While the specific challenges and needs vary from community to community, AMD has identified two general focus areas and priority-giving categories for each.

Strengthening Community

• Basic Needs—Food, shelter, and basic medical care are essential to every member of our community. Funding for basic needs is provided to local health and human service organizations.

• Community Development—AMD is a strong, involved community partner, building relationships with key local groups such as neighbors, elected officials, and community leaders. The company invests in enhancing the quality of life through programs that promote safe neighborhoods and communities, provide affordable housing, enhance natural resources, and promote community involvement and leadership.

Strengthening Education

• K-l2 Education—AMD targets programs that increase student interest and/or proficiency in literacy, math, science, and computer technology. Since great teachers are the key to successful learning, AMD also funds innovative teacher development initiatives.

• University Education—AMD funds numerous university programs via contributions, faculty endowments, student scholarships, and the donation of AMD technology.

• Workforce Development—AMD sponsors a number of workforce development initiatives to introduce students and adults to jobs in the high-tech sector and to equip local citizens with the job skills they need to be self-sufficient.

FASL Thailand volunteers assemble for reforestation activities near Kao Phaengma, Korat. AMD and FASL volunteers have been planting trees in this area for l0 years and the program has now been turned over to the Thailand Department of Forestry.

Daryl Ostrander, Group Vice President, Logic Technology and Manufacturing, donating blood. In 2003, AMD sites hosted 25 blood drives, donating nearly 2,000 units of blood.

AMD partners with local educational institutions and workforce development boards to develop innovative educational programs for future high-tech workers. The company has co-developed high school, community college, and university technology curricula, which enable students to prepare for technical careers in the high-tech industry. AMD employees serve as adjunct faculty, guest lecturers, and advisory committee members to bring real world technology to the classroom. AMD has active university co-op and intern programs, bringing students from local and national universities into the workplace. With the promotion of science and technology curriculums at middle and elementary school levels, the company touches all levels of education. These programs bring new talent into our industry and contribute to the pool of skilled workers for the future. AMD has been recognized at the local and national level for its **leadership in workforce development.**

In addition to financial contributions, AMD empowers employees at all levels to share their time and talents with the community. In 2003, AMD employees devoted nearly **8,000 hours to volunteer activities** and donated nearly 2,000 units of blood.

Other notable community involvement highlights in 2003 included:

- Continued financial support of the Lucille Salter Packard Children's Hospital Medical Imaging Center in Silicon Valley
- Donations totaling approximately $150,000 toward K-12 and university education in China
- Continued funding of the W. J. "Jerry" Sanders III—AMD Endowed Chair in the Electrical and Computer Engineering Department of the University of Illinois
- Partnering with Unión de Empresarios para la Tecnología en la Educación (UNETE) to begin equipping 12 media classrooms in Mexico
- Continued funding of the Housing Trust Fund of Santa Clara County

AMD makes hundreds of grants annually to support critical services and innovative programs administered by nonprofit organizations, schools, and universities located near AMD's facilities throughout the world. Additional details regarding AMD's community affairs programs are available at: http://www.amd.com/communityaffairs

"Just as AMD is determined to succeed in our core businesses, we are determined to help others succeed."

— Hector Ruiz,
AMD President and
Chief Executive Officer

Craig Sander, Vice President, Process Technology Development tutoring a middle-school student.

Environmental Performance

AMD's environmental programs ensure that the company fulfills its fundamental obligations to protect the environment. The challenges of rapid technological change, an evolving business model, increasing stakeholder expectations for corporate sustainability, and product stewardship issues help shape the strategic agenda for the company's environmental programs.

FASL Thailand volunteers contributed their time to a reforestation project in Northern Thailand.

Designing for EHS

For years, the rapid advancement in computing and communications device technologies has led to short product life-cycles and accelerated the rate of electronic equipment obsolescence. The goal of our Design for EHS (DfEHS) program is to produce a safe product with reduced overall environmental footprint to help our customers address life cycle challenges. We accomplish this by introducing environmentally preferable—and technically and economically feasible—materials, manufacturing processes, and features into our products at all stages of product development. Innovative products like the **AMD Athlon 64 microprocessor can help slow the rate of obsolescence** with the ability to run both 32-bit and 64-bit applications, thereby extending product life cycles.

The current climate of increased regulatory activity has component manufacturers, assemblers, and original equipment manufacturers attempting to predict and address the impact of current and future legislation. Within AMD, we continue to monitor and communicate regulatory and customer requirements while focusing specifically on product content, energy efficiency, packing or shipping materials, and manufacturing process design and equipment.

AMD Saxony personnel conducted a Life Cycle Analysis (LCA) of the semiconductor manufacturing process at Fab 30 in Dresden. The analysis was used to test the applicability of the LCA process to identify data gaps and shortcomings as well as help prioritize resource conservation efforts. All inputs and emissions of major production and support operations, as well as life cycle inventories and environmental impact potentials of the supply chain, were included in the evaluation.

Improving Product Content and Packing Materials

The chemical content of electronics products and packing materials remains a high profile issue as concerns about the improper disposal of obsolete products and reducing the volume and environmental impact of packing materials continue. Regulatory initiatives aimed at banning or restricting certain materials such as lead, brominated flame retardants, mercury, and hexavalent chromium in products have increased, particularly in the European Union, U.S., and China. AMD continues to participate in industry groups working on these regulatory issues as well as groups addressing the issue of standardized product material content reporting.

AMD provides customers with extensive chemical content data for all of our products. The information is provided by package type for each product group on AMD's website.

Lead is currently the primary material of concern for AMD products. In 2003, each product line developed a comprehensive roadmap for removing lead from products. The roadmaps are based on customer, regulatory, and AMD's research and development timelines. AMD and FASL LLC technology development groups continue to work independently and with industry organizations to address the lead-free challenge.

The recyclability of electronics products at end-of-life is receiving similar attention. Customers are requesting more detailed data in order to meet mandated recycling targets. Although AMD does not generally sell end-consumer products, the company works closely with customers on their take-back programs by providing product content information to ensure their disassembly and recycling needs are met.

Customer concern about the use of lead, polyvinyl chloride (PVC), and cadmium in packing materials has also increased. The company has taken numerous measures to reduce the environmental impact and increase the recyclability of our packing materials. For example, AMD uses all-brown boxes that contain a higher content of recycled materials and do not require chlorine bleaching. Similarly, nylon pins and neoprene plugs in PVC device tubes have been replaced with PVC pins to increase the recyclability of the assembly.

In 2003, AMD's management system for product and packing material design and selection was improved to ensure that regulatory and customer requirements continue to be met. Internally, product and packing material design specifications were modified to provide the engineering staff with better tools to meet regulatory and customer requirements. Communicating customer and regulatory requirements also extended into our supply chain. The system met, and in many instances, exceeded the requirements of Sony's Green Partner Program.

Product Energy Efficiency

With more than 200 million computers in use in business and residential settings consuming an estimated 85 billion kilowatt-hours per year in the U.S. alone[†], the efficiency of electronics products is more important than ever before. AMD has heard this message and strives to provide energy-efficient solutions with state-of-the-art power management technology for all product categories. In many categories, AMD products are industry leaders. AMD's acquisition of the Geode family of processors in 2003 further complemented our offerings of energy-efficient products.

Spansion Low Voltage and Super Low Voltage Flash memory devices for set-top boxes, PCs and peripherals, cell phones, portable electronics, and network infrastructure equipment are very energy efficient. The products offer Automatic Sleep Mode which reduces power consumption to as low as 360 nanowatts after only 130 nanoseconds of inactivity. For example, 64 megabit, low-voltage Spansion Flash memory devices for 2.5G and 3G cellular phones draw only 200 nanoAmps in standby, a current so low that most test equipment cannot measure it. MirrorBit technology stores twice as much information as previous technologies in a comparable amount of space. For automotive customers, Spansion Flash memory devices allow electronic control of engine and transmission operations, enabling higher fuel efficiencies and increased emissions control.

[†] Horowitz, Noah, Suzanne Foster and Chris Calwell, "Laptop Computers: How Much Energy Do They Use and How Much Can We Save?", NRDC, August 2003.

AMD microprocessor products manage power consumption in mobile PCs, desktop PCs, and servers by support of the Advanced Configuration and Power Interface (ACPI) specification, the industry standard configuration and power management interface for laptops, desktops, and servers. Use of the ACPI global system and processor power management states allows microprocessors to draw very little power and provide for quick access when needed. The HyperTransport™ interconnect technology and QuantiSpeed™ architecture are energy-efficient technologies that enable the processor to perform more instructions per clock cycle and communicate faster.

AMD PowerNow!™ technology is a power-optimizing innovation that offers significant savings in power consumption by allowing the processor to run at only the voltage and frequency required by the applications in use. **Up to 73 percent power savings have been measured with AMD PowerNow! technology enabled.**

AMD's newest microprocessors — AMD Opteron and AMD Athlon 64 processors — are designed for sustainable server, workstation, desktop, and portable computing products, and run existing 32-bit as well as 64-bit software. These microprocessors use innovative Silicon-on-Insulator (SOI) technology, resulting in a lower thermal output. Other energy efficiency advancements include integration of a Double Data Rate memory controller that helps speed system performance by offering the microprocessor a direct connection to main memory.

In late 2003, AMD introduced Cool'n'Quiet™ technology for desktop systems. Based on technology used in mobile processors, **Cool'n'Quiet reduces active power consumption in desktop computers** beyond the ACPI requirements. Using this technology, desktop systems can switch from higher-to-lower power states, delivering performance on demand without compromising performance. The dynamic power switching capability of Cool'n'Quiet technology takes advantage of the fact that 100 percent power is not required 100 percent of the time in most applications. This technology has been incorporated into the AMD Athlon 64 processor and can decrease processor power consumption as much as 60 percent for personal computer systems that are not stressed under heavy loads.

AMD Alchemy Solutions products include high-performance, low-power MIPS-based and x86-based microprocessors and low-power wireless LAN chipsets for personal digital assistants, set top boxes, Web tablets, and portable and wired Internet access devices and gateways. These processors typically use less than one watt of active power and enable additional idle- and sleep-state power-saving modes. The Au1500™ processor incorporates three basic power management modes, including two idle modes that typically reduce power consumption by 65 percent, and a deep-sleep mode in which the processor draws an extremely low 50 microAmps of current. This processor also has a clock enable/disable feature allowing users to shut-off portions of the chip that are not being used. The AMD Geode Solutions family of processors and technology, acquired in 2003, enable high performance and low power using embedded x86 technology.

AMD Athlon™ 64 FX-51 processor received the 2003 Readers' Choice Award as the "Best Innovation in CPUs" from Tom's Hardware Guide.
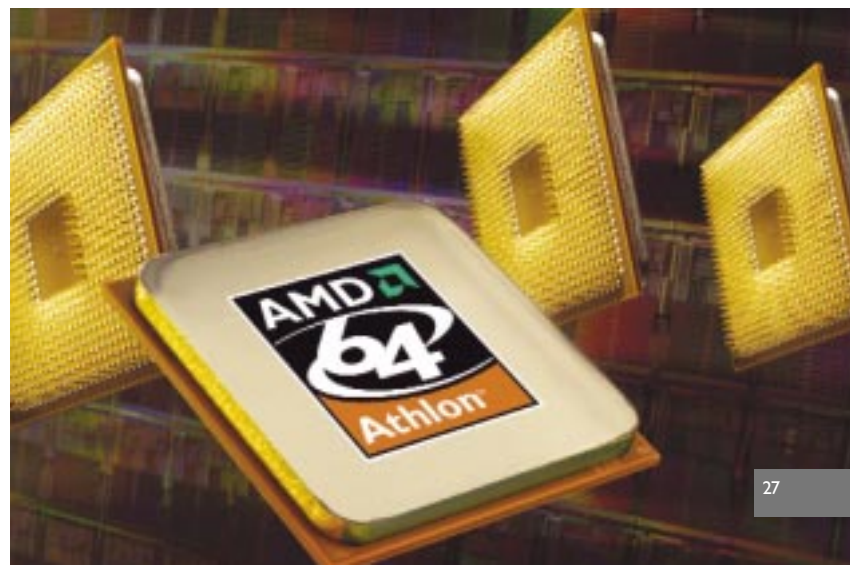
Research and Development

The lifeblood of a technology company is the technology and product pipeline. The extremely high cost of leading-edge technology development makes it necessary for AMD and others to seek development partners, leveraging resources and expertise. In 2003, AMD invested $852 million or approximately 24 percent of net sales in research and development activities for advanced manufacturing processes and manufacturing process technology development. Joint technology and product development ventures with IBM, Sun Microsystems, and others improve the value derived from research and development investments.

Research and development funding is focused primarily on transistor and manufacturing process development, both internal and external to the company. Integrating EHS factors into technology development is a component of AMD's overall research strategy.

International SEMATECH

The accelerating rate of change in leading-edge semiconductor manufacturing requires that EHS concerns be integrated into the process early to provide solutions and reduce costs. The ISMT ESH thrust partnered with technologists working on advanced lithography and "high-k" and "low-k" dielectric materials. Working collaboratively with chemical, equipment, and semiconductor manufacturers, AMD engineers and other International SEMATECH participants conducted several projects to optimize energy and water consumption at semiconductor wafer manufacturing facilities in 2003. Energy projects focus on improving the cost of ownership of existing equipment by demonstrating new, more energy-efficient equipment. Water projects targeted alternative wafer cleaning methods and polishing processes to reduce water consumption and decrease costs.

NSF/SRC Center for Environmentally Benign Semiconductor Manufacturing

AMD is a founding member and active participant in the Center for Environmentally Benign Semiconductor Manufacturing, which is jointly funded by the Semiconductor Research Corporation (SRC) and the National Science Foundation (NSF). The Center is headquartered at the University of Arizona and includes such leading universities as Stanford, MIT, the University of California-Berkeley, Cornell University, Arizona State University, and the University of Maryland. The Center focuses on educating students who are able to combine semiconductor process engineering with an understanding of EHS issues. AMD has hired several graduates of this unique and innovative organization.

Internal Research and Development

AMD continues to undertake initiatives to evaluate and address EHS aspects of future technologies, including development of detailed EHS "roadmaps" for resource conservation and chemical reduction. AMD's New Technology Team consists of EHS professionals from the wafer fabrication sites that meet on a monthly basis to review technology development and transfer. Team members act as liaisons to wafer fabrication process groups and semiconductor packaging design groups. Technology development and EHS professionals work closely to review new materials, equipment, and processes under consideration for future technologies.

Measuring Our Performance

The company collects environmental information from AMD and FASL LLC wafer fabrication, assembly and test, and research and development sites worldwide. This information is presented semiannually to executives and site management. AMD utilizes electricity use, water use, and waste generation as primary indicators of the company's overall environmental performance. A significant amount of additional data is collected and summarized in this and other reports. Summaries of EHS performance by site begin on page 34 of this report.

Operational data for FASL LLC sites in Aizu-Wakamatsu and Kuala Lumpur are not included in the environmental information contained in this report. AMD assumed operational control of these facilities in July 2003 and has been integrating AMD environmental programs with existing programs at these sites. Environmental data for these facilities will be included in the 2004 report.

AMD developed a normalization factor for the company's wafer manufacturing operations to measure relative changes in key environmental data as a function of manufacturing. The normalization factor is a Manufacturing Index (MI) derived from the number of wafers processed, the complexity of the fabrication process, and the wafer size. Normalized environmental data is used to compare year-to-year resource efficiency for AMD's worldwide and single-site operations. Wafer manufacturing data is used for normalizing worldwide data, because these processes are resource-intensive and dominate the environmental key performance indicator measurements. Direct site-to-site comparisons are less meaningful due to differing types of products, product complexity, facility design, and other operations performed at each site. Water use, electricity use, and waste generation are normalized because these data are most affected by increases or decreases in production.
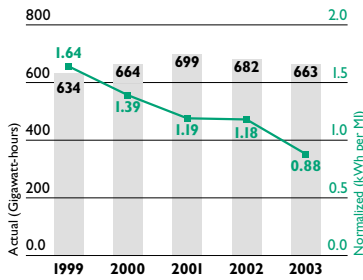
Figure 7
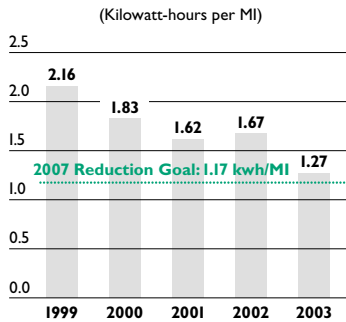**AMD Worldwide**
Electricity Use

Figure 8
AMD Worldwide
Normalized Energy Use

Energy Conservation

Continuing on a downward trend from a peak in 2001, AMD's total worldwide electricity use declined two percent from 2002 to 2003, despite a 30-percent increase in production at the company's wafer fabrication facilities in Austin and Dresden. **Normalized electricity usage decreased by 25 percent.** Figure 7 presents the absolute and normalized electricity consumption for AMD's worldwide operations from 1999 to 2003. The conversion of Fab 25 in Austin from microprocessors to Flash memory production during 2002 and early 2003, resulted in a 36-percent increase in production at the Austin site alone between 2002 and 2003. Energy conservation projects contributed to the reduction. Future electricity use is expected to increase as additional production increases are planned for Fab 25 and data from new FASL LLC facilities in Aizu-Wakamatsu and Kuala Lumpur are incorporated into this key performance indicator.

AMD is committed to reducing energy consumption in its manufacturing operations. After achieving an earlier goal well ahead of the target date, the company has established a new energy use goal in support of AMD's overall global climate protection strategy. **AMD is committed to a 30-percent reduction in normalized energy use by 2007 measured against a 2002 baseline.** Future operational changes, such as including FASL LLC facilities in Aizu-Wakamatsu and Kuala Lumpur as well as a new 300 millimeter microprocessor manufacturing facility, have been incorporated into the 30-percent reduction. Figure 8 shows progress toward meeting this goal in 2003.

The company continues to search for efficient, reliable sources of electricity. The AMD and FASL Austin site purchases more than 24 gigawatt-hours of electricity from renewable sources annually through Austin Energy's GreenChoice™ program. In October 2001, AMD became the first member of the U.S. semiconductor industry to join the U.S. EPA's Green Power Partnership program. Another example of the company's commitment to obtaining efficient energy is the Dresden Energy Center, a highly efficient cogeneration facility. The Energy Center is designed to provide 100 percent of the electricity, heating, and cooling for AMD Fab 30. A second cogeneration facility is planned to support AMD Fab 36.

AMD's Austin facility purchases 24 gigawatt-hours of renewable energy per year from Austin Energy. The energy is generated from wind, solar, and biogas sources.
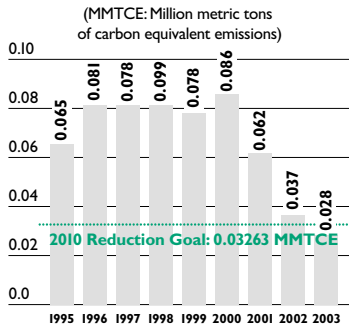
Figure 9
AMD Worldwide
PFC Emissions

(MMTCE: Million metric tons of carbon equivalent emissions)

Year	Value
1995	0.065
1996	0.081
1997	0.078
1998	0.099
1999	0.078
2000	0.086
2001	0.062
2002	0.037
2003	0.028

2010 Reduction Goal: 0.03263 MMTCE

Senior EHS Manager Reed Content receiving the Climate Leaders certification for AMD.

Global Climate Change

AMD shares the view of most scientists that climate change is an extremely important global issue. Utilizing the company's technical and engineering expertise, AMD will address the issue by creating products that are energy-efficient and by reducing emissions associated with its own operations. Greenhouse gas emissions associated with semiconductor manufacturing are relatively small when compared to other industries. Nevertheless, the company is taking proactive measures as outlined in **AMD's Global Climate Protection Plan** (refer to http://www.amd.com/ehs). AMD's commitment, strategies, and annual progress toward addressing global climate change are outlined in this plan. The plan is reviewed annually at the executive level of the company. In 2002, AMD began using the emissions inventory reporting guidelines published by the World Business Council for Sustainable Development and the World Resources Institute in *The Greenhouse Gas Protocol, A Corporate Accounting and Reporting Standard.*

AMD is also a member of the **U.S. EPA Climate Leaders** program. The company accounts for direct and indirect sources when reporting greenhouse gas emissions. Perfluorocompounds (PFCs) and energy-related carbon dioxide (CO_2) emissions are the major global warming gas emissions associated with AMD's operations.

AMD is an active member of the Semiconductor Industry Association's PFC Reduction/Climate Partnership with the U.S. EPA, and has signed the European Semiconductor Industry Association's Memorandum of Agreement for PFC Reductions. AMD's U.S. facilities and AMD Saxony support the World Semiconductor Council's goal of a 10 percent or greater reduction in PFC emissions by 2010 relative to a 1995 baseline. In support of these goals, AMD is aggressively pursuing a strategy to achieve its own **goal of a 50-percent absolute reduction in PFC emissions** by 2010 relative to a 1995 baseline. Figure 9 illustrates performance to the goal with a summary of AMD's worldwide PFC emissions from 1995 to 2003. AMD has surpassed the goal by achieving a 55-percent reduction in PFC emissions through implementation of

alternative chemistries and processes, combined with closures of older facilities with less efficient processes. Despite the fact that AMD achieved a greater than 50-percent reduction in PFCs at the end of 2003, the addition of new FASL LLC facilities, and a 300 millimeter manufacturing facility into AMD's future reporting will make the 2010 goal a challenging one.

Employee awareness and education are key components of AMD's overall global climate protection strategy. Educational programs suggest changes employees can make in their daily lives to decrease adverse impacts on the global climate, and promote alternative transportation such as ride sharing, cycling, and mass transit.
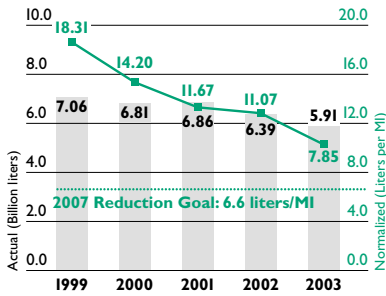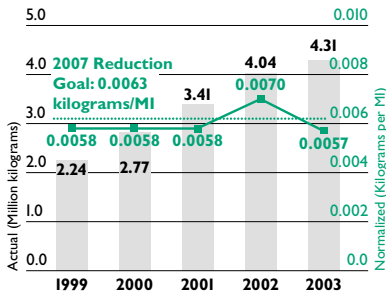
Figure 10 — AMD Worldwide Water Use

Actual (Billion liters): 7.06 (1999), 6.81 (2000), 6.86 (2001), 6.39 (2002), 5.91 (2003)

Normalized (Liters per MI): 18.31, 14.20, 11.67, 11.07, 7.85

2007 Reduction Goal: 6.6 liters/MI

**Figure 10
AMD Worldwide
Water Use**

Figure 11 — AMD Worldwide Hazardous Waste Generation

Actual (Million kilograms): 2.24 (1999), 2.77 (2000), 3.41 (2001), 4.04 (2002), 4.31 (2003)

Normalized (Kilograms per MI): 0.0058, 0.0058, 0.0058, 0.0070, 0.0057

2007 Reduction Goal: 0.0063 kilograms/MI

**Figure 11
AMD Worldwide
Hazardous Waste Generation**

Figure 12 — AMD Worldwide Hazardous Waste Disposition

	1999	2000	2001	2002	2003
Recycled or processed for energy recovery	13	19	14	12	16
Landfill	2	2	11	24	11
Treated off-site	85	79	74	64	73

Recycled or processed for energy recovery
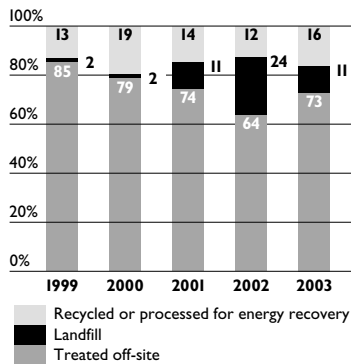Landfill
Treated off-site

**Figure 12
AMD Worldwide
Hazardous Waste Disposition**

Water Conservation

AMD's worldwide water use continued a downward trend in 2003. Since 1999, the company's annual worldwide water use has declined 15 percent or more than 1 billion liters (264 million gallons). During this same five-year period, water conservation efforts at Fab 25 in Austin and the closures of the Lone Star Fab in Austin and AM-3 in Penang offset increases in water use associated with the startup of Fab 30 and new facilities in Suzhou and Singapore.

After achieving a previously established water reduction goal—15-percent reduction in normalized water use at wafer manufacturing facilities by 2005 relative to the year 2000— ahead of the target date, the company established a new goal. **AMD's new goal is to achieve a 40-percent reduction in normalized water use by 2007**, measured against a baseline year of 2002. Figure 10 shows absolute and normalized water use for the company as well as the 2007 goal target. Absolute water use is expected to increase in 2004 as production increases are expected at all facilities and the new FASL LLC facilities in Aizu-Wakamatsu and Kuala Lumpur are included.

Waste Management

AMD's hazardous waste generation continued an upward trend with a seven-percent increase from 2002 to 2003. The increase in 2003 is attributable to liquid waste generation associated with Controlled Collapse Chip Connection (C4) process at AMD's Dresden facility. The site has identified and started implementing a series of aggressive projects to reduce hazardous waste generation. Details regarding these efforts are provided in the site report for AMD Saxony found on page 38.

AMD's goal is to reduce normalized hazardous waste generation by 10 percent by 2007 with 2002 as the baseline year. Despite the appearance in Figure 11 that the company has already achieved the goal, the 2007 reduction target takes into consideration the addition of new FASL LLC facilities located in Aizu-Wakamatsu and Kuala Lumpur as well as the new 300 millimeter wafer manufacturing facility, AMD Fab 36, located in Dresden, Germany. Absolute worldwide hazardous waste generation is expected to increase with the addition of these new facilities.

AMD has pollution-prevention programs at each site that adhere to the philosophy that wastes should be prevented or reduced at the source. If prevention is not feasible, wastes should be recycled or reused whenever possible. Wastes that cannot be prevented or recycled should be treated in an environmentally safe manner with disposal being a last resort. Disposal facilities are evaluated prior to their use and periodically thereafter to ensure compliance with applicable laws and to make sure that the operators have the technology and expertise to properly manage AMD's wastes.

Figure 12 shows the disposition of hazardous waste shipped from all AMD sites for 1999 to 2003. The percentage of waste landfilled declined in 2003 because sludge wastes from AMD Saxony previously classified as hazardous waste were reclassified as non-hazardous waste due to a change in regulations. The amount of hazardous waste sent to landfills is expected to decline as waste-reduction efforts continue and new disposal alternatives are investigated.
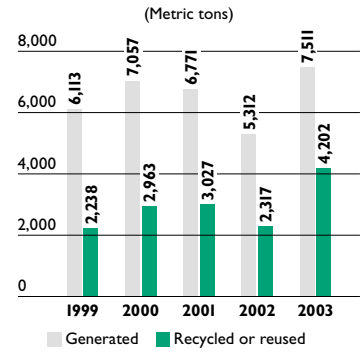
Toxic Release Inventory data for AMD's U.S. sites is published in a separate report found on the EHS page of AMD's website (http://www.amd.com/ehs). This report is updated annually to reflect AMD's reporting to the U.S. EPA.

Non-hazardous waste generation increased 41 percent in 2003 compared to 2002. Waste resulting from the conversion of Fab 25 to Flash manufacturing, reclassification of sludge from the Dresden facility, and an overall increase in manufacturing at all facilities contributed to the increase. Figure 13 illustrates the total amount of solid waste generated and recycled or re-used. Approximately 56 percent of the solid waste generated by the company in 2003 was recycled or reused. The U.S. EPA recognized AMD's waste-minimization efforts for the third year in a row with an Honorable Mention from the WasteWise Program.
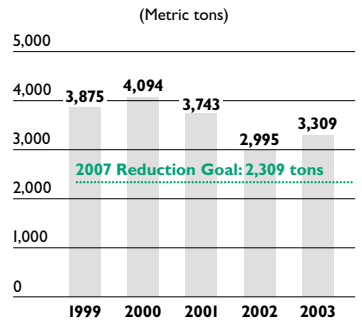
AMD has a goal to reduce non-hazardous waste sent to the landfill by 1,000 metric tons by 2007 compared to a baseline year of 2002. Figure 14 shows non-hazardous waste sent to the landfill from 1999 to 2003 as well as the 2007 target. Similar to other AMD goals, the target incorporates non-hazardous waste sent to the landfill from newly added FASL LLC facilities in Aizu-Wakamatsu and Kuala Lumpur and the new 300 millimeter wafer fabrication facility in Dresden.

Compliance

Government EHS agencies inspected AMD facilities 40 times during 2003. There were no findings from the inspections. The Sunnyvale site received a Notice of Violation from the City of Sunnyvale Sewer District after self-reporting wastewater discharge pH concentrations outside of permitted limits on two occasions in 2003. The issue has been resolved to the satisfaction of the City.

(Metric tons)

Year	Generated	Recycled or reused
1999	6,113	2,238
2000	7,057	2,963
2001	6,771	3,027
2002	5,312	2,317
2003	7,511	4,202

Figure 13
AMD Worldwide Solid Waste Generated and Recycled or Reused

(Metric tons)

Year	Value
1999	3,875
2000	4,094
2001	3,743
2002	2,995
2003	3,309

2007 Reduction Goal: 2,309 tons

Figure 14
**AMD Worldwide Nonhazardous Waste Sent to Landfill**

Site Reports

The sustainability of a global corporation depends on the combined efforts undertaken at each company site. The following reports review the social and environmental performance of each site.

Each manufacturing and research and development site, including the AMD sites that were transferred to FASL LLC, have EHS professionals who implement site-specific EHS programs. EHS programs at the newly added Aizu-Wakamatsu and Kuala Lumpur sites are expected to meet AMD's standards of EHS excellence. Each site also has community affairs programs, providing financial and volunteer support in their local communities. AMD is in the process of integrating the company's Worldwide EHS Standards into existing EHS programs at the Aizu-Wakamatsu and Kuala Lumpur sites.

For details about past EHS accomplishments and projects and Community Affairs efforts, please see previous Sustainability Progress Reports at: http://www.amd.com/ehs
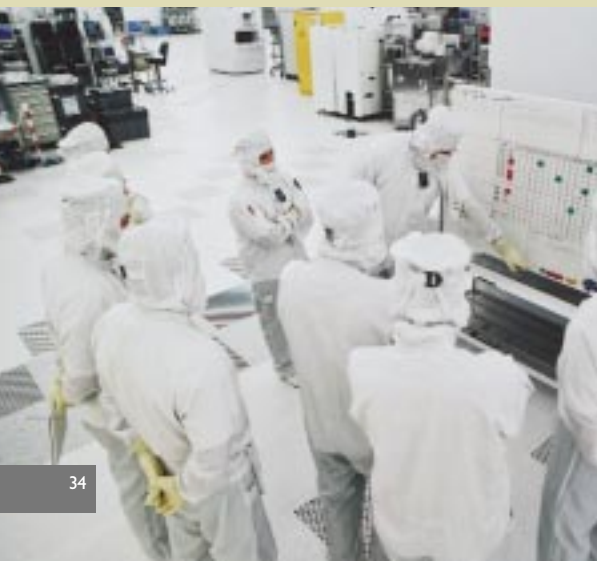
Wafer Manufacturing

Wafer manufacturing operations include AMD Fab 30 located in Dresden, Germany, which manufactures microprocessor wafers, and FASL Austin's Fab 25 and Aizu-Wakamatsu's JV1, JV2, and JV3, which manufacture wafers for Spansion Flash memory products.

AMD developed a normalization factor for the company's wafer manufacturing operations to measure relative changes in key environmental data as a function of manufacturing. The normalization factor is a manufacturing index derived from the number of wafers processed, the complexity of the fabrication process, and the wafer size. Normalized environmental data is used to compare year-to-year resource efficiency for a single site. Site-to-site comparisons are less meaningful due to differing types of products, product complexity, facility design, and other operations performed at each site. Water, electricity, and waste generation are normalized because these data are most affected by changes in production.

Austin

Site: AMD and FASL Austin

Year Established: 1979

Operations: Microprocessor design and design and manufacture of Spansion Flash memory products based on MirrorBit technology and other Flash memory products at FASL Fab 25

Number of Employees: 3,200

In July, a number of AMD facilities at the Austin site were transferred into FASL LLC including Fab 25, which completed its first full year of production of Flash memory wafers in 2003 after transitioning from the manufacture of microprocessors. In addition to Fab 25, AMD and FASL LLC have engineering design centers for microprocessors, Spansion Flash memory, and Personal Connectivity Solutions Group products.

Social Performance

Helping Employees Manage Stress

The recent economic downturn has impacted workers everywhere raising concerns about job security and new job responsibilities as a result of a smaller workforce. To help employees through these difficult times, the Austin site has focused attention on **programs to encourage healthy habits and manage and reduce stress**. The site began a Walk the Halls exercise program and encouraged employees to attend free yoga classes. At the site's Wellness Fair, 300 employees had blood pressure evaluations and fitness assessments and tried yoga, Pilates, and dance classes.

Education and awareness about ergonomics and safer work practices, as well as the closure of the Lone Star Fab in 2002, helped the site achieve a **28-percent reduction in the injury and illness rate in 2003** compared to 2002 as shown in Figure 15.
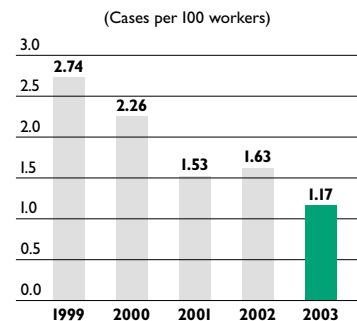
(Cases per 100 workers)

Year	Rate
1999	2.74
2000	2.26
2001	1.53
2002	1.63
2003	1.17

Figure 15
AMD Austin
Occupational Injury and Illness Rates

In October, AMD supported the Lance Armstrong Foundation Ride for the Roses Weekend, which drew 6,000 cyclists and runners from around the world and raised $4.2 million for cancer survivorship efforts.

Alex Brown, Vice President, Global Supply Management and Logistics, accepts the Goodwill Industries' Donor of the Year Award on behalf of AMD. The company was selected for donating computers and parts to the organization's ComputerWorks store, where individuals are trained to repair computers for sale back to the community at reduced prices. This is the second time that AMD has been honored with this award. Since 1997, AMD has contributed more than $500,000 in computers and equipment to the program.

Supporting Families

For the third year in a row, AMD was recognized as a **family-friendly Austin business** by the Fund for Child Care Excellence based on benefits provided to employees such as childcare referral resources, flexible working hours, job sharing, and continuing education programs. In addition, the Texas Department of Health designated AMD Austin as a **Mother-Friendly Worksite**.

AMD's high ethical standards and practices in the workplace were recognized with the **Ethics in Business Award,** given by a partnership between St. Edward's University and the Interfaith Samaritan Center located in Austin, Texas.

Contributing to the Community

In 2003, AMD and FASL Austin contributed more than $500,000 in grants, nearly $1 million in in-kind contributions, and $260,000 through the Matching Gifts and GIVE programs, as well as more than 2,000 hours of volunteer service to the community. The company and its employees contributed to the community in a number of ways:

- Volunteering at food banks, the Salvation Army, and supporting Meals on Wheels
- Supporting community health and dental clinics
- Hosting conferences on emergency preparedness and volunteerism
- Providing area hazard map inserts in the local newspaper to support Disaster Ready Austin
- Supporting Keep Austin Beautiful's Clean Sweep and Camp Environmania programs
- Tutoring and mentoring students at Smith Elementary School
- Supporting **Girlstart**, a program encouraging girls in math, science, and technology
- Supporting numerous educational programs such as an Excellence in Writing Competition, Austin Fun Science Day, and Reading is Fundamental, as well as **training programs for teachers**

"Quietly, and without much fanfare, AMD has been one of the Library Foundation's largest corporate supporters."

— Amalia Rodriguez-Mendoza
President, Austin Public Library
Foundation's Board of Directors

Environmental Performance

As one of AMD's wafer fabrication sites, the Austin site has a significant portion of the responsibility for meeting the corporate resource conservation goals. These projects require education, coordination, and planning across departments.

The Austin site's absolute and normalized energy use decreased eight and 33 percent respectively in 2003, as illustrated in Figure 16. The site recently implemented a number of energy efficiency measures, including lowering exhaust rates of certain equipment, optimizing the temperature of electrical rooms, and improving roof insulation. Together these projects are expected to save nearly 800 megawatt-hours of electricity per year. Recognizing that the source of the electricity is also an important factor in resource conservation, the site continues to be **one of the largest subscribers to the Austin Energy's Green Choice Program, purchasing 24 gigawatt-hours of renewable energy each year**.
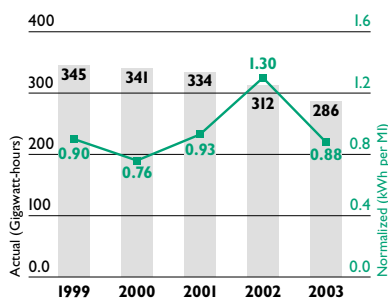
As shown in Figure 17, **the Austin site's water use decreased 12 percent in 2003 relative to 2002**, in large part due to a significant project to reclaim and reuse manufacturing rinse water. This project conserved 238 million liters (63 million gallons) of water in 2003, and is expected to conserve nearly 995 million liters (263 million gallons) of water annually when fully operational in 2005. AMD was recognized by the City of Austin with their Excellence in Water Conservation Award for this project. **Normalized water use decreased by more than 35 percent due to water conservation efforts and increased production levels.** The City of Austin also recognized the Austin site with their Excellence in Pretreatment Award for the fifth year in a row.

As shown in Figure 18, the Austin site's absolute hazardous waste generation decreased significantly in 2003, down 40 percent from 2002, primarily due to the closure of the Lone Star Fab in 2002. Normalized hazardous waste generation decreased 56 percent as a result of increased production in Fab 25.

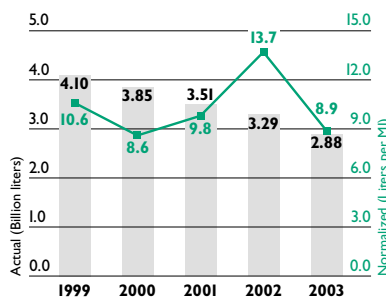For additional site performance information, please refer to pages 52–53.
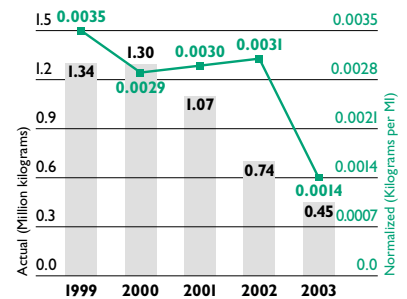

Figure 16
AMD Austin
Electricity Use

Figure 17
AMD Austin
Water Use

Figure 18
AMD Austin
Hazardous Waste Generation

AMD volunteers participating in the
Elbe River Cleanup in Dresden.

Dresden

Site: AMD Saxony

Year Established: 1999

Operations: Microprocessor design and
wafer manufacturing for the flagship
AMD Opteron, AMD Athlon 64, and
AMD Athlon XP microprocessors at
AMD Fab 30 and the Dresden Design Center

Number of Employees: 2,000

In November 2003, AMD celebrated the
**groundbreaking for AMD Fab 36, a new
state-of-the-art 300mm manufacturing facility
in Dresden.** AMD Fab 36 is expected to
reach volume production of future generations
of 64-bit microprocessors in 2006 and to
employ approximately 1,000 workers, most of
them highly skilled engineers and technicians.
A second cogeneration power plant will be
constructed to support the energy needs of
AMD Fab 36. AMD Saxony executives hosted
a neighborhood meeting to share plans with
approximately 90 residential neighbors about
the construction of AMD Fab 36 and to discuss
potential impacts on the neighborhood.

The Dresden site also hosts the Dresden
Design Center, a world-class integrated circuit
development center; the Dresden Energy
Center, a cogeneration power plant that
generates nearly all of the electricity for
AMD Fab 30; and the Advanced Technology
Production Center. In 2003, the Advanced
Mask Technology Center, a joint venture
with Infineon Technologies and DuPont
Photomasks, Inc. that develops advanced
photomasks for future semiconductor
products, was opened in Dresden.

Social Performance

Focusing on Injury and Illness Prevention

A focus on injury prevention, analysis
of incidents, and corrective actions
contributed to a **28-percent decrease in
Dresden's injury and illness rate in 2003**
compared to 2002 as shown in Figure 19.
The site's EHS department participates in
manufacturing meetings, and injury and
illness rates and cases are reviewed in
quarterly Safety Council and contractor
meetings. Weekly safety walkthroughs also
help identify areas for improvement and
ensure that safety procedures are followed.

Supporting Youth Programs and Education

AMD Dresden is a strong supporter of
youth programs and education, providing
nearly $60,000 in grants, $36,000 in in-kind
contributions, and 300 hours of volunteer
services in 2003. The site's funding, technical
support, and volunteer efforts included:

• Providing financial and technical support
  to five AMD partner schools
• Sponsoring multiple high-tech
  competitions for youths, including
  the International Youth Technology
  Workshop "ESE 2004"
• Sponsoring UNICEF World Children's Day
• Providing technical support for Dresden
  youth clubs
• Organizing a holiday party and gifts for
  disadvantaged children
• Working with students from Gymnasium
  Dresden-Klotzsche on an ecological
  analysis of flora and fauna of a regional
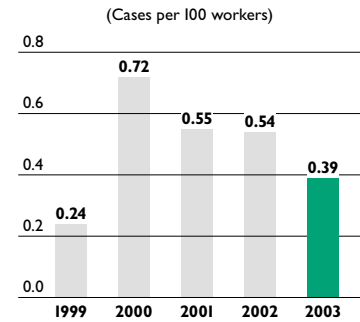 storm-water retention pond

(Cases per 100 workers)

**Figure 19
AMD Dresden
Occupational Injury and Illness Rates**

Environmental Performance

Although AMD Fab 30, AMD's newest state-of-the-art wafer fab, was designed with resource efficiency in mind, the site continues to seek ways to conserve. As shown in Figure 20, normalized electricity usage decreased by 13 percent in 2003 even though absolute electricity usage increased by 10 percent due to the installation of new manufacturing equipment in AMD Fab 30 during 2002. This increase was partially offset by energy reduction projects implemented in 2003 such as pre-heating air units with warm water from the Dresden Energy Center instead of electricity. Annual energy savings from this project are expected to be 2,000–5,000 megawatt-hours.

At the end of 2002, site engineers completed projects to optimize ultrapure water use and ceased using cooling water in unnecessary applications, contributing to the site's 23-percent decrease in normalized water usage in 2003, which is shown in Figure 21.

Figure 22 shows that Dresden's hazardous waste generation increased by nearly 20 percent in 2003 due to a significant ramp-up of the C4 technology in the manufacturing process. Projects to decrease hazardous waste streams were implemented in 2003 and include reducing a chromium-phosphoric acid waste stream by approximately 10 percent through process optimization. Plans for 2004 include replacing a wet-etch process with a dry-etch process, which is expected to decrease the site's annual hazardous waste generation by 650,000 kilograms (1.4 million pounds). Also in 2004, the site will begin treating chromium-phosphoric acid, reducing hazardous waste by an additional 650,000 kilograms (1.4 million pounds) per year.

The reductions from these two projects are equal to 35 percent of the hazardous waste generated at the site in 2003.

The site's solid waste generation increased by 64 percent due to a change in regulations that resulted in the reclassification of sludge wastes from hazardous to non-hazardous. Total waste generated by the site (hazardous and non-hazardous) increased by 27 percent between 2002 and 2003.

A more detailed report of the Dresden site's EHS programs and projects is available at: http://www.amd-saxony.de

For additional site performance information, please refer to pages 52–53.
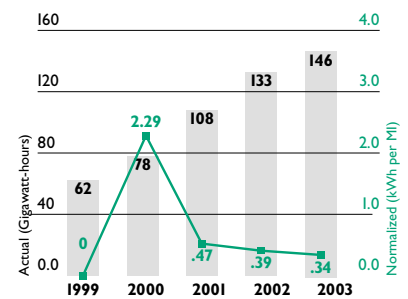
Figure 20
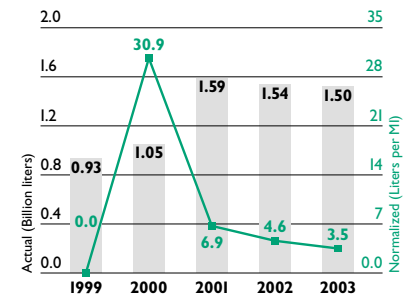**AMD Dresden**
Electricity Use

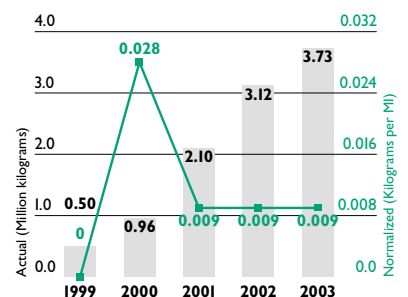**Figure 21**
AMD Dresden
Water Use

Figure 22
AMD Dresden
Hazardous Waste Generation

Assembly and Test

Assembly, test, mark, pack, and shipping services are carried out at five sites in the Asia-Pacific region—Bangkok, Thailand; Penang, Malaysia; Kuala Lumpur, Malaysia; Singapore; and Suzhou, China. Subcontract manufacturers supplement internal high-volume capacity by providing additional test and assembly services; however, AMD- and FASL LLC-owned facilities provide a majority of the services required.

Occupational injury and illness rates for AMD's Asia-Pacific sites overall are very low. Wide variations in case rates from year to year are common for sites with a very low number of cases.

Final assembly and test facilities are unique with respect to resource use and waste generation. Water and chemical use is relatively low and the use of these resources does not correlate well with manufacturing output. Conversely, energy use is dependent upon the testing sequence and complexity of the product. In general, the more complex a product, the more complex and energy-intensive the testing sequence. Variability in the types of products processed at each site makes definition of a meaningful normalization factor difficult. Consequently, resource use and waste generation data for these sites have not been normalized.

Thailand

Site: FASL Thailand

Year Established: 1984

Operations: High-volume plastic and compact chip assembly, test, mark, and pack for Spansion Flash memory products

Number of Employees: 1,300

As part of the creation of FASL LLC, AMD's Bangkok site was transferred to the new entity and is now FASL Thailand.

Social Performance

Leading the Way in Health and Safety
2003 was a banner year for FASL Thailand with respect to health and safety. The site's commitment to and success in providing a safe and healthy workplace for its employees was recognized in 2003 with multiple awards.

The site received the:
- **Certificate of Zero Lost Day Accidents** from the Ministry of Labor, for no lost day accidents during more than 12 million working hours (from Jan. 1, 2000 to Dec. 31, 2002)
- Healthy Workplace Award from the Ministry of Public Health
- Clean Food Good Taste Certificate from the Ministry of Public Health

As shown in Figure 23, the site's injury and illness rate was 0.26 cases per 100 workers, up from 0 cases in 2002. For sites with such low rates, a small change in the absolute number of cases can have a large impact on the case rate.

Appreciating Families
To show appreciation for employees and their families, FASL Thailand held the site's first FASL Family Day. More than 2,000 attendees participated in magic shows, games, and singing competitions. Massage therapists helped employees to relax and rejuvenate, and employees' children toured the facility.

(Cases per 100 workers)

Year	Rate
1999	0.10
2000	0.05
2001	0.15
2002	0.00
2003	0.26

Figure 23
FASL Bangkok
Occupational Injury and Illness Rates

AMD has financially supported the Ruamnumjaichalermprakiat School in Lumpoon province for many years.

Supporting the Community

FASL Thailand provided $53,000 in grants, $1.6 million in in-kind donations, and more than 500 hours of volunteer service to a variety of local organizations in 2003. Among the community activities in 2003 were:

• Donating lunch to the Rachawadee Home for Mentally Handicapped Girls, Pakkred Home for Boys, and the Pakkred Home for Babies
• Serving lunch quarterly to residents at the Skills Development Center for the Blind
• Hosting the **7th Annual Community Relations Day** for more than 200 people from local community groups, schools, and government agencies as well as 40 FASL Thailand employees. FASL Thailand announced 62 scholarships for local children and donated money to local schools, the police department, the military department, and other government organizations. Attendees toured the facility and learned about environmental management
• Providing Quality and EHS training to other companies and organizations
• Donating more than 440 units of blood through quarterly blood drives

Environmental Performance

In 2003, electricity use increased due to a 25-percent increase in production compared to 2002 as shown in Figure 24. Energy reduction efforts implemented in 2003 include installation of a motion activated lighting system in a storage area. In 2004, the site will upgrade its air filtration system thereby saving another 300,000 kilowatt-hours.

Water conservation projects partially offset the increase in water use due to higher production levels as shown in Figure 25. The site increased its recycling of deionized water for cooling purposes and expects to save an additional 30 million liters (8 million gallons) per year. The site also began reusing wastewater from ultrapure water production to de-ice a nitrogen evaporator and began using treated wastewater for landscape irrigation. These projects are expected to save approximately 9 million liters (2.4 million gallons) and 31 million liters (8.2 million gallons) of water per year, respectively. In 2004, the site will reuse additional wastewater in air exhaust systems, saving an additional 7 million liters (1.8 million gallons) per year.

Figure 26 shows hazardous waste generation decreasing by nearly 24 percent in 2003 compared to 2002 due to the cessation of manufacturing products at the site that require the use of a solder plating process. A change in the cleaning process during production also contributed to the decrease in hazardous waste generation.

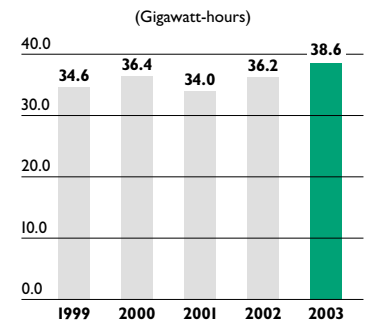For additional site performance information, refer to pages 52–53.

(Gigawatt-hours)

**Figure 24
FASL Bangkok
Electricity Use**

(Million liters)

**Figure 25
FASL Bangkok
Water Use**

(Thousand kilograms)
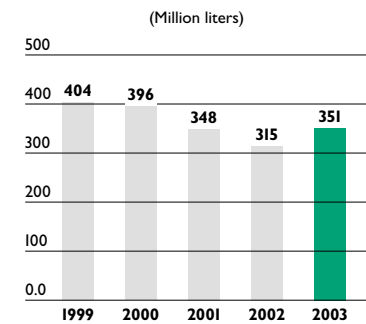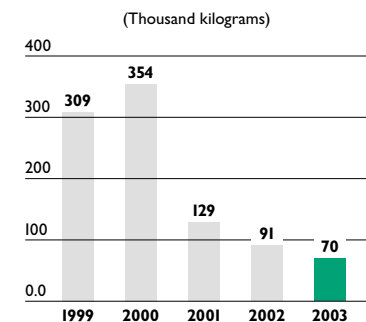
**Figure 26
FASL Bangkok
Hazardous Waste Generation**

Penang

Site: AMD and FASL Penang

Year Established: 1972

Operations: Assembly and testing for AMD microprocessors and Spansion Flash memory products

Number of Employees: 1,200

With the creation of FASL LLC, a portion of the Penang site was transferred to the new entity. The site now manufactures both AMD and Spansion products. The Penang site is also working closely with FASL Kuala Lumpur to assess and share information about AMD's EHS program requirements.

Social Performance

Excelling in Emergency Response Preparedness

Each of the 114 members of AMD and FASL Penang's Emergency Response Team (ERT) completes 50 hours of training each year on how to respond to fires, chemical spills, and medical emergencies. This year, the team beat 25 other companies to win the **Overall ERT Champion Challenge Trophy** in the Penang Free Industrial Zone ERT Competition.

The injury and illness rate increased from 0.13 cases per 100 workers in 2002 to 0.27 in 2003 as shown in Figure 27. A single case has a large impact on the percentage change in the site's case rate. The absolute number of reportable cases increased from two cases to three cases between 2002 and 2003.

During the site's **annual EHS week,** employees learned about organ-donation, nutrition, ergonomics, and emergency response procedures. Employees had eye screenings and body fat tests, and participated in a blood drive. As part of the event, the site presented a grant to the University Sains Malaysia to fund research of cleaner wastewater treatment technologies.

Tapping Students' Hidden Potential

AMD employees served as corporate advisors for the Young Enterprise program which provides Malaysian youths an opportunity for hands-on experience managing a business, and AMD chaired the Organizing Committee of the Achievers' Showcase. AMD and FASL Penang's Managing Director Mohd Sofi said, **"We believe that it is our responsibility to groom the next generation to unleash their full potential. Much like an iceberg, many youth express only a small portion of themselves and their capabilities to the world. With American Malaysian Chamber of Commerce, corporate, and education experts in various fields, this program will be a catalyst to tap their hidden potential."**

In 2003, the Penang site donated $19,000 to community organizations and employees volunteered approximately 1,100 hours toward community service activities. Activities included:

- Inviting top-performing secondary-school students to visit AMD and learn about technology, the semiconductor industry, and potential job opportunities
- Donating necessities such as food, lights, and furniture to St. Joseph Orphanage after a devastating fire
- Collecting canned food from employees during the "CAN do Week" for donation to three organizations that cater to orphans, Wisma Yatim Perempuan, the Children's Protection Society, and Rumah Seri Cahaya

(Cases per 100 workers)

Year	Value
1999	0.32
2000	0.18
2001	0.16
2002	0.13
2003	0.27
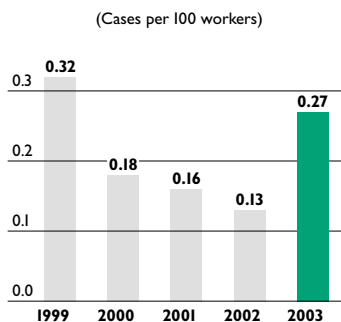
Figure 27
AMD Penang
Occupational Injury and Illness Rates

The Penang site was honored with the 2002/2003 Prime Minister's Hibiscus Award for Exceptional Achievement in Environmental Performance, the premier private-sector environmental award in Malaysia. The assessors recognized AMD for its commitment to environmental issues, praising Workable Ideas Suggested by Employees (WISE), a program to reward employees who submit suggestions for improvements. Managing Director Mohd Sofi commented, "We have moved in the right direction and these efforts will support us to reach higher achievements."

- Donating used greeting cards to the Joblink Center, which teaches the disabled to make gift boxes and bookmarks for sale to raise money
- Organizing a Charity Food Fair, preparing and selling pastries and local delicacies
- Sponsoring food for "Thaipusam" annual celebration
- Raising money for Mount Miriam Hospital for cancer patients and its hospice care center
- Supporting the **AMD Rotary Dialysis Center** which offers subsidized dialysis services in Penang

Environmental Performance

AMD's commitment includes continually looking for conservation opportunities. By consolidating assembly lines and optimizing lighting in offices, the site achieved energy savings of nearly 7 million kilowatt-hours per year, an amount equal to 17 percent of the total electricity consumed by the site as presented in Figure 28.

Water use decreased by 30 percent in 2003 to 321 million liters (85 million gallons) compared to 2002 as illustrated in Figure 29. Closure of the AM-3 facility in 2002 combined with decreased production levels and other conservation projects in 2003 contributed to the reduction. Conservation projects completed in 2003 included a vacuum pump water recycling project that is estimated to **reduce water use by more than 12 million liters** (3.2 million gallons) per year. Plans for 2004 include cooling water recycling and reusing reverse osmosis water to conserve 21 million liters (5.5 million gallons) per year.

Figure 30 shows that the site's **hazardous waste generation decreased by 70 percent in 2003** compared to 2002 as a result of the closure of one of the manufacturing facilities and its associated wastewater treatment plant near the end of 2002.

The Penang site was recognized by the Penang Environment Working Group, which is jointly organized by Penang State Municipal Council and the Malaysia Department of Environment, for its participation in the Penang Recycling Program, a long-term, sustainable community recycling program. The site's commitment to recycling as well as the consolidation of assembly lines, contributed to the **27-percent decrease in solid waste** generated by the site in 2003 compared to 2002.

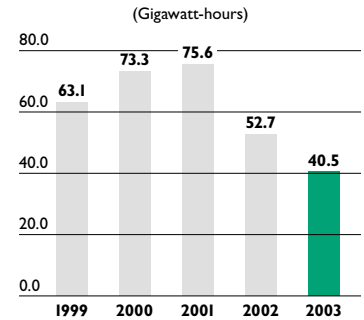For additional site performance information, refer to pages 52–53.

**Figure 28
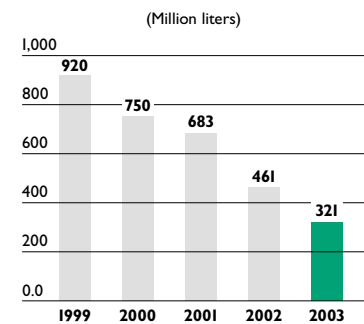AMD Penang
Electricity Use**
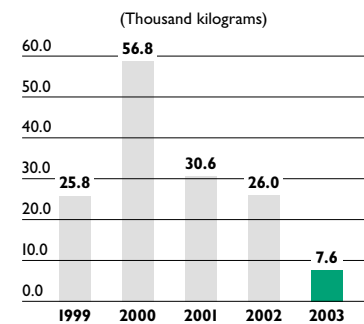

**Figure 29
AMD Penang
Water Use**

**Figure 30
AMD Penang
Hazardous Waste Generation**

AMD Singapore volunteers
tutoring math, English, and
computer technology at the
East Coast Primary School.

Singapore

Site: AMD Singapore

Year Established: 1984

Operations: Test, mark, and pack for AMD microprocessors and network products

Number of Employees: 1,200

Social Performance

Protecting Employees

Protecting our employees is of utmost importance, and AMD Singapore's strong health and safety programs demonstrate the site's commitment. AMD Singapore was again awarded the **Silver Award for Safety by the Ministry of Manpower** for the site's record of accident-free man-hours, excellent safety programs, and successful safety improvement projects. In addition, the site's health programs and performance were recognized with the **Health Award from the Singapore Health Promotion Board.**

Educational programs, such as the annual EHS awareness week where employees learn about first aid, fire safety, and healthy eating habits; and EHS training are important vehicles for communicating EHS information. The Continual Improvement Team and regular internal-audits are also key elements of the site's programs.

Despite exemplary health and safety programs, Figure 31 shows that AMD Singapore's injury and illness rate increased from 0.08 cases per 100 workers in 2002 to 0.69 cases in 2003, due to the increased activity related to moving the site's operations to the new building. All injuries and illnesses are investigated and actions to prevent their recurrence are tracked with an electronic Corrective Action Request system which was implemented in May.

In 2003, AMD Singapore gave $33,000 in grants and $1,400 in in-kind donations and the site's volunteers contributed 2,000 hours of service in the community. In addition to their loyal support of the Villa Francis Home, AMD Singapore and site employees participated in other community activities including:

• Raising $5,800 for the Courage Fund, Singapore's national effort to help needy families of SARS patients

• Organizing and sponsoring a charity golf tournament that raised $42,400 for the Villa Francis Home and Fairfield Methodist Secondary School

• Forming a **partnership with a new university, Republic Polytechnic.** AMD will help prepare students by exposing them to real-world issues faced by the industry

• Sponsoring Technoquest, an IT event organized by Nanyang Technological University

• Receiving the 15th Anniversary Award from the Singapore Children's Society for past support of the organization's various fundraising activities

• Supporting Bizlink, a program that works with local businesses to offer employment for people with disabilities

• Partnering with the East Coast Primary School for Racial Harmony Day, a day that celebrates diversity and promotes understanding and religious harmony

(Cases per 100 workers)

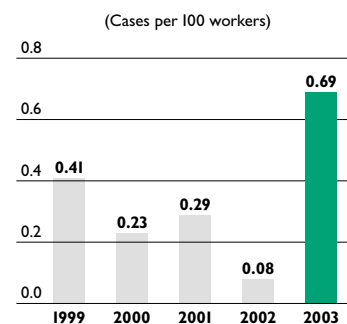|				
0.8				
				0.69
0.6				
0.41		0.29		
0.4	0.23			
0.2			0.08	
0.0				
1999	2000	2001	2002	2003

Figure 31
AMD Singapore
Occupational Injury and Illness Rates

Environmental Performance

AMD Singapore's move from leased space into an AMD-owned building impacted the environmental performance indicators for the site because AMD is now responsible for all building systems, such as air handlers, boilers, and chillers, and can more accurately measure resource use.

The new building was designed with several energy saving features, including a variable-speed-drive motor control system, high-efficiency lighting, and high-efficiency motors for pumps and air handling units. As presented in Figure 32, electricity use increased by 10 percent to 55 million kilowatt-hours in 2003, also due to the move and corresponding responsibility for operating systems for the entire building. The site will **conserve 2.1 million kilowatt-hours of energy per year** as a result of chiller and lighting optimization and more efficient temperature controls implemented in 2003.

As seen in Figure 33, water use increased to more than 86 million liters in 2003, again due to the move to the new building and the ability to better measure usage. Although the new building was designed with efficiency in mind, AMD Singapore is already looking for

ways to conserve water and has established a **goal to reduce water use by eight percent in 2004.** Water flow rates in lavatories and the cafeteria were analyzed in 2003 and reductions at these locations are expected to total 700,000 liters (185,000 gallons) per year. In 2004, Singapore will evaluate irrigation and building cleaning practices.

Solid waste generation decreased by approximately 68 percent in 2003. This is primarily due to actual measurement of quantities generated rather than estimates. AMD Singapore has established paper, aluminum, plastic, battery, and printer cartridge recycling in the new building. Figure 34 shows that hazardous waste generation stayed relatively constant in 2003.

For additional site performance information, refer to pages 52–53.

(Gigawatt-hours)

Year	1999	2000	2001	2002	2003
Value	32.8	38.1	48.4	50.4	55.3
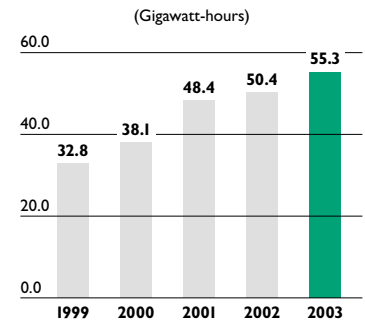
Figure 32
AMD Singapore
Electricity Use

(Million liters)

Year	1999	2000	2001	2002	2003
Value	8.6	5.0	4.9	4.6	86.4
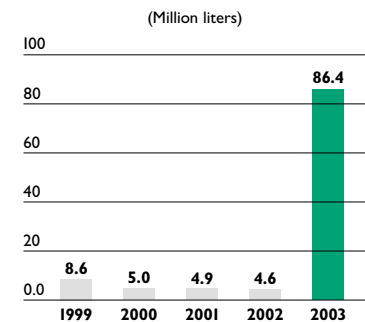
Figure 33
AMD Singapore
Water Use

(Kilograms)

Year	1999	2000	2001	2002	2003
Value	566	778	987	1,444	1,407

Figure 34
AMD Singapore
Hazardous Waste Generation

Suzhou

Site: FASL Suzhou

Year Established: 1999

Operations: Assembly, test, mark, and pack for Spansion Flash memory and communication products

Number of Employees: 700

AMD's Suzhou site was transferred to FASL LLC in June 2003. To help with the transition, FASL Suzhou held Culture Week to promote corporate values and awareness of FASL LLC's Spansion brand. Employees participated in activities to encourage employee bonding and pride.

Social Performance

Responding to SARS

As with many global companies, AMD was impacted by the fact that the Suzhou site was close to the SARS epidemic that occurred in 2003. The site quickly implemented stringent preventive measures, including sanitizing the facility, and there were no cases of SARS reported at the Suzhou site. FASL Suzhou was recognized by the Suzhou Industrial Park Government for its efforts.
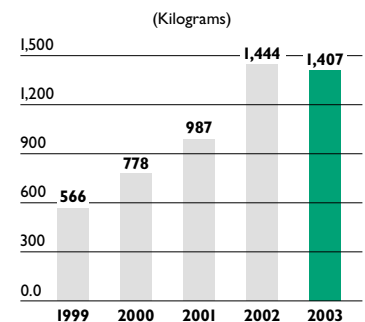
The Suzhou site's injury and illness rate increased to 0.44 cases per 100 workers, up from 0.14 cases in 2002 as illustrated in Figure 35. A small increase in the absolute number of cases has a significant impact on the case rate at sites with a low case rate, such as Suzhou; the site had only three reportable cases in 2003, up from one in 2002. FASL Suzhou has its own **on-site health-care clinic and a full-time doctor on staff.**

Giving Back to the Community

FASL Suzhou supports education and social services in the community, contributing $52,000 in grants, $13,000 in in-kind contributions and more than 400 hours of volunteer service in 2003. FASL Suzhou and site employees supported the community by:

- Holding the site's first bone marrow drive
- **Granting AMD scholarships for students at Suzhou University**
- Sponsoring tuition for 120 primary school students through Project Hope and Xuguan Primary School
- Coordinating the "Under the Same Sky" fundraising event that raised approximately $1,500 for poor people in Suzhou
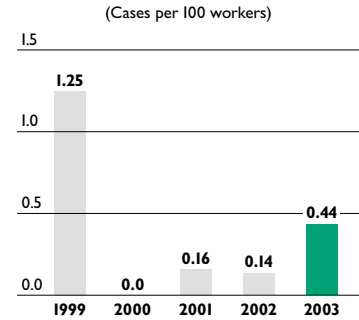- Coordinating an outing to the aquarium for less fortunate students

(Cases per 100 workers)

1.5

1.25

1.0

0.5

0.44

0.0   0.0   0.16   0.14

1999   2000   2001   2002   2003

**Figure 35
FASL Suzhou
Occupational Injury and Illness Rates**

Environmental Performance

In 2003, production increases at FASL Suzhou resulted in a six-percent increase in electricity consumption and a 32-percent increase in water consumption compared to 2002 as presented in Figures 36 and 37. These production-related increases were partly offset by implementing a vacuum system cooling water recycling project and optimizing water use in lavatories. These projects are expected to result in water savings of 11.6 million liters (3.1 million gallons) per year. Water conservation efforts will continue in 2004 with a project to reuse treated wastewater for landscape irrigation to conserve an estimated 2.5 million liters (660,000 gallons) per year.

Figure 38 shows that **hazardous waste generation decreased by more than 15 percent in 2003** by increasing the efficiency of material inputs to the manufacturing process. Optimized controls resulted in reducing waste from a semiconductor packaging process from 50 percent to 20 percent, a savings of 2,340 kilograms (5,160 pounds). Plans for 2004 include projects to continue optimizing manufacturing processes to generate less waste.

For additional site performance information, refer to pages 52–53.

(Gigawatt-hours)

1999	2000	2001	2002	2003
12.03	16.21	18.99	18.46	19.65
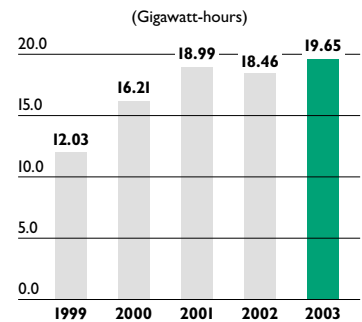
Figure 36
FASL Suzhou
Electricity Use

(Million liters)

1999	2000	2001	2002	2003
87	159	94	103	136
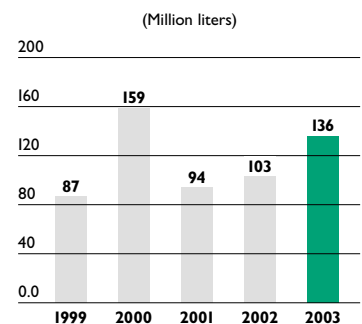
Figure 37
FASL Suzhou
Water Use

(Thousand kilograms)

1999	2000	2001	2002	2003
4.1	40.5	2.2	7.1	6.0

Figure 38
FASL Suzhou
Hazardous Waste Generation

Research and Development

Sunnyvale

Site: AMD and FASL Sunnyvale

Year Established: 1969

Operations: AMD and FASL LLC
Corporate Headquarters, product design,
research and development for Spansion
Flash memory products, and product
design for microprocessors

Number of Employees: 3,200

The Sunnyvale, California site hosts the
corporate headquarters for AMD, and with
Japan, co-hosts the FASL LLC corporate
headquarters. AMD's main research and
development facility, the Submicron
Development Center (SDC) was transferred
to FASL LLC and supports FASL LLC's
advanced wafer manufacturing technology
research and development, ensuring that
the company meets future technology
needs with industry-leading manufacturing
processes. The Sunnyvale site is also home
to the Technology Development Group; two
design centers; and package, assembly, and
test research and development supporting
AMD and Spansion brand products.

Social Performance

Preventing Repetitive Motion Injuries
Protecting our most valuable resource,
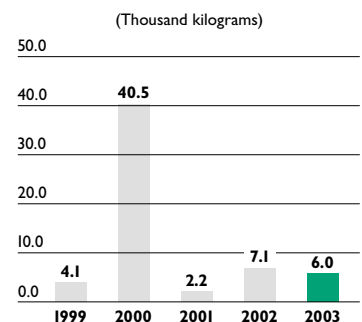our employees, is always a top priority.
**Sunnyvale emphasizes injury and illness
prevention with a particular focus on
preventing repetitive motion injuries (RMIs),**
which continue to comprise the largest
portion of the site's injuries and illnesses.
In 2003, significant relocation of people and
offices provided an opportunity to ensure
the proper ergonomic set-up of cubicles
and workstations in the new locations.
Efforts to increase awareness of RMIs and
encourage early reporting benefited the site
by contributing to a **29-percent decrease
in the site's injury and illness rate** compared
to 2002 as seen in Figure 39.

(Cases per 100 workers)

Year	Rate
1999	1.38
2000	2.06
2001	1.58
2002	1.79
2003	1.27
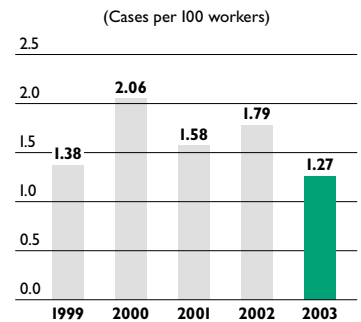
Figure 39
AMD Sunnyvale
Occupational Injury and Illness Rates

AMD volunteers continued
their long-time commitment
to clean beaches by participating
in the coastal cleanup.

Serving Our Community

In addition to the company's commitment to employees, AMD has a strong, longstanding commitment to the community. In recognition of the company's dedication and contribution to the community, the site was honored with the **Service to the Community Award from the Sunnyvale Chamber of Commerce.**

"AMD is always the first company that comes to mind whenever the Chamber is asked about private/public partnership. It is a reputation that AMD has earned through years of hard work and attention to the needs and concerns of the community… AMD has raised the bar by which other companies in Sunnyvale and perhaps even around the country are judged for community partnerships."

— Suzi Blackman, CEO of the Sunnyvale Chamber of Commerce

Many organizations in Sunnyvale and Santa Clara County benefited from the more than $720,000 in grants; $160,000 in in-kind donations; $300,000 in Matching Gifts and GIVE donations; and nearly 1,500 volunteer hours that were contributed by the company and its employees in 2003. Efforts included:

- Volunteering at food banks, in classrooms, and for environmental causes
- Hosting the **New Teacher Project to train veteran teachers to help new teachers** as they start their careers
- Supporting the Baldrige in Education training system for teachers, based on the Malcolm Baldrige Criteria for Performance Excellence
- Assisting partner schools and educational agencies and programs such as Science Buddies and Junior Achievement with funding, tutoring, and educational events and competitions
- Providing funding to the Emergency Housing Consortium, Sunnyvale Community Services, the Housing Trust of Santa Clara County, the Lucile Packard Foundation for Children's Health, and Child Advocates
- Participating in California Coastal Clean-up to remove debris from the coastline
- Providing training space for local police and fire departments
- Donating reusable office supplies to Resource Area for Teachers
- Supporting **Project HELP,** an academic intervention program for at-risk elementary students

Such contributions earned AMD the 23rd position in the San Francisco Business Times' list of the Top 50 Corporate Giving Programs in the Bay Area.

"Leaders of the companies on our Top 50 list understand the power of building community through philanthropy. They know the value of balancing bottom-line accountability with social responsibility and they weave this into the fabric of their companies…"

— Mary Huss, Publisher of the San Francisco Business Times

Environmental Performance

Since research and development facilities often operate in partial-manufacturing flows, a normalization factor based on individual process steps called "wafer activities" is used to report metrics for the Sunnyvale site.

The consolidation of office and lab space in 2003 contributed to the decrease in absolute electricity and water usage shown in Figures 40 and 41. Although total electricity use decreased slightly, normalized usage increased 24 percent because the equipment in the manufacturing area must continue to operate even at lower production levels.

In addition to building consolidation, other factors contributing to the seven-percent decrease in water use include lower production levels, more efficient landscape irrigation, increased efficiency of the ultrapure water treatment system, and a chilled water loop retrofit project. Normalized water use increased by nearly 19 percent because a de minimis quantity of water is required during equipment idling, regardless of production levels. Projects planned for 2004 include

using treated groundwater for irrigation and reclaimed water in the cooling towers and scrubbers. Together these projects are expected to conserve city water usage by 53 million liters (14 million gallons) per year.

Although overall hazardous waste generation decreased slightly in 2003, normalized hazardous waste increased by more than 25 percent due to lower production levels as seen in Figure 42. Plans for 2004 include further reductions in the use of certain chemicals and the installation of a new polishing tool that generates less hazardous waste.

Solid waste generation decreased by more than 15 percent, with 55 percent diverted from landfills through active recycling and reuse programs. AMD Sunnyvale and Austin received an honorable mention from the U.S. Environmental Protection Agency's Waste Wise program for recycling and pollution prevention activities. AMD Sunnyvale received a Waste Reduction Awards Program (WRAP) award from the California State Integrated Waste Management Board for the ninth consecutive year.

AMD has been conducting groundwater cleanup efforts for over 10 years at two sites. In an effort to improve and accelerate the cleanup process at one site, AMD is performing a pilot study of in-situ bioremediation which is the process of enhancing the growth of naturally occurring microorganisms in the soil to encourage them to increase their consumption of contaminants. The pilot study, to be completed in June 2004, appears to be successful. A plan to begin full-scale in-situ bioremediation will be submitted to the Regional Water Quality Control Board in 2004. Remediation operations for AMD's two other sites were transferred to other responsible parties through legal agreements in 1999 and 2002.

AMD received a Notice of Violation from the City of Sunnyvale Sewer District for exceeding wastewater discharge pH limits on two separate occasions in 2003. The City conducted an inspection in January 2004 and confirmed that the issue has been resolved to their satisfaction.

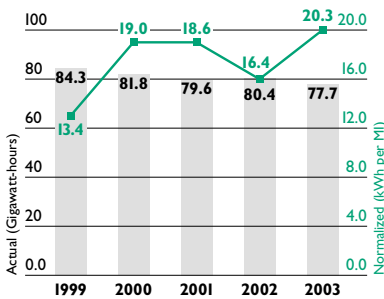For additional site performance information, refer to pages 52–53.

Figure 40
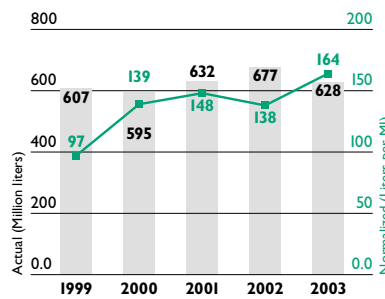**AMD Sunnyvale**
Electricity Use

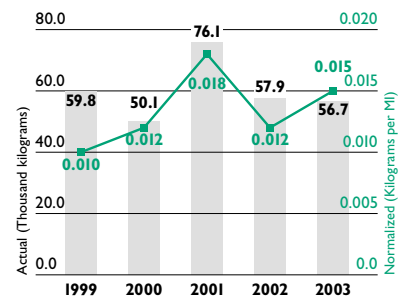**Figure 41**
AMD Sunnyvale
Water Use

Figure 42
AMD Sunnyvale
Hazardous Waste Generation

New FASL LLC Sites

As a result of the creation of FASL LLC, AMD will begin reporting on both AMD and FASL LLC sites in this 2003 report. AMD is still evaluating the programs in place at the sites in Aizu-Wakamatsu, Japan and Kuala Lumpur, Malaysia, which were formerly operated by Fujitsu. Consequently, less information about those sites is included in this report. Complete coverage of these sites is planned for the 2004 Sustainability Progress Report.

Aizu-Wakamatsu, Japan

Three Flash memory wafer manufacturing facilities, JVI, JV2, and JV3, in Aizu-Wakamatsu, Japan, were originally part of a joint venture established in 1993 between Fujitsu and AMD. JVI and JV2 began operating in 1994 and 1997, respectively, and are located in Monden Industrial Park on 62,640 square meters (15 acres) of land. JV3 began operating in 2001 and is located within Takaku Industrial Park on 118,945 square meters (29 acres) of land. Both sites were certified to ISO 14001 in March 2002. Fujitsu operated these facilities until they were transferred to FASL LLC in 2003.

Since the creation of FASL LLC, extensive work has been done benchmarking between the newest FASL LLC fabs, JV3 and Fab 25, to identify best practices, reduce costs, and improve the overall operations of both facilities. This process has helped to develop the working relationship between the two Fabs and build a global culture.

The Monden and Takaku sites have numerous health and safety programs in place to protect employees and the community. The sites hold joint monthly health and safety meetings that are attended by the plant managers, safety supervisors, health supervisors, industrial physicians, and health and safety representatives from each department. Employees receive annual health and safety training in the areas of general health and safety education, hazardous material handling, and health and safety training specific to the workplace. Both sites have on-site health clinics. Employees are given annual medical examinations, and certain job functions have semi-annual examinations.

Other health and safety procedures in place include semi-annual indoor air quality monitoring, annual inspections by the fire department, and annual fire drills. Each site has also developed emergency response plans.

Kuala Lumpur, Malaysia

The Kuala Lumpur site performs assembly, test, mark, and pack operations for Spansion Flash memory and communication products and is located in Shah Alam, Selangor, Malaysia. The site was established in 1988 on 239,574 square meters (59 acres) of land and has been certified to ISO 14001 since May 1998.

Since the formation of FASL LLC, significant progress has been made to develop common processes, training programs, and a global final manufacturing culture. The site management team participates in manufacturing operations reviews and other management processes, sharing and implementing best practices among the FASL LLC final manufacturing facilities.

The Kuala Lumpur site has a full-time Safety and Health Officer responsible for site safety and health programs, as well as monthly meetings of the Safety and Health Committee. Inspections of fire protection and electrical equipment are conducted monthly and an emergency response plan has been developed. Additionally, an emergency response team, composed of representatives from various departments, receives training in basic fire safety, chemical safety, and other OSHA requirements.

Employees at the site are also active in their communities. Community activities in 2003 included:
- Planting trees at Kinarut, Sabah
- Visiting Port Klang Children's Home— providing lunch and small gifts, and organizing games
- Donating household goods to local charities
- Donating blood—125 employees participated in an on-site blood drive

Sustainability Performance Metrics Tables

Basis of Measurement		AMD recordable injury and illness case rate	Total water use	Normalized water use	Total water conservation	Electricity consumed	Normalized electricity use	EHS citations or notice of violations	EHS citations or notice of violations	Reportable spills	Reportable spills	EHS agency inspections
		Per 100 workers	Liters	per MI*	Liters	KWh	per MI*	#	Fines in US$	#	Kilograms	#
Wafer Fabrication												
AUSTIN	'03	1.17	2,885,100,438	8.86	816,441,690	285,594,267	0.88	0	0	0	0	6
	'02	1.63	3,291,987,495	13.75	1,626,227,778	311,537,186	1.30	0	0	0	0	9
	'01	1.53	3,511,058,056	9.79	1,650,583,030	334,360,408	0.93	1	0	0	0	17
	'00	2.26	3,852,733,560	8.65	1,284,705,645	340,607,019	0.76	0	0	0	0	9
	'99	2.74	4,099,262,546	10.63	1,098,681,125	345,389,794	0.90	0	0	1	0	5
DRESDEN	'03	0.39	1,501,679,000	3.52	200,846,090	145,505,000	0.34	0	0	0	0	6
	'02	0.54	1,542,881,000	4.56	161,576,510	132,584,000	0.39	1	150	0	0	3
	'01	0.55	1,589,998,000	6.93	96,254,320	108,146,000	0.47	0	0	0	0	6
	'00	0.72	1,050,303,000	30.93	59,314,100	77,856,000	2.29	0	0	0	0	11
	'99	0.24	930,962,000	0.00	3,040,000	61,687,000	0.00	0	0	0	0	5
Research and Development												
SUNNYVALE	'03	1.27	628,022,288	164.23	102,097,111	77,654,628	20.31	1	0	0	0	13
	'02	1.79	676,748,882	138.14	115,593,635	80,399,808	16.41	0	0	0	0	8
	'01	1.58	632,124,263	147.79	115,479,291	79,565,052	18.60	1	500	0	0	10
	'00	2.06	595,373,676	138.51	112,257,446	81,811,861	19.03	3	0	0	0	10
	'99	1.38	607,245,530	96.84	92,931,064	84,301,831	13.44	0	0	1	300	14
Final Assembly and Test												
BANGKOK	'03	0.26	351,111,000	NA	21,840,000	38,642,261	NA	0	0	0	0	0
	'02	0.00	314,593,000	NA	45,504,000	36,230,000	NA	0	0	0	0	0
	'01	0.15	348,454,000	NA	59,689,698	34,003,000	NA	0	0	0	0	0
	'00	0.05	395,895,000	NA	131,714,809	36,417,000	NA	0	0	0	0	0
	'99	0.10	404,484,000	NA	277,355,000	34,637,000	NA	0	0	0	0	4
PENANG	'03	0.27	321,173,463	NA	44,051,580	40,462,692	NA	0	0	0	0	4
	'02	0.13	461,229,219	NA	21,740,428	52,749,032	NA	0	0	0	0	12
	'01	0.16	682,826,340	NA	34,011,467	75,585,003	NA	0	0	0	0	8
	'00	0.18	750,327,612	NA	5,662,118	73,301,897	NA	0	0	0	0	14
	'99	0.32	920,396,443	NA	27,011,930	63,060,872	NA	0	0	0	0	9
SINGAPORE	'03	0.69	86,367,000	NA	2,522,300	55,292,050	NA	0	0	0	0	5
	'02	0.08	4,628,304	NA	398,768	50,351,141	NA	0	0	0	0	2
	'01	0.29	4,890,742	NA	379,549	48,387,779	NA	0	0	0	0	4
	'00	0.23	5,014,448	NA	369,920	38,132,638	NA	0	0	0	0	5
	'99	0.41	8,607,080	NA	344,284	32,837,496	NA	0	0	0	0	2
SUZHOU	'03	0.44	136,034,000	NA	9,053,000	19,650,420	NA	0	0	0	0	6
	'02	0.14	102,840,000	NA	2,016,000	18,464,300	NA	0	0	0	0	2
	'01	0.16	93,937,000	NA	2,466,000	18,992,000	NA	0	0	0	0	0
	'00	0.00	158,750,000	NA	0	16,214,820	NA	0	0	0	0	0
	'99	1.25	86,592,000	NA	0	12,027,000	NA	1	0	2	5,904	1

* MI = Manufacturing Index
† MMTCE = Million Metric Tons of Carbon Equivalent emissions

	Basis of Measurement	Perfluorocompound gas emissions	Air emissions: Corrosives	Air emissions: VOCs	Hazardous waste generation	Normalized hazardous waste generation	Burned for fuel recovery offsite	Treated offsite	Incineration offsite	Landfilled offsite	Recycled or reused	Other solid waste off site disposal (refuse, trash, etc.)	Wastewater discharged
		MMTCE†	Kilograms	Kilograms	Kilograms	per MI*	Kilograms	Kilograms	Kilograms	Kilograms	Kilograms	Kilograms	Liters
Wafer Fabrication													
AUSTIN	'03	0.0249	2,126	33,938	445,826	0.0014	74,217	4,018	360,792	0	6,798	4,101,759	2,885,100,438
	'02	0.0326	4,384	51,212	739,017	0.0031	0	0	712,641	0	26,376	1,794,033	3,090,892,283
	'01	0.0582	8,359	53,195	1,074,115	0.0030	0	0	1,056,665	0	17,450	1,917,701	3,336,166,141
	'00	0.0803	23,269	38,165	1,301,423	0.0029	0	0	1,292,892	0	8,531	2,097,734	3,446,967,448
	'99	0.0705	16,748	35,119	1,341,667	0.0035	0	0	1,335,673	1,596	4,398	2,138,757	3,823,591,068
DRESDEN	'03	0.0005	4,978	8,167	3,726,061	0.0087	19,900	2,108,952	534,869	478,810	583,530	1,101,856	1,237,606,000
	'02	0.0004	5,209	6,817	3,122,009	0.0092	21,125	1,588,295	114,437	941,680	456,472	670,762	1,268,143,000
	'01	0.0003	2,711	5,146	2,096,675	0.0091	11,086	1,190,420	87,924	349,270	457,975	658,550	1,364,364,000
	'00	0.0001	1,291	2,859	963,940	0.0284	62,700	397,390	33,760	28,000	442,090	541,690	878,746,000
	'99	0.0001	235	216	499,270	NA	62,776	200,477	21,276	4,571	210,170	434,510	732,722,800
Research and Development													
SUNNYVALE	'03	0.0029	1,122	525	56,652	0.0148	0	24,610	20,412	6,747	4,883	1,361,076	423,148,384
	'02	0.0034	1,204	579	57,903	0.0118	0	29,268	20,935	6,645	1,054	1,613,323	437,177,751
	'01	0.0034	848	695	76,074	0.0178	0	34,912	23,255	13,809	4,099	2,462,466	375,446,333
	'00	0.0053	681	672	50,067	0.0116	9,088	11,665	11,550	9,063	8,700	2,272,625	380,327,060
	'99	0.0074	960	460	59,846	0.0095	17,622	8,914	14,736	15,446	3,128	2,140,646	367,854,128
Final Assembly and Test													
BANGKOK	'03	0	0	0	69,723	NA	0	46,441	23,282	0	0	392,113	173,777,000
	'02	0	0	0	91,400	NA	0	91,400	0	0	0	232,084	164,047,000
	'01	0	2	0	128,883	NA	0	128,883	0	0	0	306,990	159,781,100
	'00	0	0	0	353,950	NA	0	353,950	0	0	0	826,710	190,689,163
	'99	0	0	0	309,057	NA	0	309,057	0	0	0	593,516	127,128,000
PENANG	'03	0.0001	0	0	7,640	NA	0	2,340	5,300	0	0	108,603	157,908,798
	'02	0.0002	0	0	25,990	NA	0	3,250	5,680	17,060	0	149,451	49,969,741
	'01	0	0	0	30,646	NA	0	1,606	4,930	24,110	0	420,258	284,178,487
	'00	0	0	0	56,806	NA	0	6,776	29,230	20,800	0	436,134	345,102,446
	'99	0	0	0	25,821	NA	0	10,581	0	15,240	0	365,000	593,689,484
SINGAPORE	'03	0	0	0	1,407	NA	0	1,407	0	0	0	191,650	34,547,400
	'02	0	0	0	1,444	NA	0	1,444	0	0	0	593,976	1,052,100
	'01	0	0	0	987	NA	0	987	0	0	0	617,902	3,794,242
	'00	0	0	0	778	NA	0	778	0	0	0	439,238	3,688,940
	'99	0	0	0	566	NA	0	566	0	0	0	440,400	4,958,380
SUZHOU	'03	0	0	0	5,964	NA	0	235	5,729	0	0	253,812	113,336,200
	'02	0	0	0	7,054	NA	0	349	6,705	0	0	258,158	82,272,000
	'01	0	0	0	2,184	NA	0	0	2,184	0	0	386,725	75,149,600
	'00	0	0	0	40,517	NA	0	0	40,050	467	0	443,100	127,000,000
	'99	0	0	0	4,100	NA	0	0	4,100	0	0	0	44,081,218

About AMD

AMD (NYSE:AMD) designs and produces microprocessors, Flash memory devices and low-power processor solutions for the computer, communications, and consumer electronics industries. AMD is dedicated to helping its customers deliver standards-based, customer-focused solutions for technology users, ranging from enterprises to government agencies and individual consumers. Founded in 1969, AMD is a Standard & Poor's 500 company with global operations and manufacturing facilities in the United States, Europe, Japan, and Asia. For more information, visit www.amd.com

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