



## Lighting project bright spot in tentative wood products industry

Flakeboard Maintenance Manager Dan Kasten has seen the highs and the lows of the wood products industry in his 21 years at the Albany 21-acre composite wood manufacturing plant. Established in 1960 by Willamette Industries to use lumber by-products and under-utilized wood species to make particleboard, the plant has had three different owners through the years. Weyerhaeuser took over from Willamette Industries in 2002 and then was subsequently sold to Flakeboard Company in 2006.

With five plants in the US and two in Canada, Flakeboard is one of the largest composite panel manufacturing companies in North America. The Albany site is the oldest plant in the United States and has 105 employees working two shifts.

“Flakeboard is one of the leaders in the composite panel industry,” said Bryan Struve, Western Regional Financial Manager. “Our employees have embraced the self-directed, high performance team system Flakeboard introduced.”

In October 2009, Flakeboard installed a new melamine production line at the Albany plant to diversify its product offerings and use more of the Duraflake particleboard it produces. The investment was a positive sign for employees that Flakeboard was willing to invest in the Albany plant in a poor economy, said Kasten.

However, the wood products industry has felt the impact of the housing-industry recession. Flakeboard recently sold its particleboard plant in Louisiana to allow the financial flexibility required to pursue strategic investments and optimization opportunities at the remaining Flakeboard facilities. Kasten watches costs closely and knew there was no extra capital available for improvement expenditures at Duraflake.

But he did take note of an e-mail from Oregon Department of Energy engineer Marty Stipe that he received in February 2011. The state agency had received some federal funds for its State Energy Program (SEP) that would be available through a competitive process to Oregon manufacturing plants for lighting upgrades.

Kasten looked over the RFP and walked through the plant to observe lighting upgrade opportunities. The plant lighting system operated 24 hours/day, 7 days/week. Lighting over the manufacturing lines requires special shielded expensive lights that weren’t appropriate for motion sensors.

However, he noted that 124 of the light fixtures in the plant, primarily 400 Watt high pressure sodium and 400 Watt metal halide, could use less expensive energy-efficient T-5 fluorescent lights and motion sensors so the lights could be turned off when no one was in the area. He knew the

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 - Dan Kasten  
 Maintenance Manager



**Dan Kasten, Flakeboard maintenance manager, left, shows new plant lighting to Shanda Shribbs, Oregon Dept. of Energy project manager, center, and Christina Maples, Oregon Dept. of Energy accountant. State Energy Program funds helped pay for the more energy efficient lights. The particleboard plant has been in Albany since 1960 and employees 105.**





**ODOE Project Manager Shanda Shribbs, left, and ODOE Accountant Christina Maples, right, review project documentation with Flakeboard staff as part of the monitoring of federal State Energy Program. Second from left is Maintenance Manager Dan Kasten, Plant Manager Dave Leding, and Western Regional Financial Manager Bryan Struve.**

energy savings for the lighting retrofit would be good, but the project cost was estimated to be \$56,369 and there were no funds allocated for this capital improvement.

The more he considered the project, the more he realized that there would be a good payback for Flakeboard. He contacted the plant's program delivery contractor, RHT and inquired about its incentive through Energy Trust of Oregon for lighting upgrades. The news was good. The majority of the project cost would be reimbursed by the Oregon's Department of Energy's SEP grant, if awarded, and the Energy Trust incentive.

Kasten got management's approval to go forward. He applied for the grant and received notice that the firm would receive \$32,740 in SEP funds that he had applied for. The Energy Trust incentive was \$23,629. Savings are expected to be excellent—an estimated 382,193 kWh per year for an annual savings \$20,252. The upgrade also displaces 145 tons of carbon dioxide emissions.

"We would not have done this project without the SEP grant," Kasten said.

He had to turn the project around quickly as the SEP contract was signed in March and the project had to be com-

pleted under contract requirements by June 30. He turned to Olsson Industrial Electric of Springfield, an electrical contractor the firm had used on other projects.

"They were great to work with," Kasten said. "We have a good track record with them where they have done similar projects in the past with no problems."

Once the lights and sensors went in, Kasten and the maintenance department worked with plant employees to adjust the lights.

"There were some complaints about the motion sensors. Some only worked when you approached them from a particular direction," Kasten said. Adjustments were made. A few lights had to be lowered in some areas where rafters blocked the light. Now, the lights and sensors, all US-made products, are operating well.

Kasten said the old lights had an orange glow. The new lights have a white light that is much easier on the eyes.

Struve noted that the new lights have provided an unexpected benefit when customers take tours of the plant. For a plant that only manufactures product when an order is placed, it is crucial that customers like what they see.

"Customers see a bright, clean, modern facility," he said. "It's much better now. We are very thankful for the State Energy Program grant and Energy Trust incentive to make this possible."



**Particleboard from Flakeboard's Albany plant.**

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