

## Environmental, Safety and Health



# Message from the President & CEO

Environmental stewardship and employee safety and health are integral parts of Texas Instruments' business strategy. We have put this strategy into action by steadily making progress toward three long-time stretch goals: zero wasted resources, zero injuries and zero illnesses.

Success in these efforts is good for our employees, for our communities and for TI's bottom line. Let me provide just a few examples:

- The company's actions regarding ESH make TI a preferred place to work. This makes it easier to attract and retain skilled employees, and it increases their motivation and loyalty.
- We're committed to protecting the environment while boosting the economies of communities where TI operates. This encourages communities to work cooperatively with TI, which helps the company operate more effectively.
- By conserving and recycling resources, we improve the company's efficiency. We believe this helps foster sustainable growth in shareholder value.
- Altogether, success with ESH reduces risk and distractions. This helps us maintain and grow a profitable business over the long-term.

I am proud of this company's commitment to the well-being of its employees and surrounding communities. I'm also proud of all Tiers who have worked so hard to enhance this company's legacy as a trusted supplier, employer, community member and investment. We've made great progress, as you can read in this report. I can assure you that the people of TI are committed to doing even better in the years ahead.



A handwritten signature in black ink, which appears to read "Richard K. Templeton". The signature is stylized and fluid.

**Richard (Rich) K. Templeton**  
President and Chief Executive Officer

# TI Awards - 2003

## **The Fourth Grade of Zero Lost Days Award**

Labor Standards Bureau, Ministry of Labor in Japan  
TI Japan, Hiji, Japan  
For Zero Lost Day Case Rate after 23.7 million working man hours (since September 1993). Fourth Grade signifies a high level of achievements for worker safety

## **Energy Efficiency Utilization**

Japan Thermal Storage Association  
TI Japan, Miho, Japan  
For energy efficiency utilization with the Ice Storage Cooling system

## **The First Grade of Zero Lost Days Award**

Labor Standards Bureau, Ministry of Health, Labor and Welfare in Japan  
TI Japan, Miho, Japan  
For Zero Lost Day Case Rate after 7 million working man hours

## **Eleven years Zero Lost Time Award**

Shizuoka Labor Standards Bureau  
TI Japan, Oyama, Japan  
For eleven year's zero lost time injury rate

## **Prime Minister's Hibiscus Award**

Prime Minister of Malaysia  
TI Malaysia, Kuala Lumpur, Malaysia  
For environmental excellence

## **PEZA Environmental Performance (PEP) Award**

Philippines Export Processing Zone  
TI Philippines, Baguio, Philippines  
For performance in sustaining compliance and innovative systems for continued improvement in environmental protection

## **Outstanding Environmental Performance Award**

Philippine Economic Zone Authority  
TI Philippines, Baguio, Philippines  
For complying and exceeding environmental requirements with an initiative of sharing best practices to the region

## **National Safety/IH Excellence Award – Five Stars**

Minister of Council of Labor Affairs, Executive Yuan  
TI Taiwan, Taipei, Taiwan  
For outstanding safety and industrial hygiene performances that are benchmarked to companies nationwide

## **Taipei County Safety/IH Excellence Award**

Taipei County Government (Hsien)  
TI Chung Ho A/T Site, TI Taiwan  
For outstanding Safety and Industrial Hygiene performances that are benchmarked to other companies in the county

## **Perfect Record Award**

National Safety Council  
Tucson, Arizona, USA  
For achieving a one-year milestone on November 23, 2003 with over 2 million hours worked without a work-related lost time injury

## **Perfect Record Award**

National Safety Council  
Warrenville, Illinois, USA  
For achieving a one-year milestone on December 6, 2003 with over 2 million hours worked without a work-related lost-time injury

## **TI ESH Excellence Awards - 2004**

TI's ESH Excellence Award Program recognizes significant internal achievements by site, individual or team. These awards are presented to sites that demonstrate an outstanding commitment to compliance, integration of ESH principles (including utility conservation and integration of fire prevention/protection into their products, processes, and services), continuous improvement and commitment to world-class performance.

### **Gold**

- Aguascalientes, Mexico
- Baguio, Philippines
- Taipei, Taiwan

### **Silver**

- DMOS5, Dallas, Texas, USA
- Kuala Lumpur, Malaysia

### **Bronze**

- Dallas South Building, Dallas, Texas, USA

## **Governor's Award for Outstanding Achievement in Toxics Use Reduction**

Commonwealth of Massachusetts  
Attleboro, Massachusetts, USA  
For pollution prevention advancements in the Leadframe and batch plating shops since 1997

## **Perfect Record Award**

National Safety Council  
DFAB, Dallas, Texas, USA  
For achieving a one-year milestone on August 7, 2003 with over 3.2 million hours worked without a work-related lost-time injury

## **Perfect Record Award**

National Safety Council  
DMOS5, Dallas, Texas, USA  
For achieving a one-year milestone on June 9, 2003 with over 3.5 million hours worked without a work-related lost-time injury

## **Gold Level Clean Air Recognition of Employers (CARE) Award**

North Texas Clean Air Coalition  
Dallas, Texas, USA  
For an outstanding job motivating employees to take proactive initiatives to improve air quality in North Texas

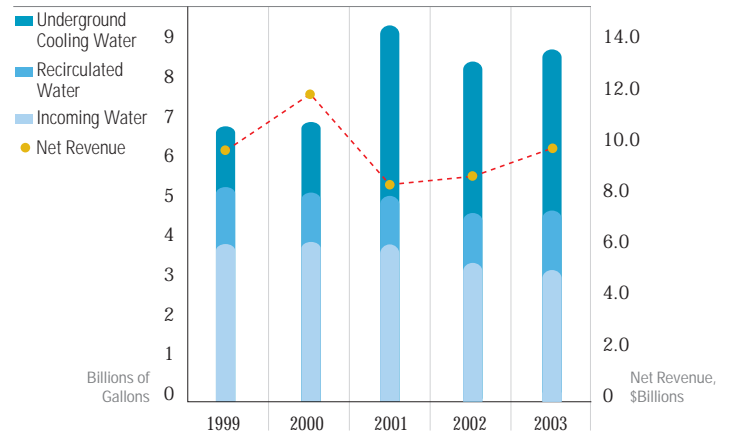
## **Sony Green Partner**

Sony Corporation  
Texas Instruments Semiconductor Group:  
Freising, Germany  
Hiji, Japan  
Miho, Japan  
Kuala Lumpur, Malaysia  
Aguascalientes, Mexico  
Baguio, Philippines  
Taipei, Taiwan  
Dallas, Texas, USA  
Houston, Texas, USA  
Sherman, Texas, USA  
For supplying components, devices and materials to ensure the production of environmentally friendly products

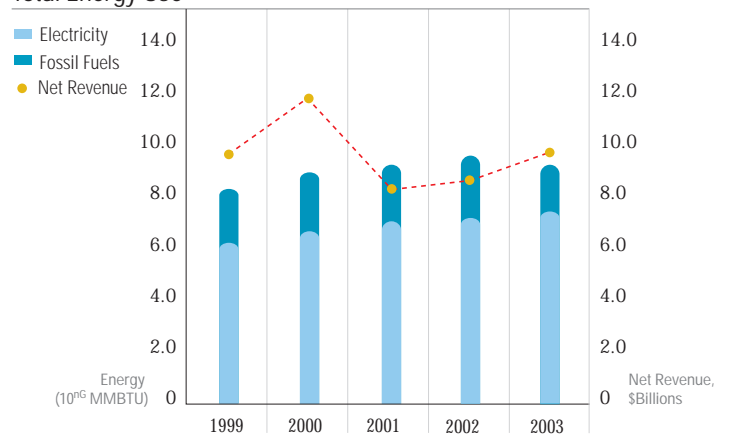
During recent years, numerous divestitures and acquisitions have changed the face of our business and of our ESH performance metrics. As our company focuses on the digital signal processing, analog and mixed-signal solutions markets, we have greatly increased our manufacturing operations, particularly in the United States.

These dynamic operational changes make it difficult to compare our performance from year to year, but we believe there is value in tracking our trends. You'll see we have provided five years of data throughout this report, a reflection of our continued innovative efforts to operate safely and sustainably at all of our facilities worldwide.

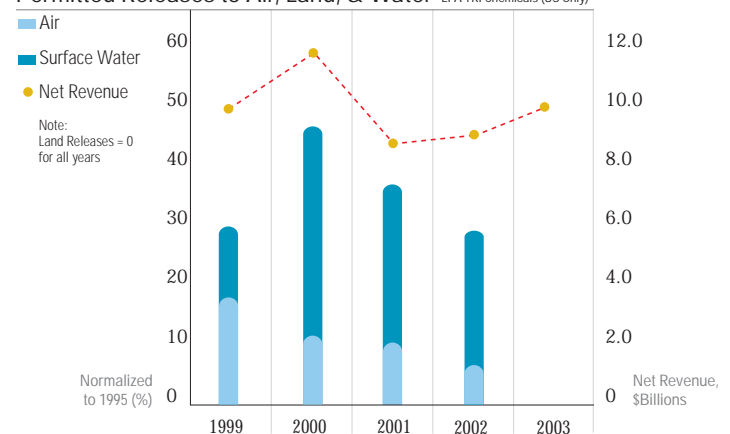
Total TI Water Use



Total Energy Use



Permitted Releases to Air, Land, & Water EPA TRI Chemicals (US Only)



1930

1930 Founded as "Geophysical Service"

1946 Established Lab & Manufacturing Division

1940

1951 Name changed to Texas Instruments Incorporated (TI)

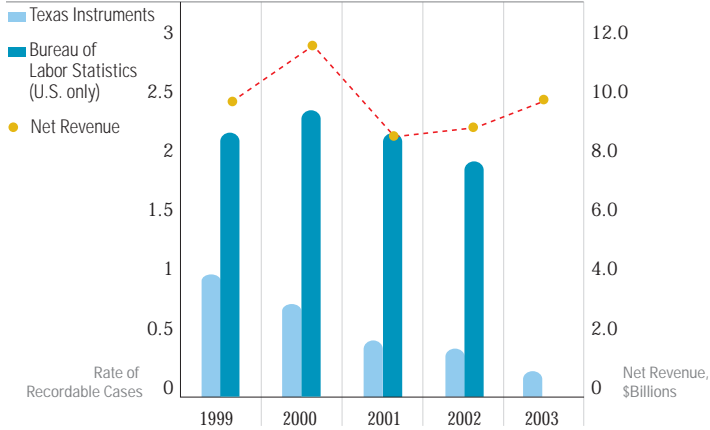
1950

1954 First commercial silicon transistor

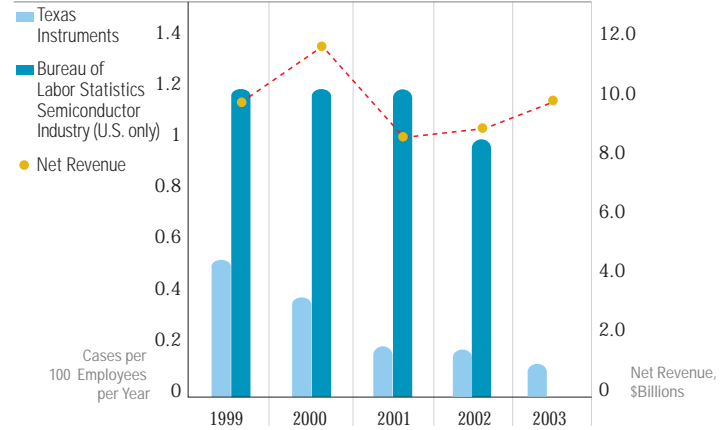
1958 First integrated circuit (IC) by Jack Kilby



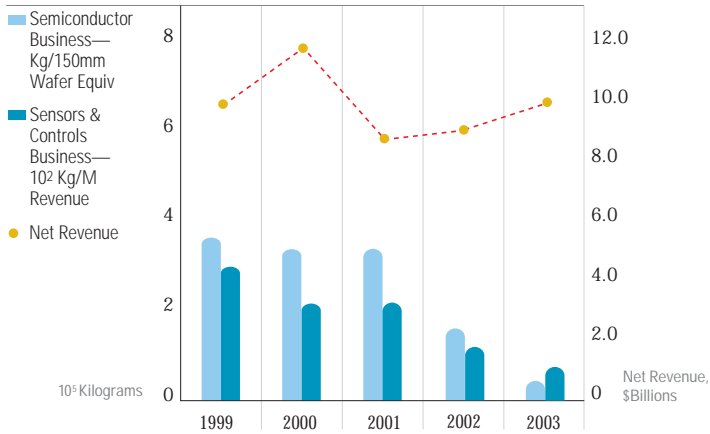
### Recordable Cases



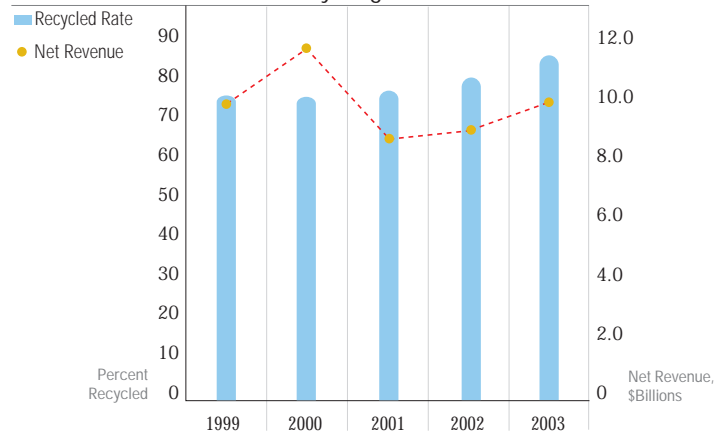
### Lost/Restricted Day Cases



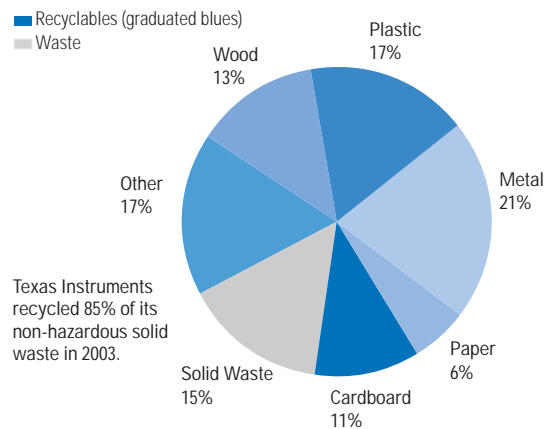
### Worldwide Hazardous Waste



### Non-Hazardous Materials Recycling Rate



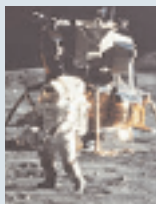
### Non-Hazardous Solid Waste and Recyclables



**1961** First TI ethics booklet published

**1967** Invented electronic hand-held calculator

**1969** Apollo mission landed with aid of TI products



1970



**1970s** First environmental standards adopted

**1970s** First safety standards adopted

**1973** Established energy management program

**1982** Introduced single-chip digital signal processor

**1984** Launched Worldwide ESH Audit Program

**1989** TI Malaysia received Malaysia Award for Excellence in Manufacturing

**1989** Introduced first lead-free alternative to IC market

1980



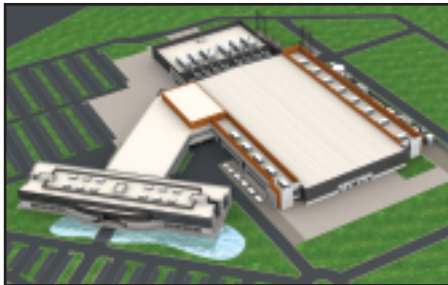
# TI to Build World's Largest Environmentally Sound Fab

On 93-acres in Richardson, Texas, TI intends to break ground in the near future on what will become one of the world's largest environmentally sound semiconductor production facilities.

Its newest wafer fab, a proposed 1.2 million-square-foot facility comprised of four wings, supports TI's long-standing goal of zero wasted resources. And it intends to meet many of the rigorous environmental standards set by the U.S. Green Building Council (USGBC), the nation's foremost coalition of building-industry leaders promoting environmentally safe facilities and sites.

"TI constantly seeks out new and innovative ways to reduce costs through good environmental practices," said Brenda Harrison, Worldwide Environmental, Safety & Health Director. "Work with USGBC helps us stretch farther toward reaching our 'zero' goal."

USGBC offers certification through a 69-point rating system called Leadership in Energy and Environmental Design (LEED). Companies earn LEED points by addressing a myriad of environmental and safety issues, including water and energy efficiency, environmental quality, use of recyclable materials and resources, and storm-water runoff. One of the chief aims is to address multiple issues with a single solution that enhances the environment and reduces costs.



"LEED provides structure to many common-sense environmental issues that TI has been doing operationally for some time," said Paul Westbrook, TI Worldwide Construction Sustainable Design Manager. "We're applying them now for the first time to a new construction project."

After an anticipated 14-months of construction, the facility will include features such as a large pond fed by water runoff to irrigate plants and provide a back-up source for fire protection; natural light generated by large windows to reduce office energy usage by up to 30 percent; restroom water reduction equipment; recycled materials such as steel and lumber; and a recycling facility.

# TI Puts the Brakes on Unsafe Motorcycle Driving

During rush hours in Taipei, motorcycles and busy intersections create a dangerous combination. To promote traffic safety, TI Taiwan, Ltd., or TITL, in Taipei, hosted a three-hour motorcycle safety training course at its Taipei facility. Nearly 700 employees attended. Among the topics of instruction: traffic rules and defensive riding concepts, motorcycle mechanics, and correct and safe riding skills. As a result of TITL's educational efforts, employee's safety awareness was increased. These and other efforts enabled the City of Taipei to experience a substantial decrease in traffic accidents last year.

In a further effort to better understand employees' travel concerns and influence traffic safety, TITL asked its employees to nominate the most dangerous traffic locations in the city. The heavily-traveled intersection located in front of TITL's main gate, which is not regulated by a traffic signal, ranked at the top of the 20 nominated locations.



Historically, governmental regulations have prohibited the use of public funds to install traffic lights on public roads for private organizations, such as TITL. Still, TITL requested a traffic signal at the intersection, and although the City of Taipei declined this request initially, the city is reconsidering after a nearby elementary school made the same request. TITL will continue to work with the local government to find a way to resolve this concern.

"Many employees travel to work on motorcycles," said Edward Fan, Environmental, Safety and Health Associate Manager. "And motorcycle accidents are fairly common. We asked employees to vote on the most dangerous traffic locations because we want them to think and be more cautious when they approach those locations."

"TITL is committed to the safety of our employees and surrounding communities," Fan said. "The traffic safety program is an example of the many programs we have in place to protect our employees."

- 1990** Initiated NHSW recycling worldwide
- 1990** TI Ergonomics Program established
- 1991** Management-driven safety policies established



- 1992** TI-Freising ammonia recycling program established
- 1993** ODS's eliminated in operations
- 1996** TI ESH Policies & Principles adopted
- 1996** TI-Freising became the company's first site to obtain ISO 14001 and EMAS certification
- 1997** Announced biological sensor technology
- 1997** TI-Dallas received Texas Governor's Award for Environmental Excellence

1990

# Fish Swim, Birds Fly, Kids Play at Landfill Turned Park

Today, fish swim in a 1.5 million-gallon pond and birds nest in small wooden houses at the base of the nearly 5,000-foot-high mountains nestled tightly against each other at Texas Instruments Philippines Incorporated, or TIPI, in Baguio, Philippines.

Until 2001, the 10-acre site served as a containment area for the disposal of non-hazardous materials generated by the site. However, the site now recycles 96.6 percent of waste materials, so as the volume of waste decreased – largely a result of the company's goal of zero wasted resources – an alternative use, endorsed by TIPI President and Managing Director, Bing Viera, emerged: Build a park.

TIPI's long-term land-lease agreement with the government required the site to plant trees if the landfill became unnecessary. However, TIPI went a step further. Its site facility group headed by Tony Estillo, Facilities Director, designed the park and employed contract labor to build it. TIPI maintains the area, home to picnic tables, a playground, three species of birds, hundreds of orange carp and newly planted trees. On most weekends, TIPI employees, contractors and local residents use the park for parties and other gatherings.

"We regularly work with government officials on environmental-related projects," said Rosemarie Gonzales, Environmental, Safety and Health Manager. "Employees are very active in the community and in the evolution of the park. For example, employees built houses for birds, regularly fumigate common water-flow areas and conduct quarterly road clean-ups near TIPI with community residents."

The park also makes business sense. Monthly maintenance costs run about \$36 compared to the \$700 monthly cost for maintaining the landfill. Gonzales believes the \$21,727 investment to transform the landfill has been well spent.



The park is the most recent example of TIPI's commitment to the Baguio community. TIPI regularly conducts lectures on recycling and fire prevention and provides health and day care centers to residents.

# The Aggressive Ergonomics Program Pays Off

Four years ago, Texas Instruments Incorporated, TI, noticed a disturbing trend: the rate of recordable on-the-job ergonomic related injuries began creeping close to U.S. semiconductor industry averages. These injuries accounted for roughly 38% of TI's lost/restricted day case rate.

Today, after an aggressive effort to make semiconductor fabrication plants (fabs) and offices more ergonomically friendly, such injuries have been reduced by 79% since 2000. The effort is part of a comprehensive worldwide work-safety program that includes:

- A full day of safety training for all fab workers and at least four hours of training for all non-fab contractors;
- 30-minute interactive Web-based training for office workers (approximately 5,000 employees have taken the course);
- Frequent employee communications about safety issues and trends;
- The utilization of suppliers who make ergonomically friendly manufacturing and maintenance equipment.

The payoff: Last year, TI had the lowest occupational injury and illness rate among U.S. semiconductor companies according to the Semiconductor Industry Association (SIA). In 2003, four TI operations received the Green Cross for Safety Excellence Achievement Award from the National Safety Council for a "perfect record", meaning no one sustained an occupational injury that required time away from work. TI's plant in Bangalore, India, has operated for more than ten years with no work-related injuries or illnesses, and the Chinchon, Korea site, has operated more than eleven years without a work-related injury which resulted in time away from work.

"We believe in caring for our employees and our community," said Kathy Meissner, TI's Worldwide Safety and Health Manager. "We want to make sure that everyone who comes to work at TI, leaves just as healthy as they were when they arrived."

## TI Worldwide Work Safety Record

(Rates calculated based on number of cases per 100 employees.)

Recordable Cases*				Lost/Restricted Day Cases**			
Year	2000	2001	2002	Year	2000	2001	2002
TI	0.82	0.48	0.41	TI	0.34	0.19	0.18
S/C Industry	2.4	2.2	1.9	S/C Industry	1.1	1.2	1
Gen. Industry	6.1	5.7	5.3	Gen. Industry	3.0	2.8	2.8

\*Recordable Cases: A work-related accident or injury that does not result in time away from work or restriction of duties.

\*\*Lost/Restricted Day Cases: A work-related accident or injury on the job that results in time away from work or a restriction of duties.

- 1998** Wafer recycling program established: Recycled wafers converted to solar panels reduce energy consumption
- 1998** Continued acquisitions to strengthen the company's DSP, analog and end-equipment portfolios
- 1999** Sulfuric Acid Reuse Program established
- 1999** Acquisition activity accelerated to strengthen semiconductor leadership



# 2000

- 2000** Jack Kilby awarded the Nobel Prize
- 2000** Company record low for L/RDC Rate\* – 0.34
- 2001** Company record low for L/RDC Rate – 0.19
- 2001** TI announced agreement to not use products made from old growth wood
- 2002** Company record low for L/RDC Rate – 0.18
- 2003** TI launched U.S. mobile phone re-use program
- 2003** Company record low for L/RDC Rate – 0.10

\*Lost/restricted day case rates (L/RDC) – metric that tracks

# Environmental Management Systems

As we develop and formalize our environmental management systems, each TI site chooses the environmental management system that best satisfies the needs of local customers and governments. We consider the International Standard on Environmental Management Systems (ISO 14001) and the European Union Environmental Management and Audit Scheme (EMAS) to be tools that may help individual sites meet TI ESH goals. These certifications may also help sites meet regional standards and marketplace expectations.

## ISO 14001 Certification Status:

### Semiconductor Business Group



#### Baguio, Philippines

- Initial certification: 2/13/97, EMSC-1081, Auditor: DNV
- Current certification: 01 104 010820/2, Auditor: TUV



#### Freising, Germany

- Initial certification: 1996, DE-S-155-00018, Auditor: Intechnika
- Current certification: DE-S-155-00018, Auditor: Intechnika
- EMAS certification: 11/11/96 & 11/23/99, DE-S-155-00018, Auditor: Intechnika GmbH



#### Hiji, Japan

- Initial certification: 11/11/98, CERT-02138-99-AE-HOU-RAB, Auditor: DNV
- Current certification: 1/08/01, CERT-01 104 010820 / 3, Auditor: TUV



#### Kuala Lumpur, Malaysia

- Initial certification: 9/3/1999, EMSC-1572, Auditor: Rva, and CERT-024595-99-AQ-HOU-RAB, Auditor: DNV
- Current certification: 01 104 010820/1, Auditor: TUV



#### Miho, Japan

- Initial certification: 11/11/98, CERT-02138-99-AE-HOU-RAB, Auditor: DNV
- Current certification: 1/08/01, CERT-01 104 010820/4, Auditor: TUV



#### Taipei, Taiwan

- Initial certification: 1996, EMSC-1047, Auditor: DNV
- Current certification: 01 104 010820, Auditor: TUV



#### Tucson, Arizona, USA

- Initial certification: 2000, 950 99 0473, Auditor: TUV



#### Aguascalientes, Mexico

- Initial certification: 10/23/2002, CERT-04872-2003-AE-HOU-RAB, Auditor: DNV



#### Sherman, Texas, USA

- Structured ESH programs addressing ISO 14001 components in place. No certification currently planned.



#### Dallas, Texas, USA

- Structured ESH programs addressing ISO 14001 components in place. No certification currently planned.



#### Houston, Texas, USA

- Structured ESH programs addressing ISO 14001 components in place. No certification currently planned.

### Sensors & Controls Business Group



#### Campinas, Brazil

- Initial certification: 10/24/03, 139807, ANSI RAB EMS Accreditation, Auditor: BVQI



#### Baoying, China

- Initial certification: 02/01, 01 104 000634, Auditor: TUV



#### Chinchon, Korea

- Initial certification: 10/5/2000, EAC-02438, Auditor: Korean Foundation for Quality



#### Attleboro, Massachusetts, USA

- Initial certification: 11/15/2002, 113099, Auditor: Lloyds Registrar Quality Assurance, Inc. (LRQA)



#### Aguascalientes, Mexico

- Initial certification: 10/10/2001, 74 300 9897, Auditor: TUV, Rheinland of North America



#### Almelo, The Netherlands

- Initial certification: 7/1/2002, 2010855, Auditor: KEMA (Bas Cuypers)



#### Oyama, Japan

- Structured ESH programs addressing most ISO14001 components in place. Certification under consideration.

The sites which do not have ISO14001 certification operate under TI's ESH Policy and Principles and in compliance with TI Environmental, Safety and Health Standards. A gap analysis has been completed and is under consideration for improvement as business dictates.