



MAKE A DIFFERENCE



ADI Toxic Use Reduction (TUR) Making A Difference

Elizabeth Tshudy
EH&S Manager



November 3, 2010



Welcome



AGENDA

Company Overview



Brief History of ADI
Wilmington TUR Program



EH&S Strategic Approach



Resulting Achievements



Conclusion

ADI – Developing High Performance Signal Processing ICs Since 1965

Leadership Through Innovation

- ◆ Top market share in converters and high performance amplifiers
- ◆ Application expertise in all markets
- ◆ Breadth of >10,000 products serving >70,000 customers

Financial Strength

- ◆ FY2009 revenues of \$2B
- ◆ 22.2% invested in R&D
- ◆ Traded on the NYSE (ADI)
- ◆ Part of the S&P 500

Global Expertise & Capacity

- ◆ WHQ in Norwood, MA, USA
- ◆ >30 design centers
- ◆ Local sales and support in every region worldwide
- ◆ Responsive manufacturing, distribution, inventory network
 - All plants ISO9001/2000; QS9000; ISO14000; TS16949



Innovation Has Driven 40+ Years of Real-World Signal Processing Leadership



1965 —————> 2009

Innovation Makes a Difference

Competitive Advantages for *Our* Customers

Callout 1 (Top Left): Image of an AD65169 chip. Text: 175+ Million Units Deployed; Supports Real-time Pricing to Save Energy; Reduce CO₂; Save Infrastructure.

Callout 2 (Top Middle): Image of a person holding a camera. Text: Intelligent Focusing; Richer Colors; Finer Details; Less Noise; Easier to Use; HDMI; User-Friendly.

Callout 3 (Top Right): Image of a speaker. Text: Smaller; Uses Less Power; Higher Call Volumes; Supports Global Standards; SW Upgradable.

Callout 4 (Middle Left): Image of a woman sitting on the floor with a TV. Text: World's Best Picture; Enhanced Surround Sound; Simplified Connections; Easy to Control.

Callout 5 (Bottom Left): Image of a satellite and a circuit board. Text: More Accuracy & Precision; Higher Bandwidth; Greater Dynamic Range; Self-Calibrating; SW Configurable.

Callout 6 (Bottom Middle): Image of a patient in an MRI machine. Text: Faster; More Accurate Diagnoses; Image Whole Organs in 4D; Lower X-ray Dose; More Patient Throughput.

Callout 7 (Bottom Right): Image of a speedometer. Text: Higher Mileage; Cleaner Air; Safer Driving; Better Navigation; Hands Free Control.

Innovation

Innovation, performance, and excellence are the pillars upon which Analog Devices, Inc., (ADI) was founded more than 40 years ago. These three governing principles have helped us to build a semiconductor company with impressive core technology depth and product line breadth. Today, these principles are reflected in our approach to sustainability.

We believe sustainability plays an integral role in achieving our business goals. We create sustainable value by adhering to the highest ethical standards; contributing to the communities in which we operate; creating a rewarding workplace for employees; and excelling in environmental, health, and safety management practices. Through innovative thinking and a commitment to the highest level of performance, we not only strive to meet the needs of all our stakeholders—including our employees, customers, shareholders, and communities—but also we believe we ensure the company's ongoing success.

In this, ADI's first sustainability report, we describe our policies and programs in the areas of business ethics; stakeholder engagement; economic impacts; environment, health, and safety; product stewardship; labor practices; and social responsibility. We also highlight some of our more significant 2007 accomplishments and share our goals for the future.

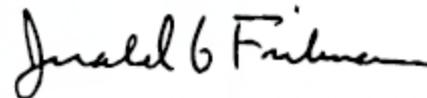
Performance



In the environmental arena, for example, we measure and seek continuous improvements in the areas of energy use, greenhouse gas emissions, water use, air quality, chemical use, and waste reduction and recycling. We achieved positive gains in nearly all of these measures in 2007, and this report communicates our progress.

Of course, much work remains to be done. This report represents the full array of sustainability issues we face as a company, and we continue to expand our understanding and our efforts.

We believe innovative signal processing technology will help our customers to differentiate their products, enhancing the user experience and enriching people's lives. Sustainability is one means to achieve that vision—through innovation and excellence in our economic performance, environmental stewardship, and social responsibility. We appreciate the opportunity to report on our performance in this first sustainability report, and we look forward to sharing our continued progress in the future.

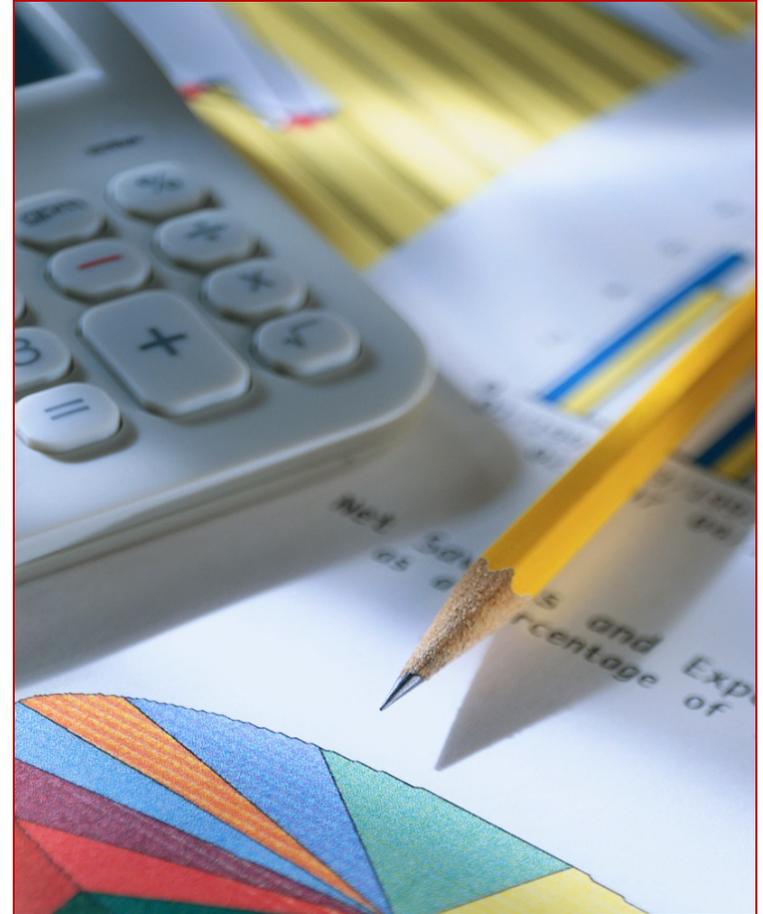


Jerald G. Fishman
President and Chief Executive Officer
March 2009

Excellence

ADI TUR Process

- ◆ **Materials Accounting**
 - Process Characterizations
 - Process Flow Diagrams
- ◆ **TUR Options Identification**
- ◆ **TUR Options Evaluation**
 - Preliminary Screen
 - Options Selection
- ◆ **TUR Plan Implementation**
 - Schedule
 - Tracking



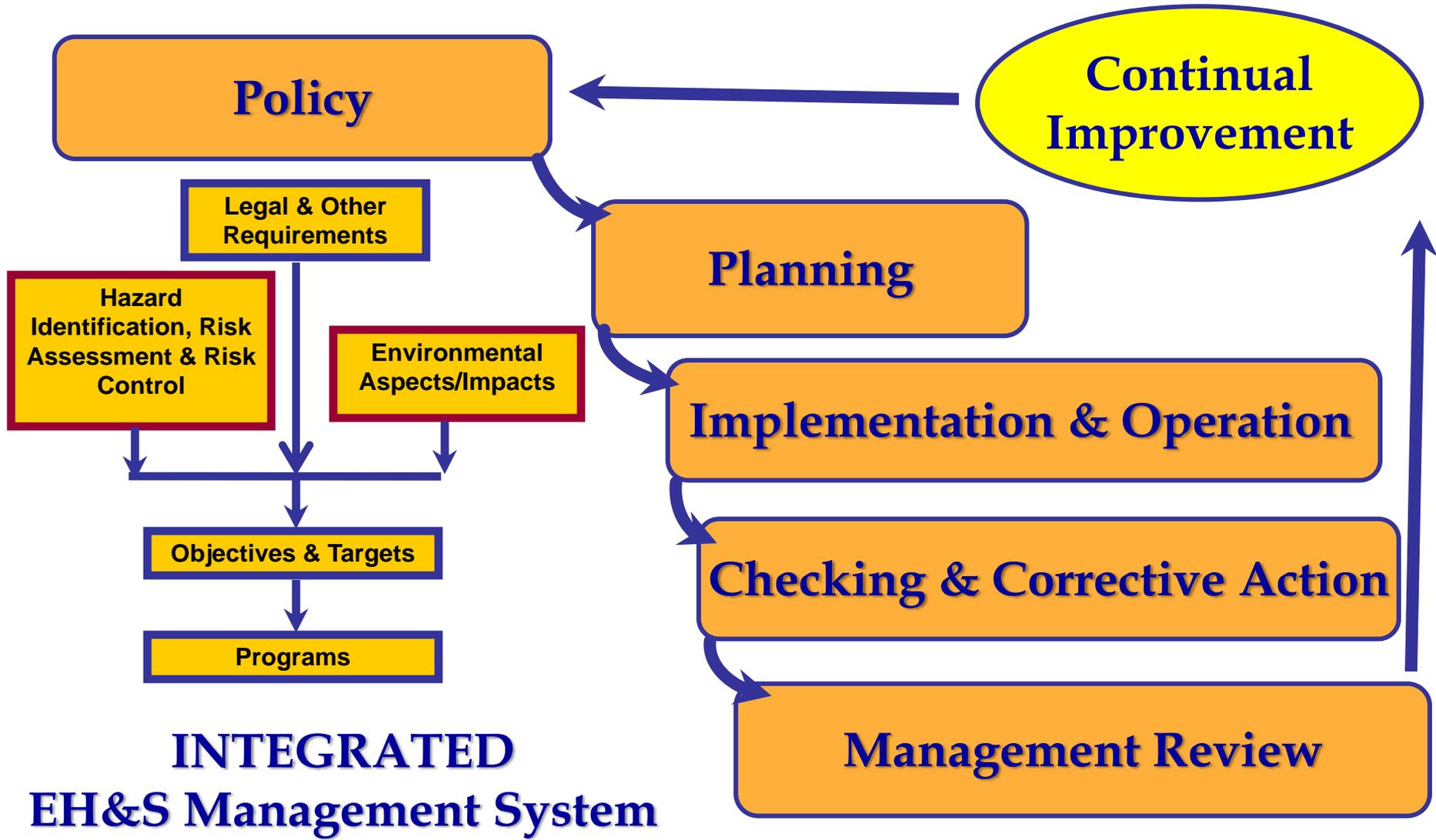


TUR Program

- ◆ **TUR Planning initiated in May 1993.**
- ◆ **Incorporated TUR Planning with the Pollution Prevention Plan.**
- ◆ **Subsequent Biennial TUR Planning Cycles**
- ◆ **First US-based Semiconductor Manufacturer certified to ISO 14001 in 1997.**
- ◆ **Integrated with EH&S Management System**
 - **EH&S Objectives, Targets, Programs**
 - **Management Review - Routine Tracking of Progress through monthly & quarterly metrics**



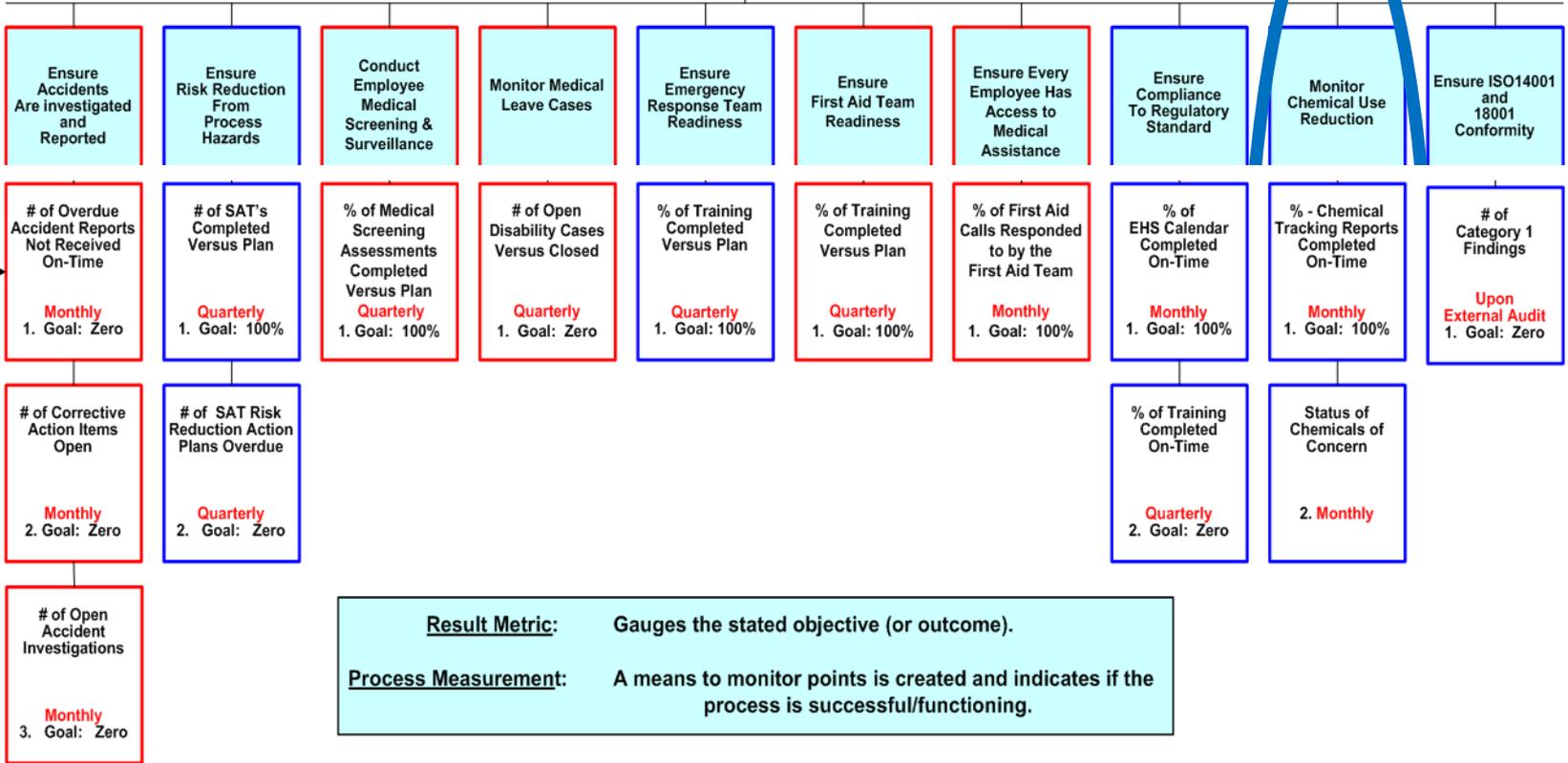
COMPONENTS OF ISO 14001 & OHSAS 18001



**INTEGRATED
EH&S Management System**



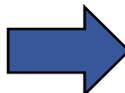
EH&S OBJECTIVES



EHS Calendar



- ◆ Electronic portal that documents all of the EHS activities (regulatory, customer and industry benchmarks)
- ◆ System provides reminders and weekly status reports on completion status and flags interim actions to prevent missing key deadlines.



ANALOG DEVICES

Environmental Health & Safety
Main Console

Accident Reporting	ERT
EH&S Committee	Safety Review Board
EH&S Calendar	Audits
Hazard Risk Analysis	Basement Tour

Filter Action Items by:

Enter a full or partial name (first last) in By Assignee and press enter to search. Doing so with no text will open the search people dialog.

By Assignee+ By Assigned Group

By Item Type By Owner Site

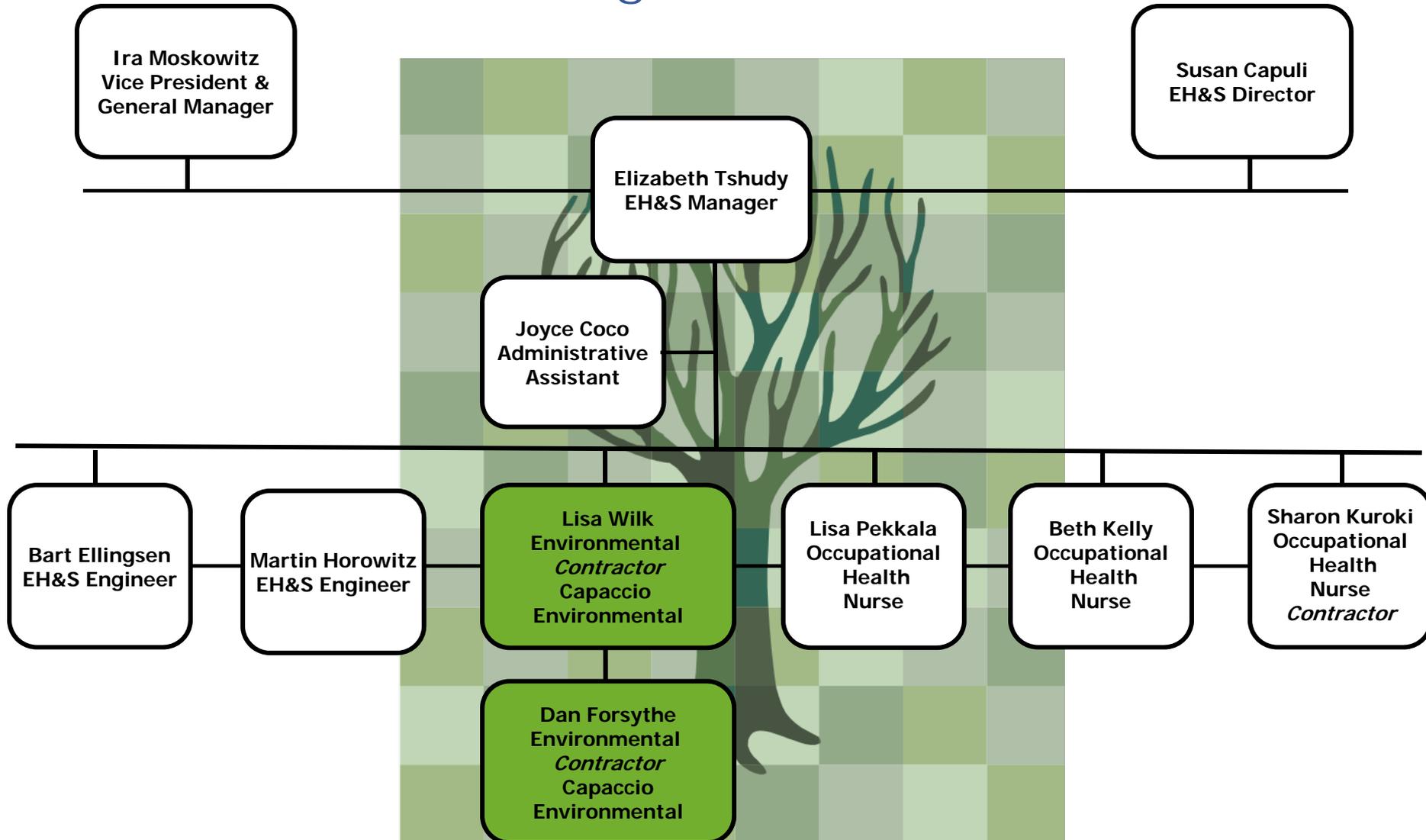
0 entries returned - 0 entries matched

ID	Item Type	Date Open	Date Sch...	Date Due	Date Clo...	Status	Assigned...	Action	Risk Ran...

12

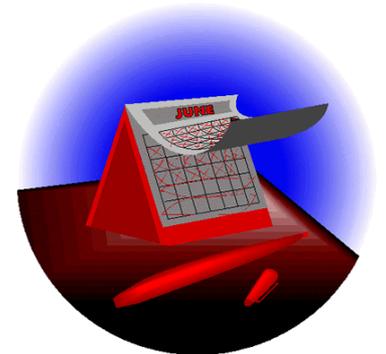
—Analog Devices Confidential Information—

Environmental, Health and Safety Department FY10 Organizational Chart



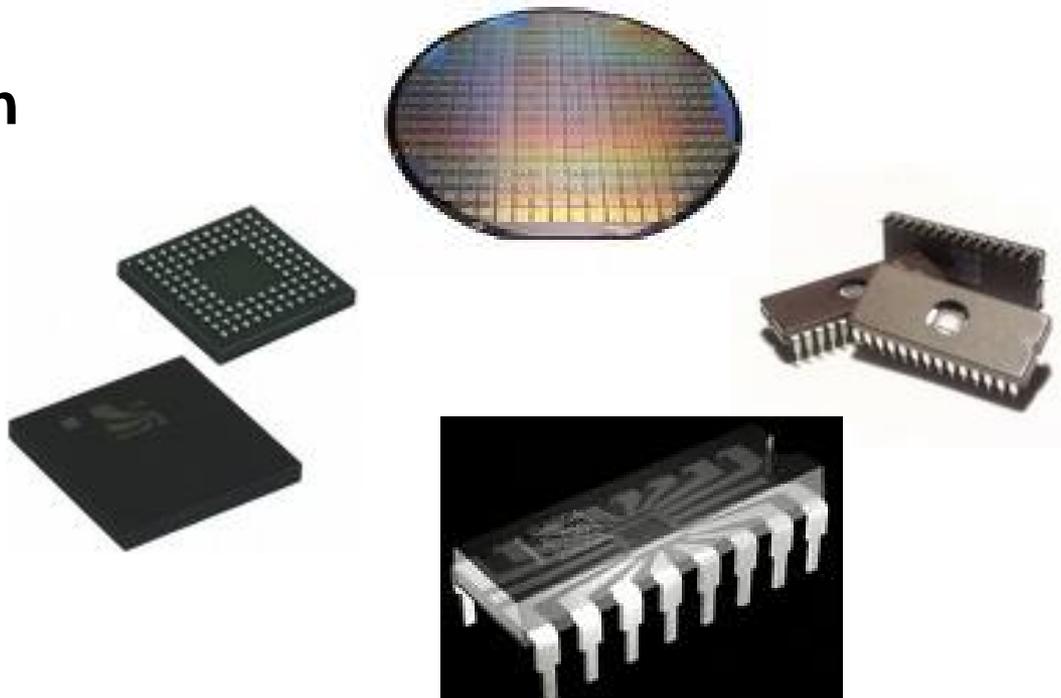
Business Tools

- ◆ **TUR Program**
- ◆ **Integrated EHS Management System**
- ◆ **EHS Calendar**
- ◆ **Total Quality Management**
- ◆ **Process and Performance Measurement**
- ◆ **EHS Team**



ADI TUR Production Units

- ◆ DI Water Production
- ◆ Photolithography
- ◆ Etch
- ◆ Clean
- ◆ CVD/EPI



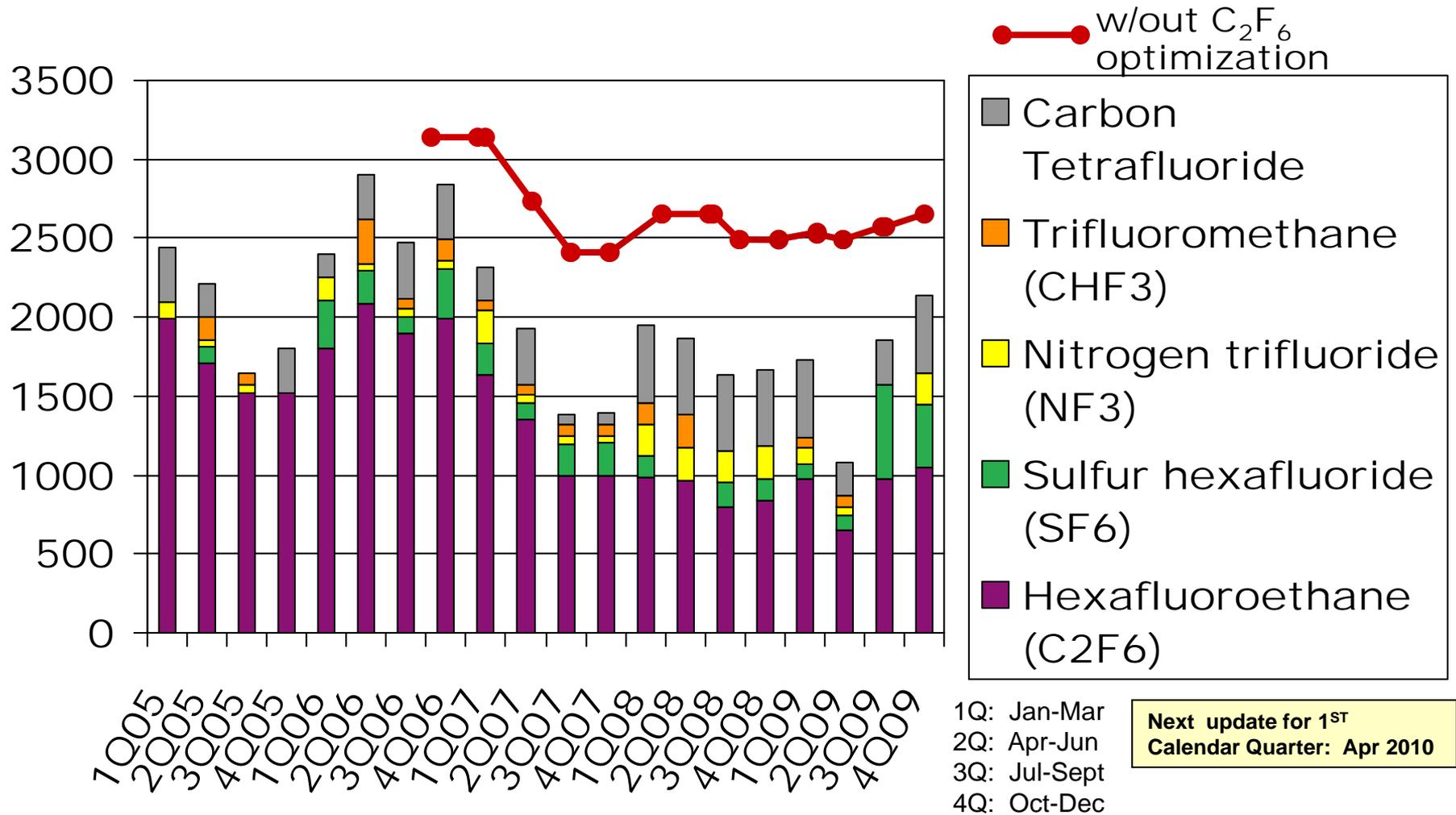
- * Former Production Units include:
HSD, WWT, Silicon Processing

TUR-Related Achievements: Selected Highlights

- ◆ **Elimination of Glycol Ethers**
- ◆ **Reduction of Xylene**
- ◆ **Greenhouse Gas Reduction**
- ◆ **Lead-Free Products**
- ◆ **Water Use Reduction**



Global Warming Gas (GWG) Emissions (tons CO₂ equivalents*) by Calendar Quarter



● Pb- FREE OR DIE ●

Lead Free or Die

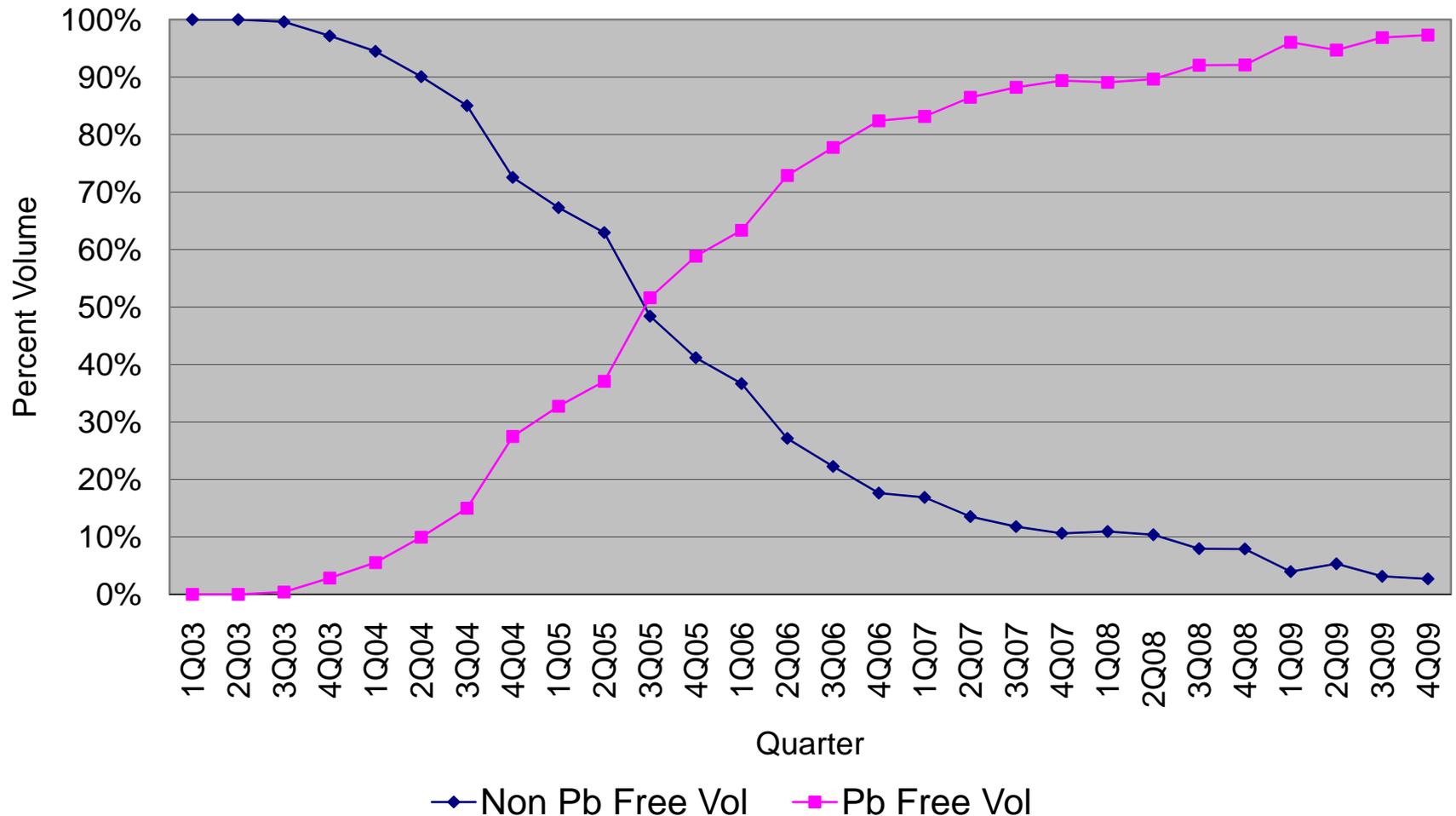


- 18,000 lead free parts available
 - Represents 60% of total Analog Devices parts



Assembly Starts 2003-2009

FY03-FY09 Pb Free Volume vs Non Pb Free Assembly Volume



Distribution of Total Water Use at ADI Wilmington



Potable Water 5%
Used in bathrooms, kitchens
drinking fountains



Industrial Water 35%
Used to run facilities
equipment



Ultra Pure Water 60%
(City water filtered onsite)
Used by production

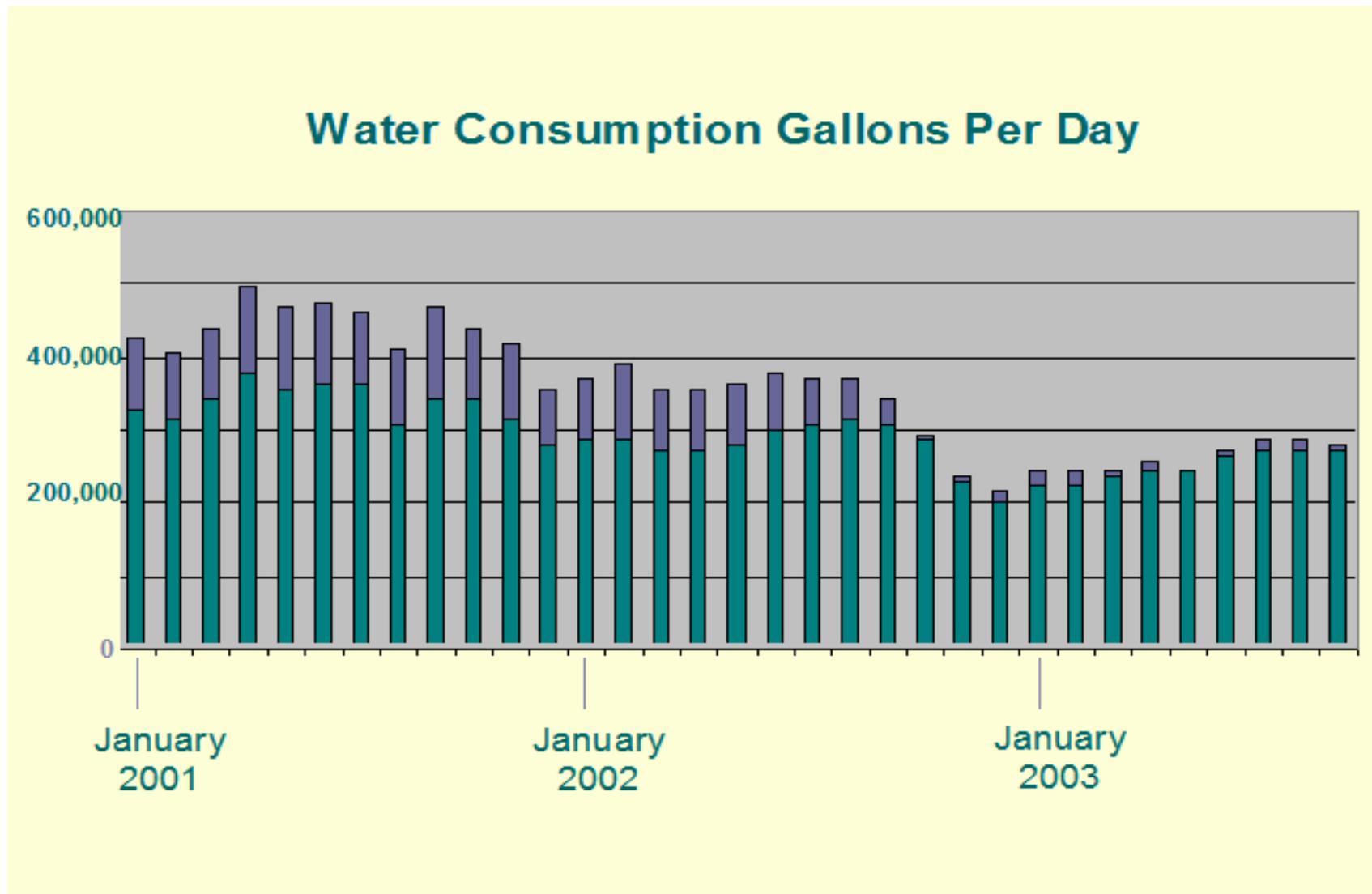
Improve Efficiencies at Sinks...



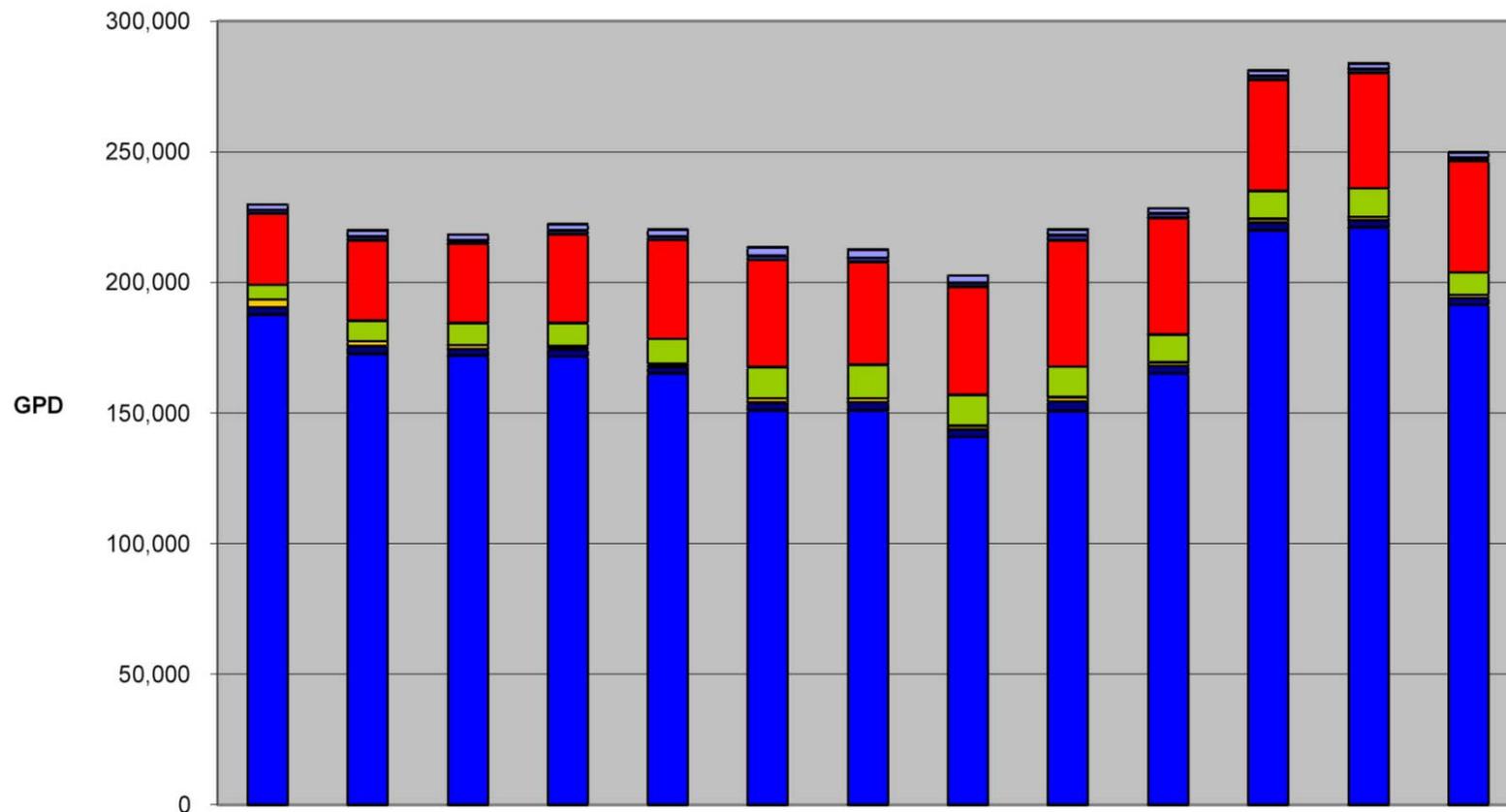
Recycle Opportunity...



Monitoring the Results....



Water Consumption (GPD) - FY2009 / FY 2010



	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
■ Building 1 - All	2,089	2,344	2,211	2,388	2,588	3,213	3,118	2,728	2,071	2,034	1,977	1,999	1,927
■ Building 2 (Café)	1,360	1,428	1,280	1,517	1,366	1,595	1,627	1,603	2,081	1,683	1,389	1,528	1,205
■ Building 3 - All	27,342	30,873	30,430	33,921	37,813	40,902	39,315	41,434	48,324	44,625	42,664	44,182	42,813
■ Building 4 - All	5,633	7,734	8,410	8,842	9,506	12,030	12,842	11,789	11,633	10,714	10,584	10,961	8,554
■ Building 5 - All	2,915	2,047	1,421	1,296	1,220	1,581	1,480	1,430	1,624	1,333	1,596	1,288	1,175
■ Building 6 - All	2,868	2,871	2,576	2,694	2,497	2,925	3,029	2,797	3,776	2,910	2,857	2,754	2,626
■ CUP	187,635	172,586	171,976	171,596	165,125	151,089	151,063	140,832	150,678	165,068	219,931	221,033	191,401

AWARDS and RECOGNITION

"Analog Devices was the most concerned and proactive firm of all the industrial water users assessed under this program...taking the issue of water conservation the most seriously".

***Excerpt from Wilmington Town Water Report**

*



MEMORANDUM

Analog employs several water saving practices for their non-production water use. The majority of rest rooms have been provided with low-flow fixtures and motion-sensing activators, and the remaining rest room fixtures are being upgraded on an ongoing basis. The cafeteria uses disposable plastic utensils to reduce dish washing. Water for landscaping irrigation is obtained from onsite groundwater, which is collected both through building underdrains and from a dedicated well.

Water Use Assessment

Analog has done a remarkable job reducing water consumption in the past five years. Their efforts in this time have reduced water use from over 400,000 gpd to less than 250,000 gpd, saving more than 55 million gallons annually. It should be noted that this reduction in water consumption occurred while maintaining consistent product production levels.

Of all the industrial water users assessed under this program, Analog Devices was the most concerned and proactive firm, taking the issue of water conservation the most seriously.

Potential Improvements

One of the biggest uses of water at the facility is for wafer production rinse water. Because the process requires ultra-pure water, the rinse water must flow continually, even when production has ceased, to prevent stagnation, microbial growth, or even atmospheric gas absorption in the pipes. In recent years, Analog has experimented with the amount of flow required to maintain quality of the rinse water, and as a result has minimized the flow to the extent practically possible. Although there is potentially room for an additional reduction in water use by altering the rinse tank maintenance procedures, this would require a significant capital outlay and additional personnel monitoring requirements. Moreover, the added complications could jeopardize integrated circuit production runs. Since production quality is at the heart of Analog's operations, it is unreasonable to put this at risk. Fortunately, as mentioned above, there has been some movement in the industry away from wet etching into dry etching, using gasses rather than water to rinse the product. This has been happening slowly over the past five years, with more movement in this direction expected.

Ipswich River Watershed Association (IRWA)



Together we can make a difference!

The Ipswich River Watershed Association (IRWA) depends on the support of its members to enable its vision of "Municipal governments, businesses, environmental organizations, and regulatory agencies working cooperatively to effectively manage natural resources."

Analog Devices, Inc. (ADI) is a proud supporter of the IRWA. ADI's corporate sustainability philosophy is consistent with the IRWA vision of "a sustainable regional economy based on a foundation of environmental stewardship". According to ADI chairman and CEO Jerry Fishman, "sustainability plays an integral role in achieving our business goals". Innovation, performance, and excellence are the pillars upon which ADI was founded more than 40 years ago. These same governing principles which have helped drive ADI's business success are also reflected in its approach to environmental sustainability.

ADI understands that preserving and protecting our natural resources, including the Ipswich River Watershed, is key to the sustainability of both business and the environment. ADI recognizes the importance of corporate leadership in this area and provides economic support to help fund the IWRA efforts. Additionally, ADI contributes to the vision of IWRA by implementing and maintaining programs designed to minimize the impacts of its operations on the environment and ensure sustainability of natural resources.

For example, water is an important resource for both business and the community at-large, and must be managed wisely to preserve important resources like Ipswich River Watershed. The Town of Wilmington recently commended ADI for its significant achievements in water conservation and recycling efforts. The ADI Wilmington Manufacturing site reduced its use of water by 75% through reclaiming and reusing process water in facilities support operations. ADI equipment and manufacturing processes are designed to maximize efficiency of energy and water use, and ADI engineers apply their innovation to continually seek and implement opportunities for enhancements.

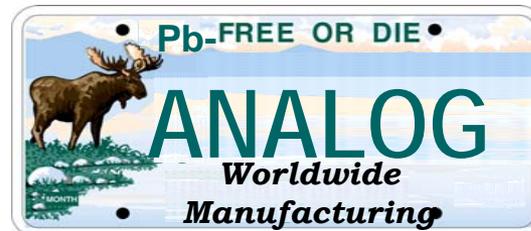
Driven by a commitment to continual improvement, ADI and its employees work diligently toward ongoing sustainability efforts. ADI was the first U.S.-based semiconductor manufacturer to be certified to the international ISO 14001 environmental management system standard. As a result of its ongoing achievements, ADI is a recognized corporate environmental leader, and was named 4th in the most recent Boston Business Journal (BBJ) List of "Greenest Publicly Traded Companies" in the region. ADI was also honored by the U.S. Environmental Protection Agency (EPA) with a merit award for its "outstanding efforts in preserving New England's environment".

ADI encourages other businesses, organizations, and individuals to support the efforts of IWRA so that together we can make a difference and sustain these important natural resources.

Corporate EH&S Policy: Analog Devices, Inc. and its employees are committed to protecting the environment and the health & safety of fellow employees, customers, and the public by endeavoring to adhere to stringent regulatory and industry standards across all our facilities, encouraging pollution prevention, and striving towards continual improvement. Analog seeks to go beyond compliance with regulatory standards in pursuit of excellence in environmental, health and safety management practices, as an integral part of its total quality management system.

EH&S Awards & Recognition

- ◆ EH&S Regulatory & Other Requirements Scheduling & Tracking System ("Do Dates")
- ◆ Water Reduction Programs ("Water Loggers" & "Water Dowsers")
- ◆ Gas/Chemical Inventory Reductions ("Gasaholics Anonymous")
- ◆ Lead-Free Products ("Pb Free or Die")



BENEFITS OF TUR PLAN



- ◆ IMPROVED CHEMICAL USAGE EFFICIENCIES
- ◆ INCREASED COST SAVINGS - **CHEMICALS, FEES, TAXES**
- ◆ REDUCED LIABILITY - ENVIRONMENTAL, SAFETY
- ◆ IMPROVED PUBLIC RELATIONS - CUSTOMERS, COMMUNITY, EMPLOYEES
- ◆ IMPROVED ENVIRONMENT

ADI ranked **4th** on the list of the Area's Greenest Publicly Traded Companies!



| THE LIST |

Area's Greenest Publicly Traded Companies

Ranked by KLD Research & Analytics Inc. *

Rank	Company	KLD environmental score	Market capitalization	Industry	Environmental strengths	Top executive
1	Kadant Inc. 1 Technology Park Drive, Westford 01886 (978) 776-2000 www.kadant.com	62.4	\$381,370,000	Industrials	Manufactures equipment and water management systems used by the paper recycling industry and produces fiber-based granule products from recycled by-products of paper that it sells for agricultural and home-lawn use.	William Rainville Chairman, president, CEO
2	Staples Inc. 500 Staples Drive, Framingham 01702 (508) 253-5000 www.staples.com	58.5	\$15,232,330,000	Consumer retail	Staples was the 18th-largest purchaser of renewable energy nationally and the fourth largest among retail companies. In 2007, it purchased approximately 20 percent of the company's total energy from alternative energy sources.	Ron Sargent Chairman, CEO
3	State Street Corp. 1 Lincoln St., Boston 02111 (617) 786-3000 www.statestreet.com	43	\$28,502,510,000	Financial services	Company launched a Global Environmental Opportunities Strategy to invest in companies that are working to mitigate climate change. Has undertaken initiatives to reduce greenhouse gas emissions that result from its operations.	Ron Logue Chairman, CEO
4	Analog Devices Inc. 1 Technology Way, Norwood 02062 (781) 329-4700 www.analog.com	43	\$9,955,590,000	Information technology	Eliminated the use of greenhouse gases in its fire-protection systems and upgraded its technology in some manufacturing operations to reduce greenhouse gas generation.	Jerald Fishman President, CEO
5	Evergreen Solar Inc. 138 Bartlett St., Marlborough 01752 (508) 357-2221 www.evergreensolar.com	43	\$1,079,690,000	Energy	The company derived all of its revenue from the production and distribution of solar-energy technologies.	Richard Felot Chairman, president, CEO
6	EnerNOC Inc. 75 Federal St., Boston 02110 (617) 224-9900 www.enernoc.com	43	\$303,840,000	Information technology	Provides products that help track and reduce greenhouse gases and has operational programs in place to control its own greenhouse gas emissions.	Tim Healy CEO, chairman
7	Metabolix Inc. 21 Erie St., Cambridge 02139 (617) 492-0505 www.metabolix.com	43	\$235,560,000	Health care	Products include a family of biodegradable biobased plastics and a biomass biorefinery system using switchgrass to produce feedstock for the production of ethanol or other biofuels.	Richard Eno President, CEO
8	Wainwright Bank & Trust Co. 63 Franklin St., Boston 02110 (617) 478-4000 www.wainwrightbank.com	43	\$80,750,000	Financial services	The company runs several LEED-certified branches and offers Green Loans and environmental home equity loans, which encourage the installation of solar energy systems.	Jan Miller President, CEO
9	Raytheon Co. 870 Winter St., Waltham 02451 (781) 522-3000 www.raytheon.com	39.1	\$26,958,040,000	High tech, manufacturing	The company has engaged in various initiatives to improve its energy conservation, joined U.S. EPA's Climate Leaders Program in 2002 and is voluntarily developing a company GHG reduction goal.	William Swanson Chairman, CEO
10	EMC Corp. 176 South St., Hopkinton 01748 (508) 435-1000 www.emc.com	33.3	\$33,070,400,000	Information technology	The company's environmental policy includes a commitment to reduce its energy consumption. The company is also a participant in the EPA's Climate Leaders program.	Joseph Tucci Chairman, president, CEO



 **ANALOG
DEVICES**



The Greenest Big Companies in America

Published September 21, 2009

GREEN RANKINGS THE 2009 LIST

GREEN RANKINGS

OUR EXCLUSIVE ENVIRONMENTAL RANKING
OF AMERICA'S 500 LARGEST CORPORATIONS.



Search for:

SUBMIT

Filter by Indust

▼ RANK	▼ COMPANY	▼ INDUSTRY SECTOR	▼	▼	▼	▼
247.	Analog Devices →	Technology	70.74	46.90	37.21	29.30

THE TOP 5 [VIEW ALL 500 RANKINGS →](#)

- Hewlett-Packard**
"Strong programs to reduce GHG emissions. The first major IT company to report GHG emissions..."
- Dell**
"Ranks 4th among the top U.S. corporate users of renewable energy; headquarters uses 100% renewable..."
- Johnson & Johnson**
"Its commitment to climate change is rare for its peer group and has strong environmental..."
- Intel**
"Largest corporate purchaser of renewable energy in the US, equivalent to 46% of company's US..."
- IBM**
"Has had formal environmental policies since 1971. All new employees undergo environmental awareness training. Ultra..."

Congratulations! The Analog Devices has been selected as a featured facility on the TURA Programs 20th Anniversary Leadership Tour. This series of site visits is intended to celebrate the achievements of many firms that have done excellent toxics use reduction in Massachusetts. Your facility is our choice for highlighting an excellent model of planning, implementation, resource conservation or innovation. The site visit will increase visibility of your company, your leadership, and where appropriate your green products.

Here is what we plan -- working with your firm we will create media releases, and submit them to appropriate journals, newspapers, trade news, and customer venues. This is how great work and great ideas are spread! Here is the conceptual plan for the site visit:

- Working with you, we will set a date and build an invitation list.
- Duration of the event would be about one to two hours.
- The event would include short presentations by an official of the TURA Program, your company leader, and a legislative representative of the Commonwealth.
- A short facility tour (15 to 20 minutes) informs non-industry visitors in a tangible way; if a tour is not possible, we would work with you to craft a suitable substitute.
- A certificate formalizing the recognition will be given to your company.
- Use of the TURI 20th Anniversary Leadership Tour logo is permitted for recognized company materials, websites and products.