

Environment Employees are helping the company meet its

aggressive environmental targets by Blythe Jameson



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- Les Weige, Renton's Environment, Health and Safety director

year ago, all major Boeing manufacturing sites were certified to the ISO 14001 international environmental standard. Today, with the framework in place, employees are continuing to eliminate waste, reduce the company's environmental footprint and improve productivity. And that is helping Boeing meet its aggressive targets for cutting energy use, greenhouse gas emissions and hazardous waste, as well as improving recycling rates.

The certification "really has had a ripple effect," said Terry Mutter, director of Enterprise Strategy and Risk Analysis for Environment, Health and Safety. "Cross-functional teams are working together, sharing best practices and finding new ways to drive environmental improvement."

ISO 14001 was released in 2004 by the International Organization for Standardization (ISO). Organizations earning the certification have met a global third-party standard for implementing or improving an environmental management system—a set of processes, systems and practices the organization uses to reduce its environmental impact and to operate more effectively. ISO 14001 doesn't stipulate precise performance targets such as cutting greenhouse gas emissions by a certain percentage. Rather, it strengthens an organization's ability to set its own environmental objectives and to monitor and continually improve environmental performance.

In the past year, employees' efforts have helped additional Boeing sites achieve ISO 14001 certification. These include Anaheim/Huntington Beach, Palmdale and Los Angeles-based subsidiary Continental DataGraphics, in California; Houston; Macon, Ga.; and Wichita, Kan.

Here's how the certification has played a role in helping Boeing and its employees generate measurable environmental improvements.

• Wichita, Kan. Recycling of beverage containers increased 276 percent, the demand for recycling containers in conference rooms and at special events is at an all-time high, and office paper use has gone down thanks to two-sided printing.

"ISO 14001 is driving us to look at the bigger environmental footprint - not only at the site but among our suppliers as well," said Pam Reiz, with the Wichita Environment, Health and Safety team. "We have seen a threefold increase in projects to address not only recycling but also chemical, energy and water reduction."

Involvement in the local community also has increased as employees volunteered more than 700 hours on environmental projects such as planting trees, cleaning the Arkansas

PHOTOS: (Far left) Matthew Portelli of the Boeing Aerostructures Australia facility in Fishermans Bend discards metal fasteners in a recycling bin. ISO 14001 certification led to the creation of standardized recycling bins such as these. ANDREW HENSHAW (Left) Employees in Wichita, Kan., are more active in environment-related community volunteering activities following the site's ISO 14001 certification. BOEING





River, monitoring vehicle exhaust and more.

"We are seeing an incredible level of engagement from employees," noted Bob Martin, Environment, Health and Safety manager for Wichita. "People are looking for ways to carpool, recycle and reduce emissions. ISO 14001 really brought this out."

• Australia. To certify as a single site under ISO 14001, both Boeing Aerostructures Australia locations at Fishermans Bend and Bankstown needed to make improvements to meet the same standard and operate as one organization.

Certifying under ISO 14001 "has standardized our procedures and operations quite significantly," said Alison Stewart, Environment, Health and Safety manager for Boeing Aerostructures Australia. "We've seen an increase in the reporting of environmental issues and the sharing of ideas and recommendations. Employee response has made all the difference."

• Renton, Wash. In planning for ISO 14001 certification, the Renton team worked to ensure environmental improvements continue to be integrated into the 737 production system. These efforts have produced impressive results: Hazardous waste generated per airplane has been cut nearly in half, and solid waste sent to landfills has been reduced by 35 percent.

Other initiatives in oil recycling, building lighting and food waste composting are the result of people working together to identify opportunities for improvement. Recycling used oil eliminated 100,000 pounds (45,360 kilograms) of waste.

Replacing light bulbs with more efficient models in the 4-20 factory building reduced site electricity use by 1.7 percent. Behind-the-counter composting is diverting nearly seven tons (6.5 metric tons) of food waste from landfills per month.

"Everyone is mindful of the impact their actions have on the environment and continuously looking for ways to reduce or eliminate that impact," said Les Weige, Renton's Environment, Health and Safety director. "Besides helping us reduce our environmental footprint, it's making us more efficient and competitive."

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PHOTOS (Above left): David Glenn (left) and Mark Andrews, 737 Materials Management project managers, are shown with ducts wrapped in reusable protective covering. MARIAN LOCKHART/BOEING (Above) Anita Glossop uses a standardized plastics recycling bin at the Boeing Aerostructures Australia facility in Fishermans Bend. ANDREW HENSHAW

Measures of **SUCCESS**

With support from employee activities, projects aimed at reducing Boeing's environmental footprint and improving productivity are generating numerous advances in environmental performance. These efforts include:

Anaheim and Huntington Beach, Calif.: Used energy-efficient light fixtures in parking lots, resulting in an estimated cost savings of \$61,000 per year

Long Beach, Calif.: Reduced annual energy consumption by 20 percent, natural gas by 60 percent and water by 25 percent since 2008; energy savings exceeded \$1 million last year

Everett, Wash.: Reduced solid waste to landfill by 18 percent in 2009 compared with 2008

Florida: The Florida Operations' ISO 14001 Solid Waste Reduction Team and the Paper Smart Team together cut site paper use by 37 percent from 2008 to 2009

Frederickson, Wash.: Reduced power use during weekend and holiday downtimes in 2009, which saved more than \$2,500 per day

Houston: Building 91-51 was the first Boeing facility to achieve Leadership in Energy and Environmental Design (LEED) Gold certification for existing buildings; it has also received an ENERGY STAR label from the U.S. Energy Department

Kent, Wash.: Earned LEED Gold certification for renovation of the 18-26 building and received a Green Business Award from the City of Kent for 2009 environmental stewardship activities

Salt Lake City: Achieved zero waste sent to landfills and cut irrigation water use by 30 percent

St. Louis: Increased solid waste recycling 150 percent since 2007, thanks to employee engagement

In addition, Boeing Defense, Space & Security sites in the Puget Sound region cut hazardous waste output by 38 percent and increased recycling by 15 percent from 2008 to 2009.

- Blythe Jameson