

Dow sees its place on this earth as a place in nature. We will uphold our tradition of protecting the environment. We will also vigilantly guard the health and safety of the people around us, particularly those who work for us, those who handle or use our products, and those who live in the communities where we operate.

This section looks at our records and the numerous programs Dow and Union Carbide have implemented over the years in pursuit of excellence in the environment, health and safety area.

Holding Nature Sacred

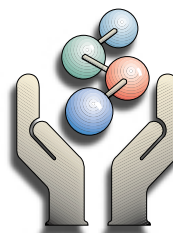


A Leading Role in Responsible Care® Development

In 1988, then Union Carbide chairman Robert Kennedy and Dow chairman Paul Orefice called on companies making up the Chemical Manufacturers Association (CMA) to adopt a performance improvement initiative. The two men were among the industry visionaries who recognized that the chemical industry needed to improve its environmental, health and safety performance and respond to the public's concerns.

In 1989, the association developed the blueprint for what has become the industry's most progressive performance-based initiative — Responsible Care®. With strong member company backing, the initiative has made a major impact

during the past decade. Emissions are down significantly; worker safety is the best among all industries; chemical transportation safety has improved tremendously; and dialogue with the public has become a central part of industry operations.



Responsible Care®
A Public Commitment



Robert Kennedy



Paul Orefice

Union Carbide's Health, Safety and Environmental (HSE) Program

Corporate HSE Audit Program

In 1985, Union Carbide became one of the first companies in the United States to initiate a corporate HSE audit program to verify business and site compliance with internal standards and regulatory requirements. The audit program, which also fosters HSE awareness at the individual and group levels, involves a rigorous compliance check performed by highly trained Carbide employees using best practice auditing procedures. External auditors participate in about 10 - 15

percent of the audits, performing follow-up analysis. An annual assessment of performance is provided directly to a committee of Union Carbide's Board of Directors, consisting entirely of non-employee directors.

Implementing Responsible Care®

Responsible Care® performance is Union Carbide's No. 1 priority. The company completed the United States implementation of the six Responsible Care® management

codes in 1996, three years ahead of the target set by the CMA. Worldwide implementation of the codes was completed in 1998. Union Carbide has incorporated Responsible Care® management practices into its corporate Responsible Care® standards, which are mandatory for all its businesses and locations worldwide.

In addition, three operational initiatives exemplify the company's continuing resolve to meet the demands of the Responsible Care® ethic.

Environment, Health & Safety (EH&S) at Dow

Dow is applying its EH&S Policy through its global commitment to Responsible Care® and through aggressive EH&S 2005 performance targets set in 1995. In addition to profit and loss, Dow's global businesses are directly accountable for their own EH&S performance. Many of Dow's businesses tie a portion of employees' variable pay directly to the achievement of EH&S goals. The remarkable progress Dow is making toward these goals is the impetus behind the company's vision of zero — no accidents, no injuries and no environmental harm.

Dow's EH&S Policy

At Dow, protecting people and the environment will be part of everything we do and every decision we make. Each employee has a responsibility in ensuring that our products and operations meet applicable government or Dow standards, whichever is more stringent.

Our goal is to eliminate all injuries, prevent adverse environmental and health effects, reduce wastes and emissions and promote resource conservation at every stage of the life cycle of our products. We will report our progress and be responsive to the public.

• Operational Safety Program

Union Carbide's Operational Safety Program (OSP), implemented worldwide in 1987, defines the essential elements to prevent incidents such as fires, explosions and releases. OSP, integrated with the process safety management practice of Responsible Care® and OSHA's Process Safety Management standard, affects facility design, plant operating procedures, maintenance practices, and process safety efforts at all Carbide facilities. Union Carbide regularly refines this program; the most recent changes include instituting a new reporting

system to collect data on "near-miss" process safety incidents and a more rigorous process change review procedure to ensure that even minor changes to computerized control systems receive the proper safety and regulatory compliance review.

• Episodic Risk Management System

Designed to protect employees and the public, Union Carbide's Episodic Risk Management System (ERMS) is a quantitative approach to prioritizing and reducing the risk of fire, explosion and toxic gas releases. This comprehensive management system assures that risk

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▶ Responsible Product Stewardship

Dow's work in the product stewardship area goes back more than 50 years. The company first adopted a formal, company-wide product stewardship program in 1972. Product stewardship brings the life cycle of every chemical product under intense scrutiny — from design and manufacture, to use, recycling and disposal.

Dow invests significant time and resources in research and development to consider EH&S issues and find solutions before the products and processes take shape. Dow wants to design products with mini-

mal impact on health and the environment and to determine better ways to manufacture products.

Each Dow business has an Environment, Health & Safety product leader and every Dow product has a local product steward. They work together to ensure product standards and regulatory requirements are met; develop hazard and risk information on the products; evaluate customers' use, storage and disposal practices; communicate safe handling information to customers; investigate all product-related incidents and initiate corrective action.

Environment, Health & Safety Timeline

1960s

Union Carbide

1964

Union Carbide establishes its Hazardous Emergency Leaks Prevention (HELP) team program to respond to transportation emergencies involving leaking or damaged shipments of chemicals.

Dow

1965

Dow becomes one of the producers of napalm for the U.S. Department of Defense. The contract involved only a dozen employees and was a fraction of a percent of company sales. Nevertheless, napalm became a widely known operation in the company's history and Dow became a focus of the U.S. anti-war movement.

1966

Dow's Chairman of the Board Carl Gerstacker delivers the speech titled *Management's Role in Pollution Control* to emphasize the importance of a company management's commitment to the environment.

1967

Dow commits to energy conservation in normal operations and future capital projects.

United States

1962

Silent Spring, a book by marine biologist Rachel Carson, alerts the public to the broad destruction of wildlife by toxic pesticides. The book receives national attention, including a press conference with President Kennedy and Congressional hearings.

1967

Four scientists, alarmed at the impact of DDT on wildlife, join with an attorney to form the Environmental Defense Fund — the first group to take scientific evidence into courts to achieve environmental goals.

1969

U.S. President Nixon signs the National Environmental Policy Act, requiring an environmental impact statement to be completed and alternatives to be proposed before a federal project with potential environmental impacts can be implemented.

Carbide's HSE Programs *(continued from page 37)*

decisions are made by the appropriate levels of management, holds senior management accountable for specific risk reduction activities, and provides a system of checks and balances to ensure that appropriate risk reduction actions are carried out in a timely manner. Union Carbide adopted the system worldwide in 1990 and revalidates the operations every five years to ensure that previous information and risk management decisions are still valid.

• Risk Characterization/Risk Management Process

Product stewardship continues to be an integral part of Union Carbide's Responsible Care® policy of designing and selling products

that can be manufactured, transported, used and disposed of safely. In 1994, Union Carbide introduced its Risk Characterization/Risk Management Process, requiring business management to conduct hazard evaluation, exposure assessment, risk characterization and risk management activities annually. In addition to identifying known and reasonably foreseeable exposure risks based on how the product will be used, this process fosters continuous improvement by assessing potential risks early in the product development cycle and regularly during commercial production and sale.

▶ Chemical Hygiene Fellowship

Union Carbide and Carbon Chemicals Corporation led the way in making toxicology a major consideration in product development. In 1937, the company established a Chemical Hygiene Fellowship at the Mellon Institute to test all Carbide products and determine their toxic effects and exposure limits. The fellowship established standardized methods for determining toxicological effects and making sound inferences from the results. Test results were made available to employees and customers as "toxicity information sheets" — the forerunners of today's Material Safety Data Sheets.

Dow's 2005 EH&S Goals

(1) Aggressively promote the Responsible Care® ethic

- Fully implement the Codes of Management Practices globally by 1997
- Promote the Responsible Care® ethic among major associations, customers, suppliers and policy makers to advocate global regulatory harmonization
- Incorporate principles of sustainable development and eco-efficiency into business strategies

(2) Significantly improve Dow's EH&S performance by reducing:

- Injuries and illnesses per 200,000 work hours by 90 percent
- Primary containment incidents (leaks, breaks and spills) by 90 percent
- Transportation incidents per 10,000 shipments by 90 percent
- Process safety incidents (fires, explosions and significant chemical releases) by 90 percent
- Motor vehicle incidents per one million miles by 50 percent
- Incidents with Dow products at customer facilities (goal to be set in 2000)

(3) Further reduce air and water emissions for global operations

- Priority compounds by 75 percent
- Chemical emissions by 50 percent
- Amount of waste and waste water generated per pound of production by 50 percent
- Energy use per pound of production by 20 percent

▶ Environmentally Preferable Products

Union Carbide has made substantial investments to develop environmentally preferable products and process technologies such as UNIPOL**. In the last decade, Carbide introduced several environmentally preferable products that are highlighted here.

1997

- Carbide develops environmentally preferable TONE** polymers, the principal ingredient in biodegradable plastic bags used for organic waste (food and yard) disposal.
- TRITON** SP surfactants earned Union Carbide the Hammer Award, given by U.S. Vice President Albert Gore for the development of environmentally preferable products. TRITON surfactants were similarly recognized in the

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▶ The Next Step in Public Reporting

Dow has published an Environment, Health and Safety Report every year since 1988. In 1996, after publicly announcing aggressive EH&S goals to be met by 2005, Dow shifted the focus of the report to tracking the progress made toward those goals. The company's voluntary effort affirms its commitment to the chemical industry's Responsible Care® initiative.

Recognizing that the public's demand for accountability can only grow as businesses take the place of big governments in the global marketplace, Dow took the logical

next step. In September 1999, it launched its first Public Report centered on the theme of sustainable development. In doing so, it became the first in the chemical industry to move beyond traditional environmental and financial reporting to sharing its progress and challenges in balancing economic growth, environmental integrity and social responsibility — also known as the “triple bottom line” of sustainable business.

You can find more information on the Public Report on www.dow.com.

Environment, Health & Safety Timeline

1970s

Union Carbide

1970

Union Carbide introduces CARBOWAX** polyethylene glycol additives, which when used in a wood preservative system, for example, are environmentally preferable treatments.

1977

Union Carbide introduces environmentally preferable, gas-phase technology — UNIPOL Process — for making linear low density polyethylene.

Dow

1970

Dow establishes its Product Stewardship program, committing the company to a role in assessing the environmental impact of products and taking steps to protect employee, customer and public health.

1972

Dow launches the *Life is Fragile, Handle with Care* safety program, which continues into the 1980s.

1972

Dow issues a comprehensive compilation of Global Pollution Control Guidelines and Goals for internal use.

1972

Gerstacker delivers landmark speech titled *Profits and Pollution* outlining ways in which pollution control can be profitable.

United States

Throughout this decade, environmental groups and professional advocates (scientists and lawyers) take on corporations and push environmental legislation.

1970

The United States observes the first Earth Day and enacts the Clean Air Act. The law allows the U.S. Environmental Protection Agency to set limits on the amount of a pollutant that can be in the air anywhere in the United States.

1972

The United States enacts the Clean Water Act and the U.S. Environmental Protection Agency bans DDT.

The Bhopal Tragedy

The following was written by Union Carbide prior to the close of the merger and represents the view of Union Carbide. Dow is not yet in a position to either agree or disagree with this statement.

In the early hours of December 3, 1984, a cloud of methyl isocyanate gas (MIC) escaped from a pesticide plant in Bhopal, India, resulting in deaths and injuries. The pesticide plant was operated by Union Carbide India Limited — a publicly-traded company owned by Union Carbide Corporation, the Indian Government and 23,000 shareholders.

Although not known at the time, the gas was formed when a disgruntled employee, apparently bent on spoiling a batch of MIC, added water to a storage tank. Carbide accepted moral responsibility for the incident despite it being an act of sabotage and then chairman Warren Anderson

traveled at once to India to offer relief to the victims. Carbide also dispatched a medical and technical team to Bhopal within 24 hours of the incident to arrange immediate and long-term relief, assist in the disposal of the remaining isocyanate, and investigate the cause.

A lawsuit against the company was concluded in 1989 when the Supreme Court of India approved a settlement of US\$470 million — the largest award ever made in India. The court described the settlement as “just, equitable and reasonable” and upheld it two years later after a new administration in India tried to have it overturned.

Union Carbide subsequently sold its 50.9 percent interest in Union Carbide India Limited and donated the proceeds from the sale to a trust to build a hospital in Bhopal. This hospital has been completed.

Environment, Health & Safety Timeline

1980s

Union Carbide

1984

A gas release at an agricultural chemicals plant in Bhopal, India, results in a tragic loss of life.

1986

Union Carbide demonstrates its commitment to HSE excellence by becoming one of the first chemical companies to initiate a corporate HSE audit program to verify business and site compliance with internal standards and regulatory requirements.

1987

Union Carbide establishes worldwide corporate HSE standards, implements a worldwide Operational Safety Program and establishes its first community advisory panel at its Texas City plant.

1988

Union Carbide is instrumental in the U.S. chemical industry adopting the health, safety and environmental (HSE) performance improvement initiative known as Responsible Care®.

1989

Union Carbide develops the UNICARB** System, an environmentally preferable technology for spray coatings that reduces volatile organic compounds (VOCs) by up to 80 percent.

Dow

1983

National attention is focused on Dow and its corporate headquarters in Midland, Michigan, when the U.S. EPA begins a study of dioxin in the Midland area. In response, Dow announces a comprehensive program, in cooperation with state and federal agencies, to assess concerns about dioxin in and around its plant in Midland and elsewhere and supports the EPA's proposal for a national dioxin study.

1984

Manufacturers of Agent Orange, including Dow, settle a class action suit involving Vietnam veterans and their families. The defendants agree to pay the US\$180 million in full and final settlement of all current and future claims related to Agent Orange.

1986

Dow establishes the Waste Reduction Always Pays (WRAP) program to bring together all previous waste reduction programs under one formal umbrella.

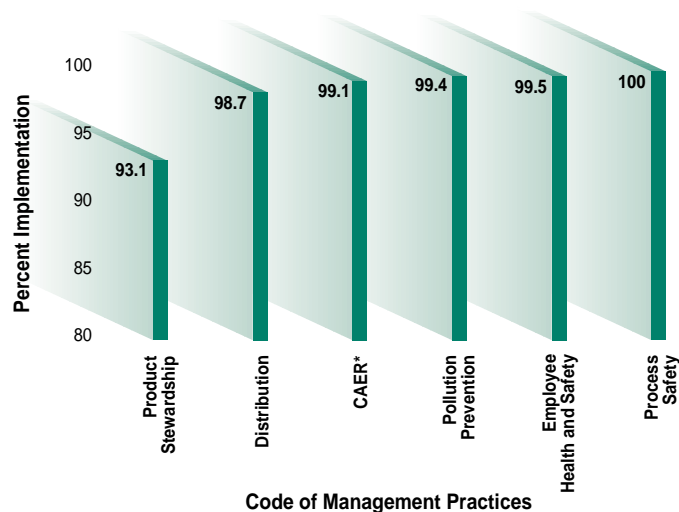
1989

Dow receives the prestigious Gold Medal from the World Environment Center for “dedicated leadership and stewardship in protecting the environment.”

1989

Dow makes a commitment to phase out the use of fully halogenated chlorofluorocarbons (CFCs) worldwide and urges other companies and nations to support the United Nations Environmental Program (UNEP) protocol.

Global Progress on Codes of Management Practice



*Community Awareness/Emergency Response

► Recent Carbide HSE Accomplishments

In 1999, Union Carbide employees achieved one of the company's best years ever from a health, safety and environmental affairs point of view. Not only were HSE measures of performance at record levels last year, but Carbiders' hard work everywhere also improved work processes.

Here are some highlights:

- Union Carbide marked its eighth consecutive year without a major process incident at any plant worldwide.
- The number of large-volume and/or potentially more serious accidental releases decreased 37 percent and the total quantity of material released declined nearly 80 percent, compared with 1998.
- Union Carbide's work-caused recordable and lost-work-day injury rates decreased by 19 percent and

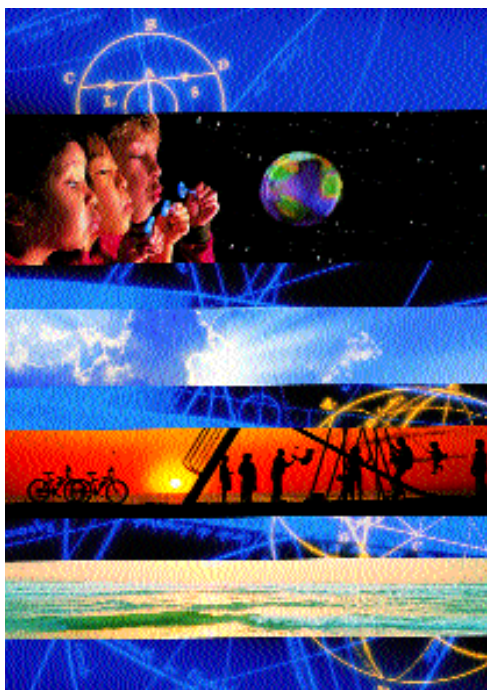
58 percent respectively while work-caused recordable illnesses dropped 14 percent, compared with 1998.

All the above achievements are consistent with the new performance-based membership requirements put in place last year by the Chemical Manufacturers Association (CMA) that are providing new direction and momentum for the Responsible Care® initiative.

- Union Carbide set up one of the industry's most encompassing web pages on the Chemical Manufacturers Association's ChemicalGuide Internet site. The site enables visitors to search for and obtain health, safety and environmental performance information as well as other background data on Union Carbide's worldwide facilities.

- As part of the CMA's 10th anniversary celebration of Responsible Care®, the association selected Carbide's Seadrift plant, along with five other CMA member companies in Calhoun/Victoria, Texas, as a *Celebrating our Communities* award recipient. The award recognized joint industry-community efforts to enhance environmental, health and safety performance.

In addition to these corporate initiatives, Union Carbide was named by the U.S. Environmental Protection Agency as a recipient of its 1999 Environmental Quality Award. The highest recognition presented to the public by the agency, this award recognized Carbide's "outstanding commitment to protecting and enhancing environmental quality."



► Dow's 1999 EH&S Performance

In 1999, Dow recorded strong performance in many areas versus its 2005 EH&S Goals.

- The global injury and illness rate — at 0.98 incidents per 200,000 work hours — is a 12 percent reduction from 1998. However, Dow had five fatalities (including Dow, contractor and recent acquisitions) during the year.
- Motor vehicle accidents (MVAs) hit an all-time low, improving 30 percent from 1998. While Dow is well ahead of the EH&S 2005 Goal, three of the fatalities recorded were MVA-related.
- Process safety incidents — fires, explosions and significant chemical releases resulting in damages over US\$25,000 — hit another all-time low with a total of 43 incidents. This is a 36 percent improvement from 1998 and almost on track with the EH&S 2005 Goal.
- Loss of primary containment (LOPC) — leaks, breaks and spills — dropped 16 percent from 1998, making it Dow's best year ever. While we are trending down, the total of 914 LOPCs is well above where we need to be to achieve the EH&S 2005 Goal.
- Government reportables and EH&S-related fines and penalties were also down significantly from 1998.

The following are key areas for improvement:

- Transportation incidents increased 40 percent from 1998 and have shot back above the EH&S 2005 Goal. Three transportation incidents resulted in fatalities involving contract carriers.
- Customer facility incidents also showed an increase due mainly to

far more thorough reporting from the Corrective Action Management Process (CAMP) — a Dow process for resolving customer problems — and the addition of Dow Pacific and Latin America to the baseline. With this more accurate and stable global baseline, Dow is in a better position to address root causes and set a complementary EH&S 2005 Goal.

▶ Wall Street Embraces Corporate Sustainability Concept Dow Recognized as Sustainability Company

In September 1999, Dow Jones created an index to track the performance of leading sustainability-driven companies. The new Sustainability Group Index represents the top 10 percent of sustainability companies from 73 industries in 33 countries around the world. The birth of the index is a strong signal to business leaders that Wall Street is increasingly enamored of sustainability's value-creating potential.

Dow is one of the 227 companies worldwide named to the index. Inclusion in the index follows the company's longstanding commitment to sustainable development.

For more than 10 years now, Dow has led the way in the policy development of sustainable development — through its involvement in the World Business Council on Sustainable Development (WBCSD) and the U.S. President's Council on Sustainable Development.

Dow is also a leading proponent of Responsible Care®, now adopted by 42 chemical industry associations around the world. As part of Responsible Care®, Dow has formed 27 community advisory panels around the world to dialogue with those interested in sustainable development.

Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Some recent examples of sustainable development thinking at work in Dow include:

- making plastic from corn — a renewable resource;
- developing an insect control product made from natural fermentation; and
- creating a European ValuePark next door to BSL that creates more jobs and investments, reduces transportation costs and fuel consumption in transporting Dow products, and reduces the risks associated with transporting chemicals over long distances.



Environment, Health & Safety Timeline

1990s

Union Carbide

1991

Union Carbide earns the CMA's Lamont Dupont Safety Award for the greatest improvement in reducing recordable injuries over a one-year period.

1992

Union Carbide exceeds its voluntary pledge, initiated under the U.S. Environmental Protection Agency's 33/50 program, to reduce releases and increase the beneficial reuse of 17 chemicals by at least 50 percent.

1996

Carbide sponsors the first international Responsible Care®/Hazardous Materials training program in Colorado. More than 85 participants from around the world attend. This event is now held annually.

1998

Union Carbide receives the Chemical Education Foundation's Product Stewardship Award, given in recognition of Carbide's disciplined annual product risk characterization/risk management review process. The award also recognizes Union Carbide for the development of lower toxicity alternative products and the proactive formation of community advisory panels (CAPs) at every major plant location in the United States by 1993.

Dow

1995

Dow strengthens its public commitment to the reduction of dioxin from the environment. Through an ambitious strategy of process improvement and technological innovation, Dow commits to reducing its dioxin emissions by more than 90 percent by the year 2005 at a cost of approximately US\$250 million.

1996

Dow announces 10-year Environment, Health and Safety goals.

1997

In August 1997, approximately 24,000 former banana workers from nearly a dozen countries enter a US\$41.5 million settlement with Dow, Shell Oil and Occidental Petroleum. The workers allege personal injury as a result of exposure to 1,2-dibromo-3-chloropropane (DBCP), a fungicide product used on bananas and other crops during the 1960s and 1970s.

1999

Dow launches its first Public Report on the theme of sustainable development.