# above and beyond

AWARD-WINNING EFFORTS BALANCE WASTE REDUCTION WITH MEETING INCREASED MARKET DEMANDS

t Navistar, environmental protection isn't just the right thing to do, it also makes good business sense. For a corporation whose vision is to be "the best truck and engine company in North America," achieving the highest environmental standards comes with the territory.

#### **Low-hanging fruit**

Since 1992, Navistar has been able to slash non-hazardous waste generation by 41 percent. Disposal levels of landfill-consuming, trash have dropped by more than 40 percent thanks to aggressive recycling programs. Even the more challenging hazardous waste streams have been stemmed — up to 40 percent over the past six years and progress continues.

The key to this success? A combination of a well-designed, comprehensive environmental management system and facility managers who are given the personal charge and autonomy to accomplish site-specific goals.

"Certainly anyone who has worked within the environmental field over the past 15 to 20 years will admit that much pollution has been eliminated just by virtue of industry focusing on process improvements, raw material substitutions and recycling and reuse programs," says Edith M. Ardiente, P.E., Q.E.P., Navistar's director of environmental affairs. "We refer to this situation as the 'low-hanging-fruit' syndrome.

"But, like other environmentally conscious companies, Navistar doesn't stop at the lower branches," she adds. "Our corporate culture continuously stretches to go beyond the expected to climb ever higher — and seize every opportunity to eliminate waste."

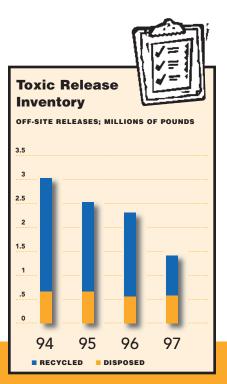
#### **Good business**

A stringent self-auditing system helps Navistar ensure regulatory compliance and continuous wastereduction improvements. In line with its leadership mindset, the company places the highest priority on identifying the root causes of any given problem and then takes steps to make certain the issue doesn't reoccur.

Navistar has clearly committed itself to operating with the highest environmental standards possible. And any company that ends a fiscal year with a cash and marketable securities balance of nearly \$1.1 billion is certainly keeping a close eye on its bottom line and future competitiveness.

Since 1992, the company's pollution prevention efforts have produced cost savings of more than \$45 million, primarily though raw material changes and recycling, thus lowering disposal fees. "Navistar management strategically aligns its environmental, health and safety objectives with core business goals of enhanced productivity and cost competitiveness," explains Ardiente.

She cites as one example a jointventure operation in Texas that assembles severe service trucks.



**From 1994** through 1997 (the most recent results available), Navistar has reduced by 53 percent the release of certain EPA-designated chemicals.

**Note:** All environmental-related charts represent normalized figures, which are actual numbers adjusted to production volumes.

#### POLLUTION PREVENTION AWARDS



Illinois Governor's Pollution Prevention Award

Awarded to Navistar's Engine Plant in Melrose Park, Ill., in the Large Industrial Category



## Recycling Council of Ontario Waste Minimization Silver Award

Awarded to Navistar's Assembly Plant in Chatham, Ontario, for its efforts to reduce waste



# Indiana Governor's Award for Excellence in Recycling

Awarded to Navistar's Indianapolis Casting Corporation in recognition of exceptional efforts in source reduction and recycling



## Partners for Clean Air Award of Appreciation

Awarded to Navistar's Melrose Park Plant for contributions to keeping the air in the Greater Chicago area clean



# Illinois EPA ISO 14001/EMS Pilot Project Charter Member

Navistar's Melrose Park Plant was selected as a charter member for a pilot project to evaluate the effectiveness of environmental management systems in reducing pollution



Awarded to Navistar's Melrose Park Plant for continuous improvement in pollution prevention



"The amount of hazardous waste generated at this facility has been slashed by more than 75 percent since 1997. At the same time, the operation's total cost per truck has dropped by 38 percent."

Navistar also operates two casting foundries, which generate approximately 100,000 tons of waste foundry sand per year and at a cost of more than \$1 million in landfill fees. Working with state legislators, the company has been able to secure approval for reuse and recycling applications, including using the material as a fill for new construction, roads, bridge abutments, parking lots, Navistar's Director of Environmental Affairs Edith M. Ardiente brings more than 20 years experience, both in industry and as a former officer with the U.S. Environmental Protection Agency. "I am proud that Navistar so closely embraces environmental protection as part of doing business. Compliance is only baseline. We strive to pursue continuous improvements, both in environmental performance and in reducing costs."

etc. The result: nearly 70 percent of this waste stream has been diverted from landfills.

#### **Feel the energy**

Like most domestic manufacturers, Navistar is banking on the reduced energy costs and competitive rates deregulation offers. But the company also has a jump start on slashing overall consumption as a way to conserve valuable resources and save money.

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In 1998, Navistar added six awards, listed at the right, from government agencies and conservation groups to its growing collection of environmental recognitions, bringing the company's total to 32 over the past seven years.

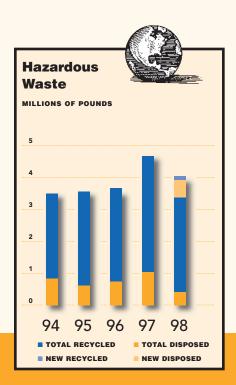
Our corporate culture continuously stretches to go beyond the expected — to climb ever higher — and seize every opportunity to eliminate waste.

## REACHING ABOVE AND BEYOND

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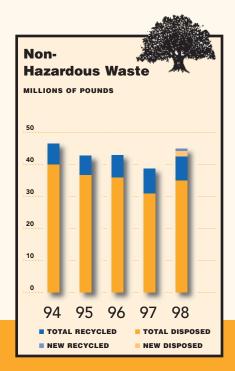
Thanks to extensive energy-use assessments that the company began five years ago, a comprehensive energy business plan is in motion. From conservation projects that require little or no funding to gain incremental savings to longer term projects that will require larger capital outlays, but will deliver significant cost savings, Navistar inspects every aspect of its business to squeeze energy use and costs.

Last year, for instance, Navistar



**The increase** in last year's hazardous waste levels compared to the 1994 baseline resulted from the addition of two facilities: Navistar's new assembly plant in Escobedo, Mexico and a severe service truck plant in Garland, Texas. Without these additional waste streams, the company's 1998 results would have been 16 percent lower

improved the compressed-air system at its engine plant in Indianapolis, greatly increasing the efficiency of the "lifeblood" that drives much of the equipment and pneumatic tools used at the operation. Anticipated energy reductions should reach 7 million kilowatt hours, with total cost savings of \$400,000 annually. At its foundry in Waukesha, Wis., the company now recycles the water it uses to cool the numerous capacitors underneath the huge melting operations.



**Excluding** the new assembly plant in Mexico and the facility in Texas, Navistar's non-hazardous waste disposal levels have decreased 12 percent over the past five years. The year-to-year increase in 1998 was a result of the removal and disposal of old equipment at the company's Indianapolis facility. Since the early '90s, Navistar has garnered more than a few honors for its innovative approaches to pollution prevention and resource conservation. The company has received 32 awards from local, state and federal government bodies and regulatory agencies, both in the United States and Canada.

The company's newest plant, in Escobedo, Nuevo Leon, Mexico, was recently named by Expansión magazine in Mexico as one of ten companies demonstrating the highest respect for the environment, helping to dispel some of the original fears raised by the North American Free Trade Agreement that U.S. companies would move into the country with little or no environmental oversight. In fact, the plant's superior environmental controls prompted the Mexican government to grant Navistar a "sole license," or single environmental permit for the entire facility, in record time.

#### **Really reaching**

Navistar has used the International Standards Organization's 14000 guidelines to benchmark its environmental management system for a number of years. Taking that extra step, both as a way to continuously enhance its own methodologies and as another way to exceed customer expectations, Navistar decided last year to pursue full ISO 14001 certification for all of its manufacturing plants.

"What was interesting is that when our engine plant outside Chicago began the process, state regulators quickly saw the current strengths of the

# MACT Update

# Planning ahead pays off

arly planning and emissions reductions will enable Navistar to comply with the EPA's pending Maximum Available Control Technology (MACT) rules. One aspect of these standards will limit emissions of hazardous air pollutants (HAP), as defined by the Clean Air Act Amendments of 1990.

Rather than wait until the rules are enacted, Navistar has adopted a proactive approach and is already reaping benefits.

#### **Supplying Solutions**

The production volume at Navistar's truck assembly plant in Springfield, Ohio, makes the facility subject to the MACT standards. And the great number of coatings used to paint truck cabs created quite a challenge. Each year, about 200 new colors are requested by customers, resulting in more than 6,000 colors in Navistar's palette.

To lower emissions, Navistar worked with the suppliers of its paints, over-

coatings and cleanup solvents to begin developing new product formulas with no or significantly reduced HAPs.

Changes were also made to the chassis paint line, where the paint booths are in the middle of the assembly line. Originally, no drying ovens were available, necessitating rapid-dry coatings. When the plant added infrared flash ovens to reduce the cure times, it was able to switch the paint for the truck chassis to one that has no HAPs.

#### **Reaping the Benefits**

These new regulatory standards will not be enacted until 2000, yet Navistar is already moving closer to compliance and deriving many benefits, including:

- More than a 70 percent reduction in the company's HAP emissions, as reported in the company's 1997 Toxic Release Inventory.
- Reduced hazardous waste disposal.
- Lowered wastewater treatment costs and elimination of lead as a hazardous waste for disposal.

#### Navistar Energy Conservation Policy



Navistar supports conservation and optimum utilization of all energy sources. The company promotes the efficient and cost-effective use of energy in its businesses. To this end, it is Navistar's policy to:

- Design and develop energy-efficient vehicle and engine products.
- Utilize alternative fuels for vehicle and engine products consistent with cost-effective operation and customer preferences.
- Operate all company facilities and manufacturing processes with energy efficient practices.
- Design facilities and equipment with energy-conserving features.
- Specify use of materials in product designs and manufacturing processes that optimize energy utilization.
- Comply with all federal and state energy regulations.

facility's pollution prevention program," says Ardiente, who notes that the Melrose Park facility reported zero hazardous waste generation for the year, where it produced approximately 3.7 pounds per engine as recently as 1989 (about 170,000 pounds annually). "As a result, the Illinois EPA asked Navistar to serve as a charter member for a pilot project that will evaluate the effectiveness of environmental management systems in reducing pollution," she explains. The company's Waukesha foundry is also participating in a similar pilot initiative in Wisconsin.

#### A higher bar

Based on its many successes in the environmental arena, Navistar continues to pursue aggressive pollution prevention programs which reduce pollution from facilities while improving their bottom line.

How can Navistar continue to achieve exponential reductions in its waste streams? That's probably not the right question to ask the industry's pacesetter. The more appropriate question to pose to the highly committed individuals who drive Navistar is "when are you going to make it happen?"