

NEW BUILDING TECHNIQUES

to Improve Customer Satisfaction

The Manufactured Housing Research Alliance has been working with eight manufacturers to incorporate lean production methods into the manufactured and modular housing industries.

Lean processes have long been used in other industries to improve quality while reducing the overall cost of production. Because the factory-built home industry has constructed homes in

much the same manner for years, lean production methods have the potential to dramatically change the industry.

One of the manufacturers that has been an early adopter of the technology is Southern Energy Homes, which plans to roll out lean production methods in all seven of its home plants.

Like most factory home building operations, Southern Energy did not have a process in place for identifying production inefficiencies and continually making improvements. Lean changed that and the changes came quickly. The Southern Energy "Lean Team," led by Lamar Dickerson, applied lean principles and started creating a highly disciplined process for rooting out practices that cost time and money without adding value.



A RAPID PROCESS IMPROVEMENT (RPI) EVENT WAS PERFORMED IN SOUTHERN ENERGY'S INTERIOR DOOR DEPARTMENT. A NEW WORK TABLE WAS CONSTRUCTED TO STORE RAW MATERIALS AND TO FACILITATE LESS MOVEMENT. THE AREA WAS REARRANGED TO ALLOW MATERIALS TO FLOW THROUGH THE WORK AREA TO THE PRODUCTION LINE.

The Manufactured Housing Research Alliance (MHRA), the research arm of the manufactured housing industry, provides content for **Technologies**.

■ **Technologies** highlights the research of MHRA and examines other research and development activities throughout the industry.

■ For more in-depth information about research in the factory-built housing industry, or to find resources mentioned in **Technologies**, visit the MHRA Web site.



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Three Reasons to Build Lean

Lamar Dickerson gives three reasons that Southern Energy has made a companywide commitment to using lean building techniques.

1 Our objective is, "Quality is a way of life." We are using lean methods as the structure for improving as a company and to produce the best product possible.

2 Employees are the front line of our "quality control program." When our associates are satisfied

and happy with their work environment and with us as an employer, quality improves, service cost decreases and customer satisfaction increases.

3 We believe that productivity will increase and profitability will improve if we look deeper into the processes, develop better techniques, incorporate better tooling, and create a flow to take materials through the manufacturing process with the absolute minimum number of steps.



FREE PROMOTIONAL MATERIALS: Stand Out with Energy Star



Home shows are an opportunity for manufacturers to showcase their products and differentiate themselves in the market place. And if you're certified to produce Energy Star homes, the nationally recognized energy efficiency program, home shows are an ideal venue for touting the superior performance of your homes.

To help plants effectively present the benefits of buying an Energy Star home, MHRA is providing Energy Star promotional materials to home manufacturers at no cost. The kits include consumer brochures and posters that highlight the key features and benefits of Energy Star homes, a static cling window decal of the Energy Star logo and a DVD sales video featuring testimonials from actual Energy Star homeowners (visit www.mbrahome.org to view descriptions and images of the items).

If you are an Energy Star Certified home manufacturer and will be displaying homes at upcoming shows, contact Gwynne Koch at gkoch@research-alliance.org for more information about receiving free promotional kits. ■

Manufacturers Participating in Lean Production and Their Lean Advocates

Cavalier Homes
Addison, Ala.
Michael Wade

**Chelsea Modular
Homes**
Marlboro, N.Y.
*Kenneth
Hutchings*

Clayton Homes
Andersonville,
Tenn.
Kevin Longmire

**Four Seasons
Housing Inc.**
Middlebury, Ind.
Brent Bardo

**Hi-Tech Housing
Inc.**
Bristol, Ind.
Butch Berlin

**Palm Harbor
Homes**
Albemarle, N.C.
and Plant City, Fla.
*Tommy Rogers
and Michael
Lombard*

R-Anell Housing
Denver, N.C.
Clifford Robbins

**Southern Energy
Homes**
Addison, Ala.
Lamar Dickerson

According to Dr. Michael A. Mullens, associate professor at the University of Central Florida and one of the MHRA project lean team facilitators, "Southern Energy's lean efforts are leading to process standardization, achieving a higher-quality home while allowing for a workforce reduction."

"We are using 'lean manufacturing' as a vessel to continually improve as a company and produce the best product possible," said Dickerson.

Dickerson explains that the Rapid Process Improvement (RPI) events, which are a hallmark of lean production techniques, have cost Southern Energy from as little as \$150 upward to several thousand dollars to complete.

"We are currently performing new time studies where RPI events have been performed and while we are too new in this process to have quantified the impact, we have begun to see productivity gains and improved quality

levels," said Dickerson.

The lean production processes also have another effect: they make the work load for employees more comfortable and efficient, which translates to more satisfied line workers.

"When our associates are satisfied and happy with their work environment and with us as an employer, quality, service and customer satisfaction improves," said Dickerson. ■