



Addressing the lean symposium audience is Dr. Darlene Williams, assistant secretary for policy research and development of the U.S. Department of Housing and Urban Development.



Keith Holdbrooks (left), president and CEO of Southern Energy Homes, Inc., and Woody Bell, president of manufacturing for Palm Harbor Homes, discussed how lean is changing their approaches to factory home building. Both men talked about how lean is helping their companies tap into a tremendous resource – the people on the production line.

Lean Factories Cut Costs, Boost Production

By Jordan Dentz and Mike Blanford
Partnership for Advancing Technology in Housing (PATH) Partners

AUSTIN, TX—Lean production techniques have tremendous potential to boost the efficiency and quality of factory home building operations, noted Dr. Darlene Williams, assistant secretary for policy research and development of the U.S. Department of Housing and Urban Development (HUD), at a recent symposium on manufactured housing.

Held here at the Manufactured Housing Institute's winter meeting, the Factory Building Symposium on Lean Production attracted some of the biggest names in the industry. These companies have been working with HUD's Partnership for Advancing Technology in Housing (PATH) and the Manufactured Housing Research Alliance (MHRA) to incorporate lean production methods into their home building factories.

Originally developed by Toyota, lean production strives to eliminate wasteful practices in time, money and materials while developing a factory culture of continuous improvement. The streamlined processes have long been used in other industries -- particularly the car industry -- to improve quality and cut production costs. Just a few examples include: ordering the workplace to maximize productivity by having "a place for everything and everything in its place;" arranging the flow of materials to minimize travel distances; and cutting back on unnecessarily large inventory levels.

While the use of lean production as a tool for factory homebuilders is in its early stages, the potential benefits, judging from the experiences of nine plants, are impressive.

"If we all get on board with lean, we will change the way the industry does business forever," says Dennis Jones, president of R-Anell Housing Group, which participated in a lean training program with MHRA last year. "We will dramatically reduce the cost of building our houses and [enhance] our competitive position in the marketplace," he concluded.

Teams from nine plants reported on some of their accomplishments at a symposium in January. Among them:

- Southern Energy Homes (Addison, AL) increased production while reducing labor in the wall department, saving \$73,000 annually.
- Hi-Tech Housing (Bristol, IN) is saving \$35,000 per year in its wall department through improved productivity.
- Palm Harbor Homes (Plant City, FL) has saved over \$108,000 to date. In the frame shop alone, lean production techniques cost less than \$1,000 to implement, whereafter annual labor savings of \$36,000.
- Chelsea Modular Homes (Marlboro, NY) reduced drywall defects by 85% with no added costs.

"Among the speakers was a consensus that lean factory home building is potentially the best solution to fulfilling housing needs," says Mike Lombard, continuous improvement manager for Palm Harbor Homes. For Palm Harbor, lean techniques have created standard work procedures and a structured process for improvement. They have also improved the work environment, which they expect will help reduce employee turnover.

In 2007, MHRA will offer both basic and advanced lean training workshops tailored to modular and manufactured home producers. These hands-on workshops and support programs are designed to help implement lean production techniques in plants with little or no lean experience.

"Our philosophy is not to go into a plant, make some efficiency improvements and then leave, but to teach plant employees how to lead a lean transformation themselves," says Emanuel Levy, MHRA executive director.

For more information on MHRA lean program opportunities, visit www.mhrahomes.org, call 212-496-0900 ext. 13 or email jdentz@research-alliance.org, Jordan Dentz, MHRA lean program manager, or circle Reader Service No. 83.