



PRACTICAL APPROACHES

TO EH&S EXCELLENCE

## About Con Edison

Consolidated Edison Company of New York, Inc., a subsidiary of Consolidated Edison, Inc., provides electricity to more than three million customers in New York City and Westchester County. It distributes natural gas to more than one million customers in Manhattan, the Bronx, northern Queens, and Westchester County. Its Steam Business Unit generates and distributes steam to about 1,800 customers in Manhattan from the Battery to 96th Street.

Con Edison's service area, situated in the Hudson River marine environment, covers 660 square miles and has a population of more than eight million. The physical plant Con Edison operates comprises six steam-generating facilities, more than 125,000 miles of electric cable and wires, more than 4,000 miles of gas mains, and 105 miles of steam mains and services. Con Edison provides the most reliable electric service in North America.

Questions or comments about Con Edison's EH&S programs can be sent to:

Con Edison  
Environment, Health and Safety  
Room 802  
4 Irving Place  
New York, NY 10003

This report is available on our Web site at [www.conEd.com](http://www.conEd.com).

# Table of Contents



Executive Letter	3
Management Commitment	5
Evaluating Our 2002 Environmental Performance	9
Evaluating Our 2002 Safety Performance	15
Practices in Excellence	17
Emergency Management	21
EH&S Excellence and the Community	23
Celebrating Success	27



Eugene R. McGrath



Randolph S. Price

Con Edison's overall record in the area of environmental, health and safety performance has continued to improve in each of the six years since the company published its first EH&S annual report. This record of continuing improvement was sustained in 2002 when we achieved the best safety record in our history and made significant progress toward further integration of our environmental management tools into daily operations.

We achieved the right to call Con Edison an "ISO 14001 company" when our environmental management system fulfilled the requirements of the International Organization for Standardization. We completed and filed our first CERES report, which is now available on our Web site at [www.conEd.com](http://www.conEd.com), meeting one of the obligations that came when we endorsed the principles of the Coalition for Environmentally Responsible Economies (CERES). These are all marks of our success and are the result of the dedication of the individual men and women of Con Edison as we continue our journey toward EH&S excellence.

Regular training and better equipment support Con Edison people in their efforts. We continued to encourage teamwork and worked to further strengthen the relationship between union and management.

The management system we developed and implemented to conduct our business in the areas of environment, health and safety made the company stronger and more efficient than ever before.

In 2002, we established a strategic plan for achieving EH&S excellence. Our mission is to "strive for excellence in environmental, health and safety performance and become a leader in protecting the environment, the health and safety of our employees and the public." Our key objectives in support of this mission are to:

- Ensure EH&S Compliance
- Improve Safety Performance
- Enhance Relationship With Stakeholders
- Integrate EH&S Into "The Way We Work" at Con Edison
- Identify and Reduce Significant EH&S Risk Potential
- Promote the Wise and Effective Use of Natural Resources

Our commitment to excellence remains an integral part of the way we work at Con Edison. Along with the safe and reliable delivery of our energy services, safeguarding our employees, the public, and the environment are priorities reinforced each day by our policies, procedures, and practices.



Eugene R. McGrath  
Chairman and CEO



Randolph S. Price  
Vice President, EH&S





## MANAGEMENT COMMITMENT: Con Edison's EH&S Strategic Plan

Con Edison's comprehensive Environment, Health and Safety policy is the foundation of our management commitment to excellence. A new EH&S strategic plan adopted in 2002 provides the framework to implement the policy. The strategic plan, with six key objectives and their associated strategic goals, defines our actions as we pursue EH&S excellence. The six key objectives and their associated goals are:

**Ensure EH&S compliance** by sustaining our existing management system activities and by improving work processes and practices.

**Improve our safety performance** by strengthening our safety management system to foster a positive safety culture.

**Enhance our relationship with stakeholders** by working to improve communications and establishing relationships of collaboration and trust.

**Promote the wise and effective use of natural resources** by integrating those measures into our business planning and operations that can produce

### THESE KEY OBJECTIVES KEEP US FOCUSED ON OUR GOALS AND RESPONSIBILITIES.

**Integrate EH&S into "The Way We Work."** This companywide effort observes six principles: plan the work and work the plan, seek and accept responsibility, communicate openly, work in teams, improve continuously, and celebrate success.

**Identify and reduce significant EH&S risk potential** by incorporating risk management as a tool in the business decision-making process. This objective emphasizes the prediction and prevention of risk.

demonstrable reduction in our consumption of resources, including the identification and implementation of sustainable reductions.

In support of these strategic goals, and in alignment with our key objectives, the company sets specific annual targets that we use to measure our progress.

Focusing on these key objectives will keep us on track to achieve excellence.

### Con Edison's Corporate Environment, Health and Safety Policy

Consolidated Edison, Inc., is committed to continuing to strive for excellence in its environmental, health, and safety performance, while complying with all laws and regulations that apply to company operations. Business and operational decisions throughout the company incorporate environmental, health, and safety aspects into the decision-making process. All employees of Consolidated Edison, Inc., are held accountable for knowing the corporate environmental, health, and safety requirements that apply to their assigned responsibilities, and for using the information in planning and completing their work.

In support of this policy, Consolidated Edison, Inc.:

- Maintains procedures and provides training to meet the corporation's environmental, health, and safety standards;
- Openly communicates environmental, health, and safety issues with employees, customers, and stakeholders;
- Promotes effective environmental, health, and safety program management through auditing, monitoring, reviewing, and corrective action efforts;
- Advances the identification, analysis, and management of environmental, health, and safety risks to foster prediction and prevention efforts;
- Recognizes and encourages outstanding environmental, health, and safety performance;
- Strives to reduce waste and prevent pollution through recycling and effective work-planning programs and promotes strategies for energy conservation;
- Maintains systems, procedures, and personnel to prevent incidents and, when necessary, to respond to emergencies;
- Promotes research to develop new and better technologies for environmental, health, and safety management; and
- Establishes metrics to track progress.



### Drought Response

When New York City and Westchester County declared a drought emergency for the water systems in our service territory in April 2002, Con Edison enforced mandatory water-use restrictions at our facilities and required that our vendors and contractors comply with the rules as well.

Facilities were surveyed and inspected, and repairs made to piping and tanks where improvements could be made. Water-saving diaphragms and showerheads went in where needed, and "Save Water" signs reminded all employees about the drought emergency. Auxiliary metering was installed at steam plants and new carbon filters and instrumentation were added.

When restrictions were eased, Con Edison's cost/benefit analysis determined that the company had saved more than 300 million gallons of water and netted savings of more than \$1 million. Many of these measures will continue into the future.



**Patrick Williams, maintenance manager, and Stuart Nachmias, project manager, discuss water flow characteristics at Waterside Steam Station.**

### CERES

Con Edison made a commitment in 2000 to endorse the ten principles of the Coalition for Environmentally Responsible Economies (CERES). In 2002, Con Edison prepared its first annual CERES report, describing in detail our environmental programs as well as our environmental performance over the past several years. This first report establishes a baseline for comparison with future performance and noteworthy activities. The CERES report is available on the Con Edison Web site [www.conEd.com](http://www.conEd.com).

#### The CERES Principles

- Protection of the biosphere
- Sustainable use of natural resources
- Reduction and disposal of wastes
- Energy conservation
- Risk reduction
- Safe products and services
- Environmental restoration
- Informing the public
- Management commitment
- Audits and reports

### Con Edison's Conference for Environmental Excellence

In October 2002, the company hosted a high-level conference of Fortune 500 firms with operations in the tri-state area. Representatives of 16 manufacturing, chemical, energy, and pharmaceutical companies met at Con Edison's Learning Center for a day-long exchange on "Commitment to Excellence: Practical Approaches to Environmental Leadership." Top environmental managers from Con Edison and guests explored the concept of environmental excellence and ways to achieve it.

James L. Connaughton, chairman of the President's Council on Environmental Quality, was the keynote speaker. He discussed the major motivating principles of the council's environmental strategies, stressing the importance of improving the curricula of traditional business and management courses to include environmental decision-making issues and real-world examples.

Carl Frankel, author and senior columnist from *green@work* magazine, also addressed the conference. Events included sessions and discussion panels on such topics as environmental strategic planning, and facilitating open communication on key corporate environmental issues.

In closing remarks, Con Edison's EH&S Vice President Randolph S. Price said, "We hope that what we have learned here today will enrich our perspectives as we strive to meet our environmental goals."





**Randolph S. Price, Con Edison's vice president of EH&S; James L. Connaughton (center), chairman of the President's Council on Environmental Quality; and Kevin Burke, president and COO, Consolidated Edison Company of New York, Inc., were principal speakers at the company's October conference, "Commitment to Excellence: Practical Approaches to Environmental Leadership."**

“

We...believe that companies such as ours should collaborate to make our world environmentally sound. It is our hope that bringing new insights and success stories to the table will help us meet the challenges of protecting and improving the environment with the same commitment that we apply to managing a large corporation.

”

Kevin Burke  
*President and Chief Operating Officer  
Consolidated Edison Company of New York, Inc.*



## EVALUATING OUR 2002 ENVIRONMENTAL PERFORMANCE

In 2002, to reinforce the company's commitment to environmental excellence, the Environmental Management System — the systems and organizational tools that support our performance — was formally communicated to all employees through a companywide educational effort. A video detailing the system was seen by more than 99 percent of all employees.

Open communication continues to be the foundation of continuous performance improvement. Each month, Con Edison generates a performance report that clearly summarizes monthly and cumulative data. This report, which can be accessed by all employees, displays quantitative data in text and graphics. A graphic depiction of our performance at the beginning of the report shows at a glance the status of performance indicators compared to goals. This comprehensive recording and tracking of significant information makes the report a highly effective management tool for evaluating trends in performance.

**Selected Performance Indicators**  
(See charts, page 13).

### SPDES Exceedances

New York State imposes limits on the discharge of wastewater and storm water to rivers, streams, or groundwater. Under the provisions of the federal Clean Water Act and the state

Environmental Conservation Law, the state issues State Pollutant Discharge Elimination System (SPDES) permits and requires monitoring of discharges to determine compli-

ers and other combustion equipment monitor stack emissions and submit quarterly reports on opacity. Con Edison maintains a computerized Continuous Emission

### OPEN COMMUNICATION CONTINUES TO BE THE FOUNDATION OF CONTINUOUS PERFORMANCE IMPROVEMENT.

ance. In 2002, Con Edison had 18 facilities with active SPDES permits, only 14 of which had any discharges to waters of the state. There were a total of two discharges in excess of the permitted amount in 2002, compared with three in 2001.

*Performance improvement activities:* Con Edison instituted a "heads up" program in 2002 at its steam generating units to predict and prevent discharges in excess of the permitted amount. Wastewater is regularly sampled and analyzed for oil, grease, and total suspended solids. When a result is elevated to a pre-determined threshold, a "heads up" notification goes out to operating personnel at the appropriate steam unit. The sample undergoes further analysis to pinpoint the source of the elevated value. In 2002, more than 2,500 SPDES samples were taken. There were 15 "heads up" events and no excess discharges at the steam units.

### State-Regulated Opacity Exceedances

The New York State Department of Environmental Conservation (NYSDEC) requires that facilities with boil-

Monitoring System (CEMS) on its plant stacks. There were two instances in 2002 when opacity exceeded NYSDEC regulations, compared with four in 2001.

*Performance improvement activities:* In an effort to continuously reduce opacity, last year the company invested approximately \$1 million in burner management equipment.

### Dielectric Fluid Leakage to the Environment

In 2002, a total of 73,479 gallons of dielectric fluid was released from the oil-cooled transmission feeder system, more than three-fourths of which can be attributed to third-party events, such as water main breaks, contractor excavation work, and stray current from other utility services. The remainder can be attributed to corrosion, mechanical failures, and fault currents. It should be noted that most of the fluid is subsequently recovered during clean-up operations. During 2001, the total amount of dielectric fluid released to the environment was 47,253 gallons.

*Performance improvement activities:* Leak detection and leak warning systems, such as an on-line system using sensors installed along the feeder sys-



tem, provide real time monitoring to help locate leaks as small as one gallon per hour. A tracer gas, perfluorocarbon (PFT), injected into the dielectric fluid of the buried feeder cable system and detected using sensors in mobile laboratory vans, continues to be used to locate leaks and minimize the amount of dielectric fluid released to the environment.

For the past several years, a two-mile portion of the feeder system, which had been a major source of feeder leaks from corrosion, has been undergoing repair. This consists of excavating the feeder pipe, removing the old coating, repairing as necessary, and applying a new protective coating. The quantity of fluid released from this portion of the feeder system has been reduced by 86 percent from just two years ago.

**Transformer Releases to Sewers and Waterways**

Con Edison manages approximately 78,500 pieces of oil-filled equipment, including transformers in underground vaults, transformers mounted on poles, and transformers mounted on concrete pads. During 2002, there were 15 releases of transformer oil into sewers or waterways, totaling 760 gallons. One-third of these releases were caused by damage to pole-mounted transformers as the result of storms or vehicles striking utility poles. Another third were attributed to corrosion. In 2001, there were 11 transformer releases, totaling 802 gallons.

*Performance improvement activities:* Inspections and preventive maintenance continue to be important measures taken

to identify potential problems, such as corrosion. Installation of oil minders — devices placed on transformer vault sump pumps that are designed to shut off the pump if oil-contaminated water is sensed — continued in 2002. More than 2,100 oil minders have been installed to date as part of this ongoing program. Small dirt excavations at the bottom of the vault, called sumps, are being filled with concrete to prevent the migration of oil in the event there is a leak. Con Edison crews sealed 1,055 of these sumps with concrete in 2002.

**Chemical Releases Above Reportable Quantities**

There were 10 chemical releases above reportable quantities in 2002, compared with 14 releases in 2001. Five of these releases were refrigerants of the type found in air conditioning units. Three releases involved antifreeze and the remaining two were releases of sulfuric acid.

*Performance improvement activities:* In most cases, the company performs a root-cause analysis

(which includes analysis of equipment and human performance factors) to determine the reason for the problem and to identify measures to prevent recurrence. Preventive maintenance activities are also conducted to find and correct problems before they result in releases.

**Hazardous Waste Manifested Off-site**

Con Edison shipped 23.9 million pounds of manifested hazardous waste to commercial waste-handling facilities in 2002, mostly lead-contaminated sediment from manhole cleanouts. This reflects a 43 percent reduction in waste manifested and shipped annually off-site since the baseline year of 1997, when the total waste manifested and shipped was 42.3 million pounds.

**Toxic Release Inventory**

Since 1998, electric utilities have been required to comply with federal regulations of Toxic Release Inventory (TRI) reporting. Substances requiring reporting are generally associated with the combustion of fuel. (See table below.)

**Toxic Release Inventory** (see text, above right)

Of Con Edison plants, only the East River plant meets the threshold for TRI reporting. The chart below stipulates East River's TRI.

Year	Quantity	Substance
1998	41,072 lb	sulfuric acid mist
1999	41,886 lb	sulfuric acid mist
2000	29,679 lb	sulfuric acid mist dioxin compounds: 0.4128 grams polycyclic aromatic compounds: 7.8 lb
2001	35,160 lb	benzo (g, h, i) perylene: 0.65 lb sulfuric acid mist dioxin compounds: 0.4885 grams polycyclic aromatic compounds: 61.490 lb <sup>1</sup> benzo (g, h, i) perylene: 0.736 lb <sup>2</sup> lead: 93 lb <sup>3</sup>

- 1 includes 56.117 lb shipped off-site
- 2 includes 0.604 lb shipped off-site
- 3 includes 43 lb shipped off-site

Notes:  
Per EPA regulation, 2002 emissions will be reported in July 2003.

## Other Activities

### Mercury Regulator Removal Program

The company continued its accelerated program to eliminate mercury-containing gas regulators located on customer premises, removing an additional 15,066 in 2002. In 2001, 14,590 regulators were removed, and the remaining 2,276 are expected to be removed by the end of 2003.

### Transformer Retrofill Program

In 1992, Con Edison initiated a program to remove or retrofill all distribution transformers in street vaults and substations that contained oil with PCB levels equal to or greater than 50 ppm. The program was completed in 2002 with more than 7,000 underground transformers replaced or retrofilled. In 2002, a program to inspect and sample all transformers on the overhead distribution system was also completed.

### VOC Reduction

Con Edison reconditions approximately 150 network transformers each year before returning them to service. To ensure a long service life in underground manholes and vaults, the company applies a durable epoxy coating system to all exposed surfaces. Con Edison had the process reformulated by the paint manufacturer to substantially reduce the volatile organic compounds (VOC) released in the application process. Although previous levels of VOC releases were in compliance with emission regulations, the process now in use reduced VOC releases by more than 7,000 pounds per year.

### Protecting the Air

Climate change, partially attributed to man-made production of greenhouse gases (GHG), contin-

ues to be a worldwide concern. Con Edison has been a participant in voluntary GHG reduction initiatives since 1993.

In 1993, Con Edison became one of the first companies to voluntarily join the U.S. Environmental Protection Agency's (USEPA) Natural Gas STAR Program. As a STAR Partner in the transmission and distribution sector, the company evaluated the program's recommended best management practices for reducing natural gas emissions and implemented those that were applicable to our operations. Projects were initiated with the focus on inspection and maintenance at gate stations and surface facilities, and repair and replacement of leaky distribution pipe. Using USEPA values for natural gas leakage rates, Con Edison has reduced natural gas emissions by more than 2.3 billion cubic feet, on a project basis, since 1993. Con Edison uses the industry measure of carbon dioxide equivalency (CO<sub>2,e</sub>) to compare the impact of different gases on the greenhouse effect. By this measure, the reduction in our natural gas emissions is the equivalent of 1,027,500 tons of carbon dioxide.

In 1999, Con Edison entered into a memorandum of understanding with the USEPA, voluntarily enlisting in the Sulfur Hexafluoride (SF<sub>6</sub>) Emissions Reduction Partnership for Electric Power Systems. Using 1996 as the base year, the program is designed to help reduce emissions of this inert gas used in high-voltage equipment. The company estimates that in 1996 its emissions of SF<sub>6</sub> were 183 tons, or approximately 4.4 million tons, of CO<sub>2,e</sub>. Since joining the program, Con Edison has reduced SF<sub>6</sub> emissions by the cumulative amount of 5.7 million tons of CO<sub>2,e</sub>. In

## Pollution Prevention

Con Edison voluntarily joined more than 800 businesses and state and local governments in 1996 to participate in the federal EPA WasteWise program to reduce municipal solid waste. Our continuing waste prevention and recycling effort earned the company a 2001 "WasteWise Champion" award.

The award was for a series of recycling and other environmentally conscious actions. These include the reuse of office furniture, saving about \$500,000 and keeping 171 tons of scrap furniture out of the waste stream. We recovered almost two million pounds of paper products and about 13 million pounds of scrap cable. We also recycled non-PCB lighting ballasts and toner cartridges. We purchased more than \$1.2 million of recycled products in 2001.

Pollution prevention coordinators are located throughout the company to keep our employees aware of opportunities to prevent pollution and to look for new ways to improve.



**Rebecca Sunde, line constructor, loads poles destined for recycling.**



2002, Con Edison's annual emissions were 39 percent less than the 1996 baseline and the 2002 emissions were 14 percent less than the 2001 emissions.

One of the company's major sources of CO<sub>2</sub> emissions is our steam and power system. In operating the largest district steam system in the world, Con Edison burns natural gas and very-low-sulfur oil in utility-size boilers and in combustion turbines; however, our steam production is entirely weather-dependent and the subsequent GHG emissions are also weather dependent.

Con Edison has participated with the Department of Energy and voluntarily reports CO<sub>2</sub> emissions from the company's major CO<sub>2</sub> emission sources. (The chart on page 13 indicates emissions and trends from our major sources.)

### Recognition

Con Edison's environmental performance was positively recognized in several venues in 2002. Con Edison was approved for certification to the International Organization for Standardization 14001 Environmental Management System Standard, which entitles the company to use the phrase, "Con Edison, an ISO 14001 company." This prestigious and internationally recognized nomenclature signifies that Con Edison has a mature environmental management system in place.

The 2002 *Innovest U.S. Utility Industry Report* gave Con Edison the third highest ranking for environmental performance in a list of 28 electric utilities for, among other accomplishments, developing an alternative method of detecting dielectric fluid leaks and completing a three-year pilot program to help customers



**At the truck stop electrification project at Hunts Point Cooperative Market, drivers can enjoy air conditioning in their cabs and maintain refrigeration without idling their motors.**

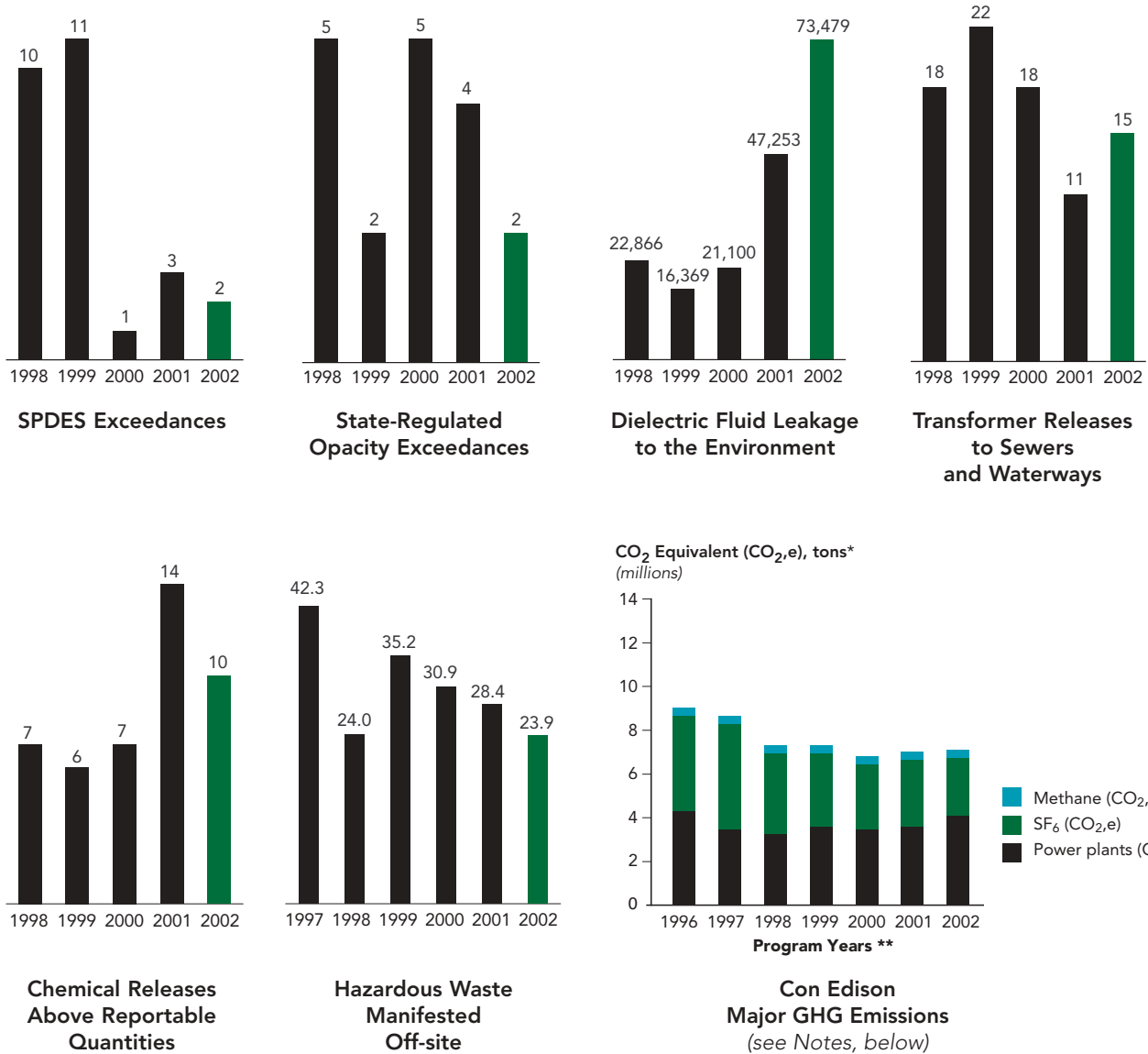
install distributed generation systems. *Innovest* also gave the highest ratings to Con Edison in the category of managing air emissions risk.

The Environmental Protection Agency (EPA) awarded its Clean Air Excellence Award for Con Edison's Hunts Point Market Truck Electrification Project, its Environmental Quality Award for the company's mercury gauge exchange program, and its WasteWise Champion Award for our recycling program.

The Institute of Electrical and Electronic Engineers, Inc. (IEEE), elected Dr. Reza Ghafurian, a manager in Con Edison's electrical engineering department, to its 2003 Fellows program for his leadership in the mitigation of the environmental impact of fluid-filled transmission cables.

Con Edison was named Energy Company of the Year at the Global Energy Awards sponsored by *Platts/Business Week*. Criteria for the award are overall excellence in safety, the delivery of energy, customer care, technological innovation, and environmental concern. Con Edison also was featured in an article, "The Greening of the Big Apple," in *Environmental Protection* magazine.

### Selected Performance Indicator Charts



#### RECYCLING TOTALS FOR YEAR 2001

DESCRIPTION	QUANTITY
Mixed paper & cardboard	977 tons
Scrap AC/DC meters	172 tons
Scrap OB meters	1,240 each
Scrap cable (regular)	2,950 tons
Scrap cable (PILC)	3,400 tons
Scrap iron & steel	893 tons
Toner cartridges	9 tons
Tin & aluminum gas meters	3 tons
Network protectors	170 each
Scrap computer equipment	1,950 pieces
Office furniture reused within the company	130 tons

#### RECYCLING TOTALS FOR YEAR 2002

DESCRIPTION	QUANTITY
Mixed paper & cardboard	1,095 tons
Scrap AC/DC meters	139 tons
Scrap OB meters	640 each
Scrap cable (regular)	3,349 tons
Scrap cable (PILC)	4,136 tons
Scrap iron & steel	871 tons
Toner cartridges	9 tons
Tin & aluminum gas meters	18 tons
Network protectors	71 each

#### NOTES: MAJOR GHG EMISSIONS GRAPHIC

\* Carbon dioxide equivalent (CO<sub>2,e</sub>) is a measure of the potential of a non-CO<sub>2</sub> greenhouse gas impact compared with the impact of CO<sub>2</sub>. A unit of methane has 21 times more impact on global warming than 1 unit of CO<sub>2</sub>; therefore, methane CO<sub>2,e</sub> = 21. SF<sub>6</sub> CO<sub>2,e</sub> = 23,900.

\*\* The starting point of 1996 was chosen as a common year for quantifiable data in the three major programs. Power plant CO<sub>2</sub> emissions in all years include plants owned/operated by Con Edison Company of New York, Inc., a subsidiary of Con Edison, Inc. Emissions do not represent plants sold during the period.



## EVALUATING OUR 2002 SAFETY PERFORMANCE

In 2002, Con Edison's employees achieved our best-ever safety performance. With improving safety performance as a key objective in the company's EH&S strategic plan, we will build on this accomplishment and strive to do even better. We will continue to work toward an injury-free workplace and to provide education and training so that our employees can understand and put into action the EH&S policies, practices, and procedures that create the culture and processes necessary to achieve safety excellence.

To showcase the commitment to safety by all employees, Con Edison held its second annual safety conference, attended by more than 300 union and management participants from across the company.

Since 1998, labor/management teams have worked together to communicate about safety concerns and to participate in key functions such as accident investigations and inspections. With the leadership of these teams, the climate of trust that has developed is creating the sense of shared responsibility that leads to improved performance.

Con Edison's Close Call program, which encourages open communication about the potential for accidents, is managed locally with corporate oversight and support. When a close call is reported that has the potential to impact other employees or locations, a safety team investi-

gates and may make a company-wide recommendation on ways to prevent this potential throughout the company.

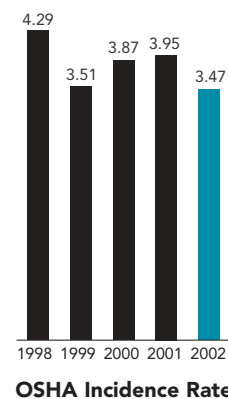
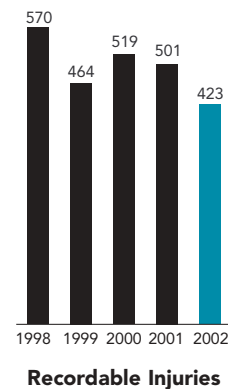
The Time Out program also encourages open communication. Any employee or contractor

**THE CLIMATE OF TRUST THAT HAS DEVELOPED IS CREATING THE SENSE OF SHARED RESPONSIBILITY THAT LEADS TO IMPROVED PERFORMANCE.**

of the company can stop a job if there is a concern about safety or environmental procedures. If needed, an EH&S representative may be called in to review the situation. The work resumes when the job is determined to be safe and that it follows EH&S procedures. Safety and environmental advice and assistance are available 24 hours a day.

A range of safety training and refresher courses for employees continued in 2002. The OSHA training program, which is activity-centered and hands-on, was completed by 9,319 employees. Con Edison also continued to train contractors and subcontractors on our high environmental, health, and safety standards and instruct them in developing the Health and Safety Plans (HASP) required for working on company projects.

The OSHA Incident Rate for 2002 was 3.47, the best in the company's history. The 2001 rate was 3.95. Recordable injuries in 2002 were 423, compared with 501 in 2001.





Where and why did we





## PRACTICES IN EXCELLENCE: Our Environmental Management System

Con Edison's Environmental Management System (EMS) comprises 12 elements that provide a framework for our employees in operating our complex energy systems, in meeting environmental requirements and regulations, and in predicting and preventing environmental incidents. The system provides many practical tools and processes to empower our employees to achieve excellence. Virtually all employees have been trained in the EMS.

Undertaken in 1995, the EMS has evolved into an effective and practical instrument for helping the company maintain standards and achieve the results it desires in environmental performance. The EMS also meets the requirements of the International Organization for Standardization's ISO 14001.

We seek to ensure EH&S compliance by sustaining our management system activities and improving work processes and practices. Several committees provide EH&S program oversight: the environmental committee of the Board, the environmental quality review board (EQRB), the environment and safety committee chaired by the EH&S vice president, and the EH&S leadership team. Each group fulfills particular responsibilities to ensure performance improvements.

A system of standards and procedures establishes the EMS structure. It is corporate policy

that environmental, health, and safety considerations be an integral component of our business practices. Con Edison has more than 90 corporate envi-

which highlights outstanding environmental, health, and safety actions by employees across the company and carries their bylines. Other accomplishments

### IT IS CORPORATE POLICY THAT ENVIRONMENTAL, HEALTH, AND SAFETY CONSIDERATIONS BE AN INTEGRAL COMPONENT OF OUR BUSINESS PRACTICES.

ronmental procedures that address the laws and regulations applicable to its operations. There are about 115 general environmental instructions providing practical guidance in 15 major areas for supervisors and field employees. An EH&S procedures review committee ensures that procedures and instructions are up-to-date, and that changes are communicated to employees and contractors who work for the company.

Communication is an essential element of the EMS. Every employee is required to complete hazard communications training, and discussion sessions and other training programs keep employees informed of job-specific hazards. EH&S managers meet regularly to discuss pertinent topics, hear updates on regulations and procedures, review performance and lessons learned, and recognize accomplishments.

EH&S topics and issues are covered in a fast-paced monthly video, titled the *Excellence Files*, that is written and produced in-house. It is distributed throughout the company in video, CD, and DVD formats and through our EH&S intranet site.

All employees also receive a monthly newsletter, *A New Leaf*,

and issues are celebrated and discussed in locally held breakfasts, meetings, and events.

The EH&S InfoLine is the new intranet portal that gives employees a single point of entry to all EH&S resources and procedures. At their workstations, employees can access such information as the asbestos manual and environmental and safety procedures and instructions. If they have EH&S reporting responsibilities, they can enter the data needed for tracking and compliance. InfoLine is a tool for all employees to keep up with EH&S news and issues.

Training is an important element in performance excellence. Con Edison offers its employees a broad-based EH&S training curriculum in several settings. At Con Edison's Learning Center (TLC), environment, health, and safety-related classes range from two-hour hazardous substance orientations to five-day asbestos-licensing programs. A database and registration system is used to enroll and track the training status of employees. An on-line matrix lets individuals view their own training histories and the courses required for their specific jobs. On-the-job training provides practical guidance and reinforces formal training.

To monitor Con Edison's environmental performance, the company utilizes an environmental management information system, which tracks environmental incidents and hazardous waste. The system records key information, communicates the information internally and to regulatory agencies, and tracks response actions. It also tracks information about hazardous waste from the time the waste is put into containers to final disposal, generating manifests and records.

Risk management — predicting and preventing incidents — is a principal element in achieving excellence. Representatives from EH&S, Engineering, and Con Edison operating organizations regularly review equipment, processes, and procedures for environmental, health, or safety risks. The process includes an evaluation of risks and sets prior-

ities, and then develops and implements appropriate risk control measures.

All Con Edison facilities are subject to both announced and unannounced inspections by the Auditing department to help ensure effective EH&S management. Auditing also trains operating area personnel in assessing their own facilities. Performance improvement is also gained through incident root cause analysis and corrective actions. Commitments to regulators and others are tracked through completion by an intranet-based system.

EH&S policy requires that every employee take responsibility for environmental and safety performance. Each employee's annual performance review includes an assessment of the individual's performance in this area, and all

employees are subject to discipline for environmental, health, or safety infractions. Outstanding performance is reinforced by celebrating success and through a multitiered awards program, including the company's highest EH&S honor — the annual EH&S Excellence Award.

An important part of empowering employees to take responsibility is to maintain open avenues for reporting safety or environmental concerns without fear of retaliation. Any employee or contractor may call a Time Out if there are environmental or safety concerns. Other avenues include a confidential Ethics Helpline, a company ombudsman, and an independent monitor.

### **Excellence Files On Location**

The *Excellence Files*, videotaped on location and shown to employees throughout the company, is a fast-paced monthly show designed to maintain a high level of awareness on environmental and safety issues. The programs range from pointing out potential hazards and issues to documenting outstanding environmental or safety performance. Articles feature employees and generally follow the same format as a local news program. The production is circulated on VHS tapes, CDs, DVDs, and the company intranet in order to reach all employees. Employees often suggest stories or bring issues to the attention of the *Excellence Files* staff so that the production is responsive to its audience.



**For a segment of EH&S's *Excellence Files*, Chief District Operator Robert Blick explains how Con Edison's Energy Control Center responds in emergencies.**

## Our Emergency Management System in Action

A key 345-kV transmission line to New York City and Long Island failed in mid-May 2002. Co-owned by Con Edison and the Long Island Power Authority (LIPA), the Y-50 cable brings power from upstate New York, and represents one-third of LIPA's import capability. Con Edison identified the fault in a 2,600-foot underwater section of cable located between two small islands in Long Island Sound. Neither island has docking facilities

nor infrastructure other than manhole access to the cable. Repairing the cable ahead of summer demand, marshalling the needed workforce and equipment, and preventing any impact on the sound's water quality required a companywide, coordinated response.

Within the framework of the widely used Incident Command System (ICS), Con Edison established a command post and set

a goal of executing the repair by the end of July. Working around the clock, the Y-50 project team ferried equipment at high tide, and excavated and constructed at low tide. Special structures were built to create the controlled conditions necessary for the technically sensitive, delicate repair work. Care was taken to prevent the cable's insulating fluid from entering the environment. Con Edison kept continuous communication with the U.S. Coast Guard and the New York State Department of Environmental Conservation to ensure that the company met all environmental standards and requirements.

Con Edison's Y-50 project team completed the cable repair in 40 days on June 28, 2002, three weeks ahead of schedule, ensuring power reliability in the New York metropolitan area and contributing to the stability of the bulk power market. The Y-50 team proved as committed to leaving the environment as they found it as in restoring the cable to full operation.



**Aerial view of a portion of the Y-50 transmission line restoration site shows the scope of the project (top).**



**Inside a specially built, temperature- and humidity-controlled containment area, Con Edison mechanics Ralph Pucci, Michael Ramcharam, and Henry Ramkisson are using a "clamshell" machine to separate 20-inch conduit to expose the Y-50 cable.**





## EMERGENCY MANAGEMENT

Con Edison has well-developed systems and procedures in place to respond to incidents and emergencies.

Environmental response team (ERT) members are trained to respond to emergencies and incidents and are available around the clock. Reporting to the scene, they represent Con Edison to regulatory and response agencies and can mobilize company and contractor services to address an incident.

Along with EH&S, Con Edison's Emergency Management group plans, trains, and drills to prepare for incidents and emergencies. All operating areas maintain emergency response plans and employees participate in training, tabletop exercises, and field drills to ensure readiness. They also have dedicated additional staff responsible for assisting during emergencies. These emergency response groups (ERGs) represent significant field experience,

community contact, and an in-depth understanding of the principles of emergency management.

Management, the Metropolitan Transit Authority (MTA), battalion chiefs and fire marshals in the Fire Department of New York

### CON EDISON'S EXPERIENCE AND EXPERTISE IN ENVIRONMENTAL AND EMERGENCY MANAGEMENT AND RESPONSE IS WELL RECOGNIZED IN THE COMMUNITY.

In 2002, Emergency Management extended Incident Command System (ICS) training to all operations personnel, and the training is now a corporatwide requirement for operational units. The ICS provides the standard for responding to and managing events. Training continues the process of making ICS part of "The Way We Work," and ICS protocols have been woven into many of the operational training curricula at the Con Edison Learning Center.

In addition to internal training activities, Con Edison provides continuing education about our energy systems to the New York City Office of Emergency

(FDNY), and the New York Police Department (NYPD). The company also makes presentations to these groups on our biological/chemical emergency response team capabilities. Con Edison's experience and expertise in environmental and emergency management and response is well recognized in the community.





## EH&S EXCELLENCE AND THE COMMUNITY

Con Edison had many opportunities in 2002 to participate in activities promoting the wise and effective use of natural resources in our larger community. Because environmental excellence is a core part of Con Edison's corporate values, the company's Strategic Partnerships department emphasizes support of groups and organizations that provide environmental education opportunities to young people and families. We believe that the earlier environmental awareness is raised for children, the more care and understanding they will have for the natural resources we all share. Through our partnerships with such organizations as the National Audubon Society, The Nature Conservancy, and American Littoral Society, our support helps to make available curricula and materials for schools.

Our support of Queens College's Project GLOBE continued and expanded in 2002. This international program seeks to improve the teaching and learning of science, based on the premise that students best learn science by doing science. Global Learning and Observations to Benefit the Environment (GLOBE) was founded by federal agencies such as NASA and the National Science Foundation to bolster U.S. students' science education. Queens College is the

only GLOBE learning center in southern New York. In the kick-off year, the college trained 36

teachers from high schools in Queens. Con Edison's continued support in 2002 has helped the program to train an additional 80 teachers from 26 schools across Brooklyn and Staten Island.

A new Audubon Center run by Brooklyn's Prospect Park Alliance houses a special classroom known as the "Con Edison Discover Nature Theater." Con Edison supports this learning center, a comprehensive environmental education hub with a special focus on children.

Con Edison is the principal fund provider and a collaborator, along with the Natural Resources Defense Council, Northeast States Clean Air Foundation, Northeast States for Coordinated Air Use Management, and the New York Department of Environmental Conservation, in Clean Air Communities (CAC), a model for using market-based mechanisms to implement community-based clean air initiatives. Con Edison is a member of the CAC steering committee. Projects include a demonstration project with state and city officials, construction contractors, and diesel technology experts to achieve real reductions in sulfur emis-

sions from heavy-duty vehicle operations at the World Trade Center rebuilding site, and the

**WE BELIEVE THAT THE EARLIER ENVIRONMENTAL AWARENESS IS RAISED FOR CHILDREN, THE MORE CARE AND UNDERSTANDING THEY WILL HAVE FOR THE NATURAL RESOURCES WE ALL SHARE.**

installation of a rooftop solar array on commercial buildings in Greenpoint, Brooklyn.

Trout in the Classroom is a new environmental education program funded by Con Edison in 2002. Coordinated by Theodore Gordon Flyfishers, Inc., and supported by businesses and federal and state agencies, the program teaches students the importance of maintaining clean, cold, moving water in New York's watershed areas. Participating schools are provided with aquarium equipment in which students raise trout from eggs provided by state hatcheries for eight months and then release them into upstate streams.



Con Edison also undertook support of the Council on the Environment of New York City (CENYC) to establish centers of energy education and action efforts at city high schools and intermediate schools. CENYC has trained more than 1,500 students in the 2002–2003 school year to organize almost 50 environmental improvement projects, ranging from water conservation and indoor air quality improvement to the preservation of significant natural areas. Energy and energy conservation are a major focus.

We continued our support of well-established programs by sponsoring the Green Horizons conference for the seventh consecutive year, celebrating America Recycles Day with a workshop for children at Con Edison's Learning Center for the sixth time, and sponsoring for the fourth year the New York City Envirothon competition for high school students.

### **Cleaning the Community**

Con Edison made a significant environmental commitment in 2002 when it entered into a Voluntary Cleanup Agreement (VCA) with the New York State Department of Environmental Conservation to investigate, test, and clean up, if necessary, 50 historic sites of manufactured gas plants (MGP) and manufactured gas holder stations located in Con Edison's service territory. Manufactured gas plants were operated between the

early 1800s and mid-1900s, before the development of natural gas systems, to convert coal and oil into gas for cooking, heating homes, and lighting city streets. Although the era of manufactured gas ended long ago, federal and state environmental agencies have asked the utility industry across the nation to investigate the sites of these former facilities.

Under its voluntary agreement with the state, Con Edison began screening and testing the sites identified as former MGP facilities. When appropriate, Con Edison will implement remedial activities.

As a result of the extensive internal and external coordination and communication efforts, Con Edison has been able to simultaneously and successfully begin investigating and testing sites throughout the metropolitan area. These steps have helped build strong ties with impacted owners and community stakeholders, and NYSDEC has adopted some of our community outreach plans as they work with other utilities in the state.



**A staff member at the Audubon Center helps young visitors enjoy the wonders of nature.**



## Environmental Organizations Receiving Support From Con Edison

ALLEY POND ENVIRONMENTAL CENTER, INC.  
 AMERICAN COMMUNITY GARDENING ASSOCIATION  
 AMERICAN LITTORAL SOCIETY  
 BATTERY CONSERVANCY  
 BAY IMPROVEMENT GROUP, INC.  
 BECZAK ENVIRONMENTAL EDUCATION CENTER, INC.  
 BISSEL GARDENS  
 BLOOMFIELD CONSERVANCY  
 BROADWAY MALL ASSOCIATION  
 BRONX RIVER ALLIANCE  
 BRONX RIVER WORKING GROUP  
 BROOKLYN BOTANIC GARDEN  
 BROOKLYN BRIDGE PARK COALITION  
 BROOKLYN CENTER FOR THE URBAN ENVIRONMENT, INC.  
 BROOKLYN CHILDREN'S MUSEUM CORP.  
 CENTRAL PARK CONSERVANCY  
 CITY PARKS FOUNDATION  
 COMMUNITY ENVIRONMENTAL CENTER, INC.  
 COUNCIL ON THE ENVIRONMENT OF NEW YORK CITY  
 EARTH CELEBRATIONS, INC.  
 EARTH DAY NEW YORK  
 ENVIRONMENTAL EDUCATION ADVISORY COUNCIL  
 FRESH AIR FUND  
 FRIENDS OF ALICE AUSTEN HOUSE, INC.  
 FRIENDS OF PALISADES INTERSTATE PARK COMMISSION  
 FRIENDS OF PELHAM BAY PARK  
 FRIENDS OF THE HIGH SCHOOL FOR ENVIRONMENTAL STUDIES  
 FRIENDS OF VAN CORTLANDT PARK, INC.  
 GOWANUS CANAL COMMUNITY DEVELOPMENT CORP.  
 GREEN GUERRILLAS  
 GREENBELT CONSERVANCY, INC.  
 HISTORIC HUDSON VALLEY  
 HORTICULTURAL SOCIETY OF NEW YORK, INC.  
 HUDSON RIVER ENVIRONMENTAL SOCIETY  
 HUDSON RIVER MUSEUM OF WESTCHESTER  
 HUDSON RIVER PARK ALLIANCE  
 HUDSON VALLEY REGIONAL ENVIROTHON  
 I-MA-GREEN-NATION  
 INFORM, INC.  
 JAY HERITAGE CENTER  
 MAGNOLIA TREE EARTH CENTER OF BEDFORD-STUYVESANT, INC.  
 MARITIME WORKSHOP  
 NATIONAL AUDUBON SOCIETY  
 THE NATURE CONSERVANCY — LONG ISLAND CHAPTER  
 THE NATURE CONSERVANCY OF NEW YORK  
 NEW YORK BOTANICAL GARDEN  
 NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 NEW YORK CITY SOIL AND WATER CONSERVATION DISTRICT  
 NEW YORK CONGREGATIONAL HOME FOR THE AGED

NEW YORK LEAGUE OF CONSERVATION VOTERS  
 NEW YORK PARKS AND CONSERVATION ASSOCIATION  
 NEW YORK RESTORATION PROJECT  
 NEW YORK STATE ENVIROTHON COMMITTEE  
 NEW YORK WATER ENVIRONMENT ASSOCIATION, INC.  
 NEW YORK ZOOLOGICAL SOCIETY/WILDLIFE CONSERVATION SOCIETY  
 NEW YORKERS FOR PARKS  
 NINTH STREET GARDEN AND PARK, INC.  
 NORTH SHORE ANTI-GRAFFITI VOLUNTEERS, INC.  
 NYS URBAN AND COMMUNITY FORESTRY COUNCIL  
 OLANA PARTNERSHIP  
 PLACES IN HISTORY  
 PLEASANT VILLAGE COMMUNITY GARDENS, INC.  
 PROSPECT PARK ALLIANCE  
 QUEENS BOTANICAL GARDEN  
 QUEENS COLLEGE FOUNDATION, INC.  
 QUEENS COUNTY FARM MUSEUM  
 RANDALLS ISLAND SPORTS FOUNDATION  
 RESEARCH FOUNDATION/PROJECT STIR  
 REV. LINNETTE C. WILLIAMSON MEMORIAL PARK ASSOCIATION, INC.  
 THE RIVER PROJECT  
 RIVERDALE NATURE PRESERVANCY, INC.  
 RIVERKEEPER  
 ROCKING THE BOAT  
 SCENIC HUDSON, INC.  
 SELFHELP COMMUNITY SERVICES, INC.  
 SETON FALLS PARK PRESERVATION COALITION  
 STATEN ISLAND BOTANICAL GARDEN, INC.  
 STATEN ISLAND ZOOLOGICAL SOCIETY  
 SUSTAINABLE SOUTH BRONX  
 TAKE THE FIELD  
 TEATOWN LAKE RESERVATION, INC.  
 THEODORE GORDON FLYFISHERS, INC.  
 TREES NEW YORK  
 UNITED WAY  
 WAVE HILL, INC.  
 WEST SIDE COMMUNITY GARDEN, INC.  
 YONKERS DOWNTOWN WATERFRONT DEVELOPMENT CORP.  
 YOUTH MINISTRIES FOR PEACE AND JUSTICE







## CELEBRATING SUCCESS

# Environment, Health and Safety Excellence Awards

In 2002, as it has each year since 1995, Con Edison celebrated the “best of the best” accomplishments of its employees in protecting health, safety, and the environment. The prestigious EH&S Excellence Awards exemplify the company’s continuing commitment to the principles of “The Way We Work” at Con Edison.

Award categories reflect the six key objectives of Con Edison’s

EH&S strategic plan, which are to ensure EH&S compliance, improve safety performance, enhance relationship with stakeholders, integrate EH&S into “The Way We Work,” identify and reduce significant EH&S risk potential, and promote the wise and effective use of natural resources.

The company honored 61 employees, individually and in teams, with its highest recognition for outstanding contributions to EH&S excellence at an

annual EH&S Awards Breakfast. Winning projects included such activities as successfully protecting the environment and restoring reliability following a feeder failure, demonstrating good corporate citizenship by working collaboratively with legislators and community boards, showing concern for the safety of others, and preventing waste.

“

In addition to being an accolade of the highest order, the Environment, Health & Safety Excellence Award brings an added measure of responsibility to the recipients. They will continue to be role models for their organizations and the entire company, continuing to learn, to think, to teach, and to communicate.

”

Kevin Burke  
*President and Chief Operating Officer*  
*Consolidated Edison Company of New York, Inc.*

# 2002 EH&S Excellence Award Winners

## Integrate EH&S into "The Way We Work" at Con Edison

Joseph Tusa, S&TO  
Christopher Silveri, SSO  
Cory Jaworsky, SSO  
Gerard Toto, CFS  
Dennis Scurto, SSO  
Fred Baumann, SSO  
Louis Cardillo, SSO  
Harris Gajadhar, SSO  
Robert O'Neill, Manhattan Electric  
Robert Pellegrino, Manhattan Electric  
Robert Clarke, IR  
Francisco Diaz, IR  
Jeanne Canner, Bronx/Westchester Electric  
Walter Alvarado, Brooklyn/Queens Electric

## Improve safety compliance

Michael Mitchell, Law  
Joanne Owens, Customer Operations  
Steve Schwartz, Customer Operations  
James Lennon (retired), TLC  
Bernard Duffy, Customer Operations  
Robert Murray, Customer Operations  
Timothy Langan, M&CS  
Kenneth Trager, Bronx/Westchester Electric  
William Kelleher, Bronx/Westchester Electric  
Frank Vivola, Gas Operations  
James Meyers, Gas Operations  
Jerome Gervasi, M&CS  
Jose Villa, M&CS



## Identify and reduce EH&S risk potential

William Geerlings, Gas Engineering  
Daniel Long, Steam Business Unit  
Michael McGroarty, SSO  
Jon Kip, O&R  
Frank Stasi, O&R  
John Shoemaker, O&R  
William Durma, O&R  
Joseph Dente, CFS  
Peter Moore, CFS  
Peter Mladinich, Brooklyn/Queens Electric  
Seda Edjo, Brooklyn/Queens Electric  
Dennis Hearn, Brooklyn/Queens Electric  
John Grant, Brooklyn/Queens Electric  
Laurence Farrell, Brooklyn/Queens Electric  
Robert Piepiora, Engineering Services  
Josue Thomas, Engineering Services  
Barry Cohen, EH&S  
Nicholas Caputo, Brooklyn/Queens Electric  
Glenn Malysz, Brooklyn/Queens Electric  
Keong Yong, CFS

## Ensure EH&S compliance

Leon Paretsky, S&TO  
Richard Skote, S&TO  
Kenneth Marcolius, EH&S  
Miriam Popp, EH&S

## Make wise and efficient use of natural resources

Richard Jensen, CFS  
Wayne Laurenzano, Brooklyn/Queens Electric  
Charles Yatchum, CFS  
John Hipp, Brooklyn/Queens Electric  
Albert Dispirito, Brooklyn/Queens Electric  
Timothy Sieban, SSO

## Enhance relationship with stakeholders

Walter Stepian, Central Engineering  
Darren Bloch, Public Affairs  
Eddy Louie, EH&S  
Michael Wilcken, Law

ON IT

## FULL-PAGE PHOTO CAPTIONS

The following captions identify the full-page photographs that introduce each section.

*Page 4* . . . .Springtime in the Brooklyn Botanic Garden.

*Page 8* . . . .New York City's largest commercial solar electric system, in Greenpoint, Brooklyn.

*Page 14* . . . .Con Edison employees' fire-retardant clothing is picked up, cleaned, and returned weekly.

*Page 16* . . . .A senior instructor fields a question during OSHA Millennium training.

*Page 20* . . . .Frequent drills across the company keep the skills of emergency responders sharp.

*Page 22* . . . .A Con Edison volunteer helps a youngster with his environmental project at America Recycles Day festivities.

*Page 26* . . . .Con Edison field employees gather used wood products for recycling.





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