



PREVENTION

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Office of
Pollution Prevention

The 13th Annual Governor's Awards for Outstanding Achievement in Pollution Prevention

On October 27, 1999, Governor Bob Taft presented the 13th Annual Governor's Awards for Outstanding Achievement in Pollution Prevention to nine organizations.

"This year's recipients have demonstrated how pollution prevention provides a common sense approach to protecting Ohio's environment by saving companies money and protecting Ohio's natural resources for future generations," said Governor Taft. "I commend them for their achievements."

Recipients of this year's awards are:

- **Lear Corporation** (Fulton County), a manufacturer of automotive interior door trim panels and sun visors, for implementing process and material improvements to minimize waste of adhesive material used in producing interior door panels. Within one year, Lear Corp. reduced air emissions by 87 percent and the amount of hazardous waste disposed by 95 percent. In addition, the facility's employees are no longer exposed to methyl ethyl ketone, toluene, hexane and other potentially harmful solvents. Lear Corp. has saved more than \$100,000 in raw material expenses alone. The facility's hazardous waste disposal costs dropped from \$20,000 per year to less than \$1,500 per year – a 90 percent savings.



- **American Electric Power, Muskingum River Plant** (Washington County), for implementing a process improvement that reduced river water consumption by 1.25 million gallons per day, reduced the use of chemicals and hazardous substances, and expanded the company's recycling efforts. By implementing this process, the plant reduced its sulfur dioxide emissions by 2,562 tons, ash by 4,370 tons, carbon dioxide by 88,848 tons, hydrochloric acid aerosol by 69,211 tons, and hydrofluoric acid aerosol by 5,047 tons. From 1996 to 1997, emissions from the use of chemicals and hazardous substances were reduced by 92.5 tons of sodium hydroxide and 114.8 tons of sulfuric acid.



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Governor Bob Taft recognized the award recipients' achievements, along with Ohio EPA Director Christopher Jones.



- **Core Materials Corporation** (Franklin County), which manufactures compound and fiberglass-reinforced plastic products, for eliminating the use of chlorinated solvents in its process. This eliminated emissions of a hazardous air pollutant (79,000 pounds per year). The company also saved \$50,000 in hazardous waste disposal costs from 1996 to 1997.



- **General Extrusions Inc.** (Mahoning County), an aluminum extruding facility, for reducing toxic chemicals and metals by substituting products, reducing process water usage in the anodizing department, converting to powder coating from wet spray, and reducing paper and wood waste disposal. The company has saved \$1.4 million from the water program alone.



- **The Hoover Company** (Stark County), for reducing air, waste and water emissions by more than 90 percent, and reducing hazardous waste generation and Toxic Release Inventory emissions by 97 percent in the last 10 years. The company has accomplished this by redesigning its process to reduce the amount of water used, and reformulating its product to reduce the amount of hazardous waste generated. In addition, Hoover eliminated the use of solvents in its paint line. The water cost savings has been more than \$100,000 annually.



- **Moellering Industries Inc.** (Hamilton County), a manufacturer and distributor of cultured marble vanities and laminate countertops for kitchens and bathrooms, for conducting a voluntary environmental audit of its operations and implementing product substitutions, capital equipment improvements, and recycling and reuse programs to reduce the pollution the company generates. The company has reduced the use of hazardous air pollutants by nearly 20,300 pounds, and



eliminated the use of 28,000 pounds of acetone annually. Moellering has saved about \$9,000 because it is using less adhesive.

- **121st Air Refueling Wing, Ohio National Guard** (Franklin County), for eliminating ozone-depleting chemical purchases, minimizing the use of toxic chemicals, and minimizing the generation of hazardous and solid wastes. The 121st Air Refueling Wing reduced the amount of hazardous waste generated from 108,603 pounds to 10,064 pounds in 1998. In addition, the amount of material being recycled has increased from less than 20,000 pounds in 1993 to more than 346,000 pounds in 1998.



- **Neaton Auto Products Manufacturing** (Preble County), for reducing hazardous waste, conserving energy, and implementing recycling and problem-solving techniques to reduce pollution. For example, the company implemented a new reaction injection molding process that replaced the use of CFC R-11 with a water-based process. The company replaced manual gun cleaning with automatic cleaning units in the reaction injection molding process, and is now reclaiming 100 percent of the thinner used in the cleanup process. Neaton Auto Products has upgraded its office and plant lighting fixtures to use energy-efficient lighting systems. Through the company's waste minimization, regrinding and recycling efforts, Neaton Auto Products reduced its landfilled solid waste by 1,967 tons in 1998.



- **The Regional Ozone Coalition, Ohio-Kentucky-Indiana (OKI) Regional Council of Governments** (Hamilton County), for implementing the gas cap replacement program. Through this program, motorists had the opportunity to voluntarily have their vehicle's gas cap tested and replaced, if necessary, for free. OKI targeted



motorists who owned vehicles with 1971-1973 model years with a direct mailing, since those vehicles are not required to undergo Ohio's vehicle emissions testing program. Approximately 23,000 gas caps were given to vehicle owners in the Cincinnati metropolitan area in 1998. This eliminated an estimated 3.5 tons of hydrocarbon emissions daily, and almost 1,300 tons annually. In conjunction with the region's regulatory requirements and voluntary efforts, the gas cap replacement program helped the Cincinnati area demonstrate attainment of the ozone standard and maintain a healthy level of air quality.

Criteria for selection of the Governor's Awards for Outstanding Achievement in Pollution Prevention include: the overall effort to reduce waste at the source, or recycle or recover materials; the program's innovation, cost effectiveness, and environmental benefits; ability of the program to serve as a model for others; and effectiveness in promoting prevention as the preferred long-term approach. In addition, the efforts should be voluntary and in advance of regulatory requirements, and the nominee should have a good environmental compliance record.

Participants in the *Ohio Prevention First* initiative receive additional consideration, and their membership enhanced their nomination. *Ohio Prevention First* is a voluntary planning initiative seeking a reduction in pollution generated throughout Ohio. This initiative provides an important opportunity for Ohio organizations to take a leadership role in environmental protection without the need for additional regulatory mandates. [General Extrusions Inc.](#), is an *Ohio Prevention First* participant.

A total of 166 companies participating in *Ohio Prevention First* have reduced 48,895 tons of hazardous waste, 1.7 million tons of solid waste, and 186 million pounds of Toxic Release Inventory wastes, and have committed to reducing more by the year 2000. Companies also have estimated that more than \$181 million in cost savings will be realized through these efforts.

The Governor's Awards have been coordinated by Ohio EPA for 13 years to demonstrate how pollution prevention can be good for both the environment, business and beyond.

For more information, contact Howard Dong, Ohio Environmental Protection Agency, at (614) 644-3469.

Web site: www.epa.state.oh.us/opp/gov/gov99_1.html

GM Establishes the Benchmark for Sustainability Reporting



DETROIT, Jan. 5 -/E-Wire/-- General Motors (NYSE: GM) has issued its sixth Environmental, Health and Safety report, titled "Steps Toward Sustainability," in which it describes its environmental, social and economic objectives and practices in working toward sustainable development. Sustainability is a management framework that drives continuous improvement in GM's daily business.

The report has been issued annually since 1994 as an internal and external business management tool to track environmental and health and safety performance. It contains GM's vision and direction in integrating environmental, social and economic objectives into its daily business decisions and future planning activities.

"This report demonstrates that we recognize the importance of public accountability," said Dennis R. Minano, GM vice president and chief environmental officer. "We believe that one of the most valuable ways of providing reliable information to the public is through a corporate environmental report such as this, one that clearly states our objectives, highlights our progress and acknowledges the challenges we face."

Being accountable and providing reliable information in a credible manner is why GM has always published its environmental report in collaboration

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Extended Product Responsibility, an Emerging Environmental Principle

can help businesses spark product innovation, cut costs, and enhance customer loyalty, while growing market share at home and abroad.



Making Product Systems a New Focus

Worldwide demand for more complex products, coupled with the challenge of sustainable development, highlights the limits of traditional environmental protection strategies.

End-of-pipe emissions controls generally address environmental impacts at individual industrial facilities. But the diffuse impacts from products themselves (whether from obtaining or making raw materials, manufacturing, or product use and disposal) are not fully addressed by these facility specific strategies.

A new emphasis on “greening” product systems is emerging as a means to advance pollution prevention and resource conservation in a more holistic and global fashion. This thinking is having powerful implications in the global marketplace. One manifestation is the growing trend in Europe to mandate producer take back and recycling of products at the end of their useful lives. This approach, known as “extended producer responsibility” is intended to reduce waste, boost recycling, and drive environmentally conscious design. Some Asian countries, as well as several Canadian provinces, are implementing or considering producer responsibility mandates as well.

In the U.S., a different concept is taking hold. “Extended product responsibility” recognizes that manufacturers have considerable ability to reduce the life-cycle impacts of their products. However, it also recognizes that lasting and substantial environmental improvements in product systems can only occur with the combined expertise, ingenuity, cooperation, and commitment of all the actors in the product

chain from suppliers, designers, manufacturers, and distributors to retailers, customers, recyclers, remanufacturers, and disposers. While reducing end-of-life product waste is an important part of extended product responsibility (EPR), identifying other important life-cycle environmental impacts of

products, such as energy efficiency, is also integral to the concept. In this sense, EPR applies a life-cycle approach to “greening” product systems. EPR is related to several familiar environmental policies and trends: pollution prevention, design for the environment, “greening” the supply chain, product stewardship, eco-efficiency, and sustainable development. What distinguishes EPR from these concepts is its focus on product systems and engaging all players in the product chain. EPR is a means for making product systems sustainable.

Consumers and Governments Are Also Critical Players for EPR

In keeping with the principle that responsibility is “shared,” U.S. EPA is promoting actions that different players in the product chain can take to reduce the environmental impacts of products. Examples include giving consumers better economic signals to reduce waste through variable rate pricing for garbage disposal and working to ensure that governments buy environmentally preferable products and reduce regulatory barriers to recover products at the end of their useful lives.

Why Should My Company Consider EPR?

Many companies have realized important product improvements enhanced reliability, performance, and energy efficiency by applying EPR. By bringing more value to customers through greener products, companies can earn greater

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customer satisfaction and loyalty. In addition, reducing toxics in products helps reduce potential future environmental liabilities. EPR also can save companies money through increases in efficiency and recovery of previously wasted materials. Many major manufacturers are realizing that, in the long run, it is more efficient to reuse certain components and recapture the value added during the original manufacturing process. More information can be found at www.epa.gov/epr/.

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with CERES, the Coalition for Environmentally Responsible Economies, a nonprofit coalition of more than 40 institutional investors, environmental and religious groups and more than \$200 billion invested in assets.

Pilot Testing the Global Reporting Initiative

The Global Reporting Initiative (GRI) is a multi-stakeholder collaboration, convened by CERES and made up of numerous organizations, united to develop a common framework for global sustainability reporting. GM, as part of the steering committee, took a leadership role in helping to develop the GRI, and is one of 20 companies pilot-testing the guidelines. Issues and indicators reported using these guidelines are not limited to environmental performance, but also include social and economic performance and indicators. The guidelines provide a standard global framework for reporting such issues. “Most companies realize they cannot ignore the public request for some sort of reporting on their programs toward sustainability,” said Robert Kinloch Massie, executive director of CERES. “With the GRI, they can satisfy that demand with a single document.” The 1998 GM Environmental, Health and Safety Report is the result of GM’s pilot testing of the GRI guidelines.

“In pilot testing the GRI Sustainability Guidelines, GM continues to display the leadership it has shown since the onset of the GRI,” states Massie. “This report furthers GM’s reputation for quality environmental reporting and explores how GM is beginning to grapple with the concept of sustainable development. CERES anticipates continued leadership from GM, and looks forward to the company expanding its coverage of international operations data in future reports.”

Supplier Initiatives

Among the many programs GM has implemented is its Supplier Environmental Advisory Team, which is comprised of supplier members of GM’s Supplier Council and a broad segment of GM representatives. GM is soliciting feedback on suppliers’ implementation of an environmental management system and has also announced plans to require its suppliers to certify the implementation of environmental management systems in their operations, in conformance with ISO 14001, by the end of 2002. GM is the first automaker to require such certification.

Reducing Non-Product Output in Plants

Other environmental initiatives detailed in the report include GM’s aggressive non-product output reduction goals. GM defines non-product output (NPO) as all waste streams that are not incorporated into the final products of its operations. NPO consists of air emissions, water emissions and solid wastes. To realize both the environmental and the economic benefits of reducing raw material dependence, the priorities for reducing non-product output are through source reduction and internal reuse and recycling of waste materials. For example, GM has introduced an innovative program to recycle used industrial oil and oily wastewater. The program will recycle nearly 57 million liters of oil waste. Because the waste would normally be burned as industrial fuel, this program will reduce carbon dioxide emissions by 49,500 metric tons per

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year. GM voluntarily reports greenhouse gas emissions from its facilities to the U.S. Department of Energy, and to the Canadian government.

Product Initiatives

Another example of a GM environmental initiative is a program at GM Truck Group called Green Initiatives, which was piloted on the 1999 Chevrolet Silverado and GMC Sierra pickups. The process encourages design engineers to factor environmental considerations into parts design. The truck is 89 percent recyclable. Overall, GM has an aggressive program to incorporate more recycled content into vehicles and to make the vehicles themselves more recyclable.

All of these programs and more are detailed in the GM Environmental, Health and Safety Report. The entire report is available on-line at www.gm.com/ehsreport.

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Browner Recognizes Some of Nation's most Energy Efficient Buildings

One hundred of the nation's most energy-efficient office buildings received the first ENERGY STAR label for buildings from EPA Administrator Carol M. Browner and the U.S. Department of Energy (DOE).

Through Energy Star programs, EPA and DOE are offering innovative ways for commercial and industrial property owners and managers to

improve energy performance, reduce pollution and significantly improve their bottom line.

“The Clinton-Gore Administration believes that a strong economy and a healthy environment go hand-in-hand,” Browner said, “and every one of the buildings on today's list demonstrates that energy efficiency is good for the environment and good for business.”

“The federal government is embracing the Energy Star Buildings program,” added Deputy Secretary of Energy T. J. Glauthier. “Eighteen of the 100 buildings we are honoring today are federal buildings, reflecting a strong move by the federal government to upgrade its buildings and earn the Energy Star label.”

A recent study of participants in the Energy Star program found that energy-efficient lighting upgrades in 1200 businesses increased their total net worth by \$2.5 billion. Half the upgrades paid for themselves through reduced energy costs in an average of less than three and a half years. Additionally, EPA estimates that if all commercial and industrial building owners implemented ENERGY STAR Buildings, they would yield pollution reductions equivalent to those that would be produced by taking 25 million cars off the road.

The ceremony, jointly organized by EPA, DOE, and the Real Estate Roundtable, is a collaboration between the federal government and senior members of the real estate community. Douglas Durst, President of the Durst Organization, will host the event at his Four Times Square Building, which has been cited by many well known environmental organizations for its state-of-the-art energy efficient features. The Real Estate Roundtable actively involves America's leading public and private real estate owners, advisors, builders, investors, lenders and managers on key tax, capital and credit, environmental and technology issues in Washington.



Some of the buildings recognized today were engineered and constructed with energy efficiency in mind; however, others achieved energy efficiency through renovations such as investments in energy-efficient lighting, machinery, and heating, ventilation, and air-conditioning equipment.

In 1998, EPA and DOE unveiled the Energy Star label for buildings to recognize and promote excellence in strategic energy management, smart business practices, and environmental responsibility. Today, nearly 5,500 companies and public and private organizations have committed to improving their overall energy management by linking up with Energy Star. Their buildings represent 15 percent of all U.S. commercial and industrial building space. Building managers can use EPA and DOE's unique on-line benchmarking tool to compare the energy use of their buildings with others in the market. Buildings scoring 75 or better on the 100-point scale are eligible to receive the Energy Star label.

Three Ohio buildings received the first ENERGY STAR label:

- ★ Huntington Building
Hines, Huntington Bank
Cleveland, OH
- ★ Huntington Center
Hines, Huntington Center Associates
Columbus, OH
- ★ Lausche State Office Building
Ohio Building Authority
Cleveland, OH

For further information on the Energy Star label for buildings visit: www.energystar.gov or call Sol Salinas at (202) 564-9420
e-mail: salinas.sol@epa.gov



USEPA Proposes Environmental Stewardship Program with Metal Casting Industry

Peter Truitt, U.S. EPA

Ohio is the nation's leading metal casting state, with 278 (in 1992) foundries, die casting and investment casting facilities. The U.S. Environmental Protection Agency (U.S. EPA) is proposing a national environmental stewardship program in partnership with states, metal casters, and non-government stakeholders.

The national metal casting industry consists of approximately 2800 foundries, investment casters, and die casting facilities. Metal casting involves pouring molten metal into molds to form products that are used in ninety percent of manufactured items, varying from 400-ton rolling mill housings to engine blocks to tiny electronic devices. In 1995, the foundry, die casting and investment casting industries employed over 200,000 people and produced over \$24 billion of shipments. Strong economic conditions in recent years have helped domestic metal casters, although they face increasing foreign competition.

The Program

U.S. EPA's Sustainable Industry program systematically studies how and why environmental decisions are made in an industry sector, then looks for ways to foster better results at lower cost. For over a year, U.S. EPA has been looking at metal casters' environmental performance and the related interests and concerns of various government agencies. U.S. EPA began the process by teaming with trade associations in summer 1998, touring various kinds of facilities, and interviewing business managers to learn about industry traits, trends, and decision drivers and barriers. Some factors that affect

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environmental decisions include tight profit margins (resulting in part from foreign competition) for many firms, increased customer demand for products on short notice, time-consuming and confusing Clean Air Act requirements, and restrictions on reusing large quantities of spent materials.

In August 1999, industry managers met with U.S. EPA and other stakeholders to decide on 10 priority issues to pursue in Sustainable Industry projects. Four metal casting Sustainable Industry projects are now being proposed to U.S. EPA senior management to address those priorities. The proposals focus on ways to reduce both environmental impacts and regulatory burden through comprehensive environmental assistance, re-examination of certain air pollution and waste

permitting requirements, support for reuse of spent casting materials, and a new performance track system that rewards clean operations. Since Ohio is one of few states that promote beneficial reuse of non-toxic spent materials from foundries, U.S. EPA will be looking at Ohio's experience to determine whether to encourage the practice nationwide.

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