

People you trust, delivering results.™

2006  
Safety Health and Environment  
Report





# Our Business

Nalco Company is the leading global provider of integrated water treatment and process improvement services, chemicals and equipment programs for a variety of industrial and institutional customers. Our products and services are used in water treatment applications to prevent corrosion, contamination and the buildup of harmful deposits, or in production processes to enhance process efficiency and improve our customers' end products.

Through our sales, service, research and marketing team of more than 7,000 technically trained professionals, we serve more than 70,000 customer locations. We focus on providing our customers with technologically advanced, engineered solutions and services. These solutions and services enable our customers to improve their business by increasing production yields, lowering manufacturing costs, extending asset life and maintaining environmental standards. We offer the broadest product portfolio in our industry.

## Letter From Our Chairman

I am very pleased to present Nalco's Safety, Health and Environment (SH&E) Report for 2006.

Our continued success and viability as a company depends on delivering excellent SH&E results. For our employees, we must provide a safe working environment with the proper tools, equipment and training for them to accomplish their jobs safely. We must help our customers protect the environment and operate more efficiently, especially by reducing their water and energy use. For the communities in which we operate, we work safely, efficiently and in an environmentally responsible manner, while helping support the needs of our neighbors. For our shareholders, our environmental commitment provides growth opportunities that build shareholder value. And for the world at large, we strive to meet the needs of these various groups in ways that are sustainable.

To help ensure we have the proper SH&E systems in place to operate our manufacturing plants, we are in the process of certifying all our facilities worldwide to either ISO 14001 or RC14001. Both are globally recognized management systems designed to protect the environment and continually improve environmental performance. As of the end of 2006, 27 of our 49 plants worldwide have been certified to these standards through rigorous, third-party evaluations of their operations.

This year's report outlines some of the many ways we help our customers save water and energy and protect the environment. Increasing global demands on finite water and energy resources makes the programs and services we provide ever more important. This report also charts our performance on a variety of SH&E measurements and details how we supported our communities in 2006.

In the spirit of Responsible Care®, the global chemistry initiative for continuous SH&E improvement, I encourage you to review our actions over the past year. I believe you will find that it is another demonstration of our motto, that Nalco is: "People you trust, delivering results.™"

Sincerely,



Dr. William H. Joyce  
Chairman and  
Chief Executive Officer





## Safety, Health, Environmental and Sustainability Principles

Nalco Company manages its global operations with concern for the health and safety of individuals, the environment and with a commitment to global sustainable development. We operate by the following principles:

- Conduct business in a safe, secure and environmentally sound manner; consistent with Responsible Care<sup>®</sup>, the chemical industry's commitment to ensuring a chemical product's safe evolution from concept through customer use, to disposal, recycle or reuse.
- Develop environmentally sustainable and safe solutions through our products, processes and technology that bring value and confidence to our customers, employees, communities and our business.
- Comply with applicable laws and regulations and apply responsible standards where laws and regulations do not exist.
- Operate our facilities in a resource-efficient manner that protects the environment and the health and safety of our employees, contractors and the communities in which we operate.
- Strive for continuous improvement in the area of safety, health and the protection of the environment with the goal of zero injuries, illnesses, incidents, waste generation and emissions.
- Train all employees to work safely, preventing injuries to themselves and others, avoiding damage to property and protecting the public interest.
- Ensure procedures are in place to implement these principles and communicate openly about environment, health and safety issues.
- Support of these principles by all levels of management and all employees.

## Reporting on Our Performance

Our Safety, Health, Environmental and Sustainability Principles include the pledge to “Strive for continuous improvement in the area of safety, health and protection of the environment with the goal of zero injuries, illnesses, incidents, waste generation and emissions.” The following pages report our progress toward that goal.

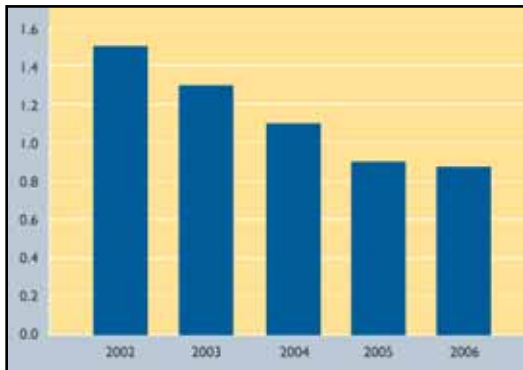
### Safety

#### Employee Safety

The Total Recordable Injury Rate (TRIR) is the U.S. Occupational Safety and Health Administration standard for worker safety. It measures the number of employees with work-related illnesses and injuries per 100 full-time workers per year. We have adopted this safety measurement globally and it is also a key performance measurement of the American Chemistry Council (ACC), our major U.S. trade association. The ACC reports that employees of its member companies are four times safer than the U.S. manufacturing sector as a whole.

Our corporate target is to improve our TRIR to less than 0.7, the standard for the top 25 percent of ACC member companies. In 2006, we recorded a TRIR of 0.88, a 3 percent reduction from the previous year. Since 2002, we have reduced our TRIR by 41 percent.

Global Total Recordable Injury Rate  
(per 100 full-time workers per year)

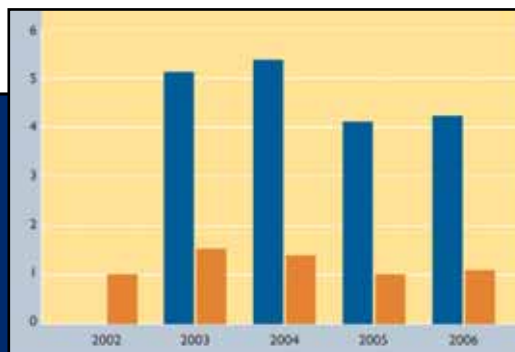


#### Driver Safety

With thousands of our sales engineers constantly traveling between customer sites, we have identified driving accidents as the single greatest danger faced by our employees. To evaluate our progress on ensuring safe driving, we globally track the Total Preventable Accident and Total Vehicle Accident rates as key performance indicators. We focus on driving defensively to prevent accidents, but also believe measuring all vehicle accidents, preventable or not, helps us better protect our employees.

Our Preventable Vehicle Accident Rate rose slightly from 1.0 to 1.1 in 2006, slightly more than one accident per one million miles driven. While we failed to achieve our goal of reducing Total Vehicle Accidents by 10 percent in 2006, we are holding close to our gains in driver safety in recent years with slightly more than 4 driving accidents per million miles driven. In North America, an improved driver safety policy includes driver performance reviews based on a point system that tracks accumulated traffic violations. Pilot programs, in the Americas, use onboard monitoring devices that report on driver performance such as speeding.

Global Total and Preventable  
Vehicle Accident Rates  
(per million miles driven)



Not all emergency drills are held at Nalco facilities. This exercise in the United Kingdom involved our Weavergate plant personnel in response to a simulated traffic accident involving a Nalco bulk tanker and another truck.

### Emergency Preparedness

Preventing an emergency is always our top priority, but the reality is that we must always prepare for the possibility of an incident, no matter how unlikely. On a regular basis, Nalco plants conduct training for our own emergency response personnel. We also work closely with local fire and police departments and other emergency responders in developing joint plans for any emergency, whether it involves a Nalco facility or the community itself.

Our Ellwood City plant in the United States, for example, has been conducting mock disaster drills annually for the past 20 years with the local hospital, fire and police. The drill is part of the 40 hours of fire-fighting and hazardous materials training our emergency response team performs each year. Several Nalco emergency employees also put that training to work as volunteers for local fire departments.

In all our emergency training and drills the goals are the same: to identify opportunities to improve our response and develop understanding and a sense of teamwork with local emergency officials.

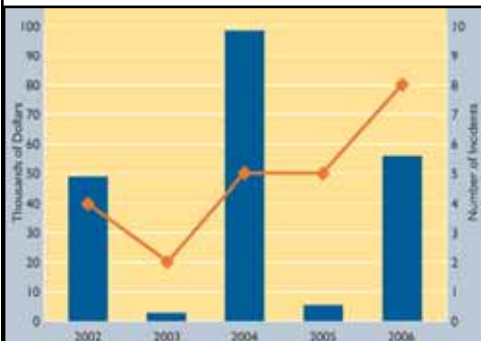
## Environment

### Fines and Penalties

We track both the number and amount paid (in US dollars) for safety, health and environmental fines and penalties. This figure also includes penalties related to product registration violations or transportation incidents. Historically, Nalco has had a very low incidence of these fines and penalties.

Global Regulatory Fines and Penalties

■ Total Paid (US\$)  
 ○ Number of Incidents



Note: 2002 data is revised from the 2005 SH&E Report to add in a fine paid in that year which was missed during data collection for the report.

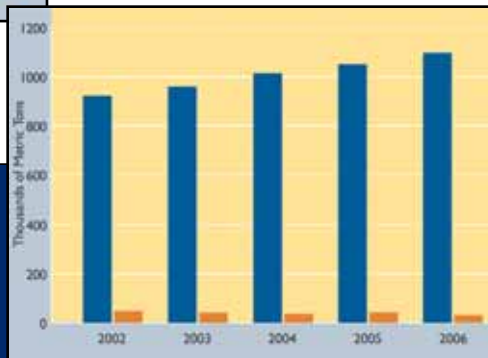
### Waste Index

The Global Waste Index compares the total amount of products we manufacture to the amount of waste generated by our production processes. It measures both our manufacturing efficiency and our ability to reduce waste. The success of our waste reduction efforts is demonstrated by a 14.2 percent decline in waste volume generated during 2006, while our manufacturing production volume increased 5.2 percent. A program to reuse the rinse water from various production processes was expanded from the United States to plants in Europe, Latin America and Asia.

Since 2002, our waste generation volume has been cut 29.4 percent, while our production volume has increased 16.9 percent over the same period.

Global Waste Index

■ Product Produced  
 ■ Waste Generated



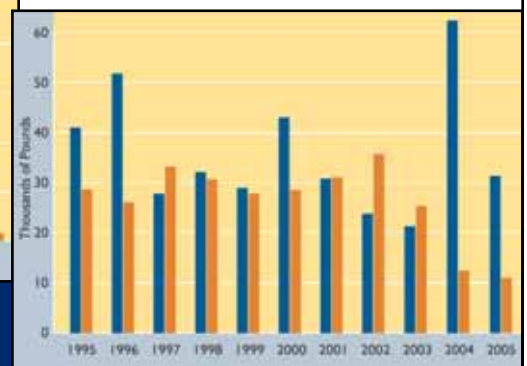
### Toxics Release Inventory Emissions

One of the best-known environmental measurements in the world is the U.S. Environmental Protection Agency's Toxics Release Inventory (TRI). The TRI reports chemical releases and other waste management activities for nearly 650 chemicals and chemical categories at facilities across the United States. The inventory was established in 1986 and expanded in 1990. The most recent information available covers emissions through calendar year 2005.

Our reported on-site emissions to air in 2005 are back in line with our historical data. 2004 was an anomaly due to an incorrect calculation method. We have established a global process to standardize our method for calculating, reviewing and reporting this data to help improve accuracy. On-site water emissions reported under TRI continued to decrease. They were down 10.7 percent in 2005 and have declined more than 60 percent over the past five years.

USEPA Toxics Release Inventory

■ Releases to Air  
 ■ Releases to Water



## Sustainability

Reducing greenhouse gas emissions and increasing energy efficiency are important sustainable development targets. The American Chemistry Council has selected these two areas as key performance indicators for Nalco and all of its member companies that have committed themselves to Responsible Care®.

### Greenhouse Gases

We and all other ACC members have committed to reduce the intensity of our greenhouse gas emissions (the ratio of greenhouse gases to production) more than 18 percent by 2012 (from a 1990 baseline).

Our goal is to also reduce our total greenhouse gas emissions. In 2006 those emissions rose by 2.2 percent, while our production increased even faster, by 5.2 percent. Over the past 5 years our greenhouse emissions have declined 1.3 percent, while production has increased nearly 17 percent.

During 2006, the installation of a new boiler at our plant in Germany and boiler equipment changes at two large plants in the United States helped reduce fuel consumption. Those improvements and others being planned will further reduce fuel use in 2007 and help limit greenhouse gas emissions from those plants.

### Energy Efficiency

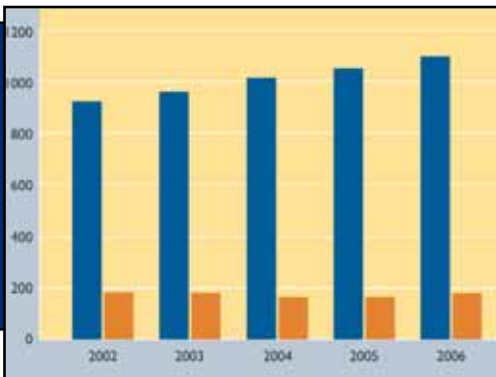
We measure our energy efficiency by comparing our manufacturing production to the amount of energy we consume in making our products (the energy used is a combination of electricity, natural gas, distillate oil and liquid propane gas).

While our energy use increased slightly, 0.5 percent in 2006, our energy efficiency also increased since our production rose even more, 5.2 percent. Since 2002, our production has increased by nearly 17 percent while energy consumption has declined 3.2 percent. Product mix tends to affect our overall energy usage despite our efforts to be more efficient, since customer demand at times is focused on products that require more energy-intensive production processes.



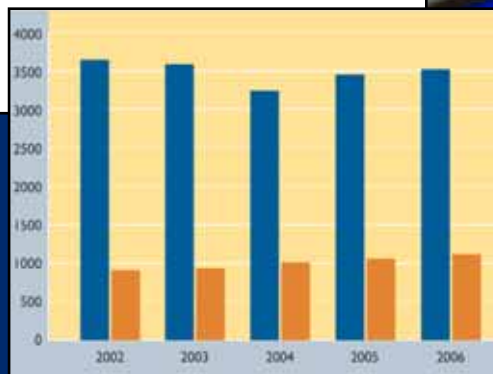
### Global Greenhouse Gas Emissions

■ Product Produced (thousands of metric tons)  
 ■ Greenhouse Gases (thousands of metric tons)



### Global Energy Efficiency

■ Energy Consumed (billions of kilo joules)  
 ■ Product Produced (thousands of metric tons)



# Nalco: The Connection Between Water and Energy



Since 1928, when we began treating steam locomotives and industrial boilers, Nalco has been combining expertise in water and energy to help our customers efficiently use both resources, saving them money and improving the environment. Over the past eight decades, we have transferred that experience with boiler water to water used in cooling systems, oil and gas production, pulp and papermaking and virtually any industrial process, plant or large building.

Wherever water is used, several dynamic problems are created. Dissolved minerals can be deposited as scale on water-bearing surfaces. Untreated water is naturally corrosive and can attack any metal it contacts. Under the right conditions, especially with heat and contaminants, water is the perfect medium for microbiological growth. All three problems are magnified when they occur in industrial systems.

Heat generation and removal are important aspects of almost every industry. Treating water in heating and cooling systems gives Nalco an important role to play in the efficient use of water and energy.

## **Boiler Water**

Boilers absorb heat energy and transfer it through numerous tubes to water to make

steam. NexGuard® boiler technology combines our best internal treatment chemistries with TRASAR® diagnostic monitoring, feed and control equipment. It eliminates hardness, reduces corrosion and provides more system information than any other program. We estimate the 6,500 customers globally using NexGuard programs saved energy equivalent to more than 96 billion cubic feet of natural gas in 2006, meaning nearly 4.4 million metric tons of greenhouse gas emissions avoided. We are working today on next-generation technology that delivers even greater benefits.

## **Cooling Water**

Billions of gallons of water are used every day in cooling systems. Nalco's 3D TRASAR® program brings together our best cooling water treatment with monitoring and control equipment to manage scale, corrosion and microbiological treatments at the same time, minimizing chemical and water usage. We estimate that nearly 2,500 customer locations in just the United States and Canada saved 21.4 billion gallons of water last year using 3D TRASAR technology. Even greater water savings are expected as we further penetrate the market with this unique technology.

We provide a variety of solutions for many industries that face challenges on how best to use water and energy.

## **Power Generation**

Thermal power generation is the single largest water user in the United States. We are working with Argonne National Laboratory to develop new ways to reduce, reuse and recover power plant cooling water. Together we will develop the technology, knowledge and strategies to optimize water use and lower treatment costs with fewer environmental impacts. Our goal is to reduce power plant fresh-water withdrawals by 5 billion to 10 billion gallons per day.

## **Food and Beverage/Pharmaceutical**

Total-site water conservation for food and beverage and pharmaceutical customers is available through our partnership with JohnsonDiversey. An Aquacheck™ audit is a customized review of plant-wide water use that ranks that use by volume and cost. Comparing this audit to industry best practices identifies opportunities to cut cost and reduce water and energy use. A major pharmaceutical site audit identified total water, wastewater and energy savings in excess of \$1 million a year. At a food and beverage plant, potential water savings totaled more than 19 million gallons a year.



### **Building Management**

We have expanded our offering to institutional and industrial customers through Building Environment Solutions. This indoor air quality program provides our unique COIL-FLO® HVAC coil cleaning program and high-performance filters, which significantly improve the energy performance of our customers. In 2006, the United States Environmental Protection Agency identified Nalco as an ENERGY STAR® Service and Product Provider for supplying energy-efficient products and services.

### **Papermaking**

Papermaking is a water- and energy-intensive process. Our SMART Solutions® for Efficiency program helps papermakers better manage the many inputs to their process, especially water and energy. Nalco programs help a mill's boilers and cooling towers operate more efficiently, but we also help increase efficiency on the paper machine itself.

Our PARETO™ wet-end optimization technology, introduced in 2006, helps papermakers balance the hydrodynamics of their system with chemistry and water management to allow the paper machine to run faster and with fewer breaks. It allows the replacement of cold freshwater chemical dilution with already-heated

process water, reducing both freshwater demand and the energy to heat the water. We estimate using PARETO technology will save a combined total of more than 330 million gallons of fresh water and 163 billion BTUs of energy in 2007 for the first customers using this new technology.

### **Other Environmental Innovations**

Nalco programs also help customers reduce environmental impacts in other ways.

In oilfields, methanol and ethylene glycol are often used to inhibit the formation of hydrates—ice-like masses of water and natural gas that form in flow lines and equipment. Nalco researchers used our water and energy know-how to identify a safer alternative. Our FREEFLOW® low dosage hydrate inhibitors use a substantially lower dose rate for treatment, so customers use less chemical, which reduces the amount of methanol and ethylene glycol that must be handled and removed downstream. In the past five years, FREEFLOW hydrate inhibitors have replaced 250 million pounds of methanol and ethylene glycol.

Traditional oil-based emulsion polymers, used for water treatment and as a process aid in many industries, introduce oil and

surfactant into the environment. Nalco developed ULTIMER® polymers that are manufactured in water-based salt solutions, eliminating the release of five million pounds of oil into the environment annually.

Chlorine- and bromine-based products are widely used to prevent microbiological fouling. However, un-stabilized chlorine-based biocides are hazardous and difficult to handle. Un-stabilized bromine-based compounds tend to degrade quickly, making them less effective. Our stabilized halogen programs provide improved microbiological control while reducing overall halogen use. The STA•BR•EX® microbiological program, for example, mimics the naturally occurring stabilized bromine that white blood cells use to treat infection. It is less toxic to aquatic wildlife, safer for our customers' employees and generates less byproduct than un-stabilized halogen treatments.

For nearly 80 years Nalco innovations and Nalco people have successfully helped customers save water and energy and operate cleaner and better. We will continue to build on that success in 2007 and the years ahead.

## 2006 Safety Milestones

**Calamba Plant in Philippines** has been accident-free since 1990.  
**Carson Plant in the U.S.** has been accident-free since October 2000.  
**Citeureup Plant in Indonesia** has been accident-free since April 2001.  
**Ellwood City Plant in the U.S.** has been accident-free since February 2002.  
**Evansville Plant in the U.S.** achieved 24 years without a recordable injury.  
**Fawley Plant in the U.K.** has been accident-free since 2005.  
**Freeport Plant in the U.S.** has been accident-free since 1990.  
**Garyville Plant in the U.S.** achieved 1 million hours worked without a recordable injury.  
**Green Tree Plant in the U.S.** achieved 26 years without a lost-time accident.  
**Hu Kou Plant in Taiwan** has been accident-free since 1978.  
**Jackson Plant in the U.S.** has been accident-free since 2002.  
**Konnagar Plant in India** has been accident-free since March 1990.  
**Mecas Plant in Malaysia** has been accident-free since 1996.  
**Nisku Plant in Canada** has not had a reportable incident since it opened in 1993.  
**Osan Plant in Korea** has been accident-free since 2002.  
**Port Allen Plant in the U.S.** has been accident-free since 1999.  
**Rayong Plant in Thailand** has been accident-free since 1999.  
**Singapore Plant** has been accident-free since 1992.  
**Sugar Land Pilot Plant in the U.S.** has not had a lost-time accident since it began operations more than 27 years ago.  
**Suzano Plant in Brazil** has not had a lost-time accident since November 2001.  
**Suzhou Plant in China** achieved 10 years without a recordable injury.  
**Texarkana Plant in the U.S.** achieved five years without a recordable injury.  
**Vancouver Plant in the U.S.** completed five years without a lost-time accident.  
**Weavergate Plant in the U.K.** has been accident-free since 2005.  
**Yongsan Plant in Korea** has been accident-free since 2001.

## 2006 Awards

**Biebesheim Plant in Germany** was again awarded the Okoprofit environment award from the region of Starkenburg.  
**Burlington Plant in Canada** achieved ISO 14001 and OHSAS 18001 certification.  
**Chagrin Falls Plant in the U.S.** achieved RCI4001 certification.  
**Clearing Plant in the U.S.** achieved RCI4001 certification.  
**Crolles Plant in France** achieved recertification for ISO 14001.  
**Ellwood City Plant in the U.S.** achieved RCI4001 certification.  
**Fawley Plant in the U.K.** received a Gold Award from the Royal Society for the Prevention of Accidents for the sixth consecutive year.  
**Hu Kou plant in Taiwan** won a Safety & Health Exemplification Award from the Industrial Development Bureau.  
**Mecas Plant in Malaysia** achieved ISO 14001 and OHSAS 18001 certification.  
**Nalco** received a Safe Handling Award from the Canadian National Railway and a Best Safety Performer Award from the Province of Alberta.  
**Nalco Canada** won the Canadian Chemical Producers' Responsible Care® Award for Improvement in Safety.  
**Rayong Plant in Thailand** achieved OHSAS 18001 certification.  
**Singapore Plant** won the Singapore Chemical Industry Council's Responsible Care® Award for Employee Health and Safety and achieved OHSAS 18001 certification.  
**Sugar Land Plant in the U.S.** achieved RCI4001 certification.  
**Suzhou Plant in China** achieved OHSAS 18001 certification.  
**Tesjoki Plant in Finland** achieved ISO 14001 certification.  
**Tulsa Plant in the U.S.** achieved RCI4001 certification.  
**Vancouver Plant in the U.S.** achieved RCI4001 certification.  
**Wasquehal Plant in France** achieved ISO 14001 certification.  
**Weavergate Plant in the U.K.** achieved ISO 14001 certification.

## Helping in our Communities

In many ways and in many countries Nalco and its people had a positive impact in 2006.

Employees in Naperville and Clearing in Illinois and in Sugar Land in Texas participated in the Juvenile Diabetes Research Foundation's annual Walk to Cure Diabetes. Nalco walkers and their families, more than 140 people in all, collected more than \$48,000. Dr. Robert Wetegrove, a Naperville researcher, raised more than \$3,900 alone. A matching \$25,000 donation from the Nalco Foundation meant a total contribution to fight diabetes in excess of \$73,000.

Our Science Is Fun program celebrated its 15th anniversary. Science is Fun is an education outreach program originally developed at our Sugar Land research center and introduced to our Naperville office in 1991. Under the program, volunteers visit third-grade classrooms with 12 or more experiments, including making green slime, showing how superabsorbent polymers keep a diaper dry, and demonstrating the water purification process. To date, Science is Fun has been presented to more than 150,000 students in hundreds of schools.

"Since we rely so heavily on the efforts of our researchers, it is only natural that we would help increase the interest of tomorrow's scientists," says Nalco Chief Operating Officer Bill Roe. "I like to think that our Science is Fun presentations might have influenced some of the recent college graduates who saw it in the third grade."

Clean water and basic sanitation are essentials of life. In recognition of that fact, the Nalco Foundation donated \$50,000 to Water For People, an international development agency that focuses on safe drinking water and preventing water- or sanitation-related illnesses.

The Foundation's grant helped fund programs in five countries:

- Installation of 20 arsenic removal units in India used to protect thousands of people from poison-laden water
- Construction of latrines in Bolivia, where only 68 percent of the rural population has access to sanitary facilities
- Construction of numerous shallow wells in Malawi, providing convenient access to safe drinking water for the women who haul it
- Running water and latrines in schools for children in 14 Guatemalan villages
- Community water and sanitation systems in numerous communities across Honduras

Nalco has long been a strong supporter of the United Way, which mobilizes the caring power of communities to unite in raising funds for a variety of local programs that help children and families, encourage self-sufficiency and improve access to health care. Nalco employees in the United States and Canada more than doubled their donations from the previous year, raising more than \$280,000 in contributions. The Nalco Foundation made a matching grant of almost \$255,000 for a total gift of more than half a million dollars. Employees at our plant in Garyville, Louisiana, with the memories of the ravages Hurricane Katrina still vivid, were strong supporters as many commented they remembered first hand what United Way organizations had done to respond to needs in their communities.

For more on some of the programs Nalco and its people supported in 2006 visit these Web sites:

Water For People: [www.waterforpeople.org](http://www.waterforpeople.org)

Juvenile Diabetes Research Foundation: [www.jdf.org](http://www.jdf.org)

United Way of America: [www.unitedway.org](http://www.unitedway.org)

United Way of Canada: [www.unitedway.ca](http://www.unitedway.ca)



*The Nalco Foundation supports Water For People, an international development organization that seeks to ensure safe water supplies and basic sanitation in areas of the world where these basic needs are not being met.*



*Sam Ihli was one of a group of Nalco employees who spent a week in November helping with the continuing cleanup in New Orleans from the ravages of Hurricane Katrina. Employees Marvita Fleming, Brian Jenkins, Dan Gorman, John Cygan, Mary Jane Anderson and Ed Kuenz joined Sam in gutting five damaged homes to begin the process of rebuilding.*

## Safety, Health and Environmental Web links:

American Chemistry Council's Responsible Care®  
[www.responsiblecare-us.com](http://www.responsiblecare-us.com)

Canadian Centre of Occupational Health & Safety (CCOHS)  
[www.ccohs.ca](http://www.ccohs.ca)

Canadian Chemical Producers Association Responsible Care®  
[www.ccpa.ca/responsiblecare](http://www.ccpa.ca/responsiblecare)

Environment Congress for Asia and the Pacific  
[www.ecoasia.org](http://www.ecoasia.org)

Environmental Management Secretariat for Latin America and the Caribbean  
[www.ems-sema.org](http://www.ems-sema.org)

European Chemical Industry Council  
[www.cefic.org](http://www.cefic.org)

European Chemical Bureau  
[ecb.jrc.it](http://ecb.jrc.it)

European Environment Agency  
[eea.eu.int](http://eea.eu.int)

Global Chemical Industry's Responsible Care®  
[www.responsiblecare.org](http://www.responsiblecare.org)

National Institute for Occupational Safety and Health (NIOSH)  
[www.cdc.gov/niosh](http://www.cdc.gov/niosh)

United States Centers for Disease Control and Prevention  
[www.cdc.gov](http://www.cdc.gov)

United States Environmental Protection Agency  
[www.epa.gov](http://www.epa.gov)

United States Occupational Safety and Health Administration  
[www.osha.gov](http://www.osha.gov)

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