

### MHRA Conducts First "Lean in Action" Program

Success breeds success. With nine leading manufactured housing plants showcasing their achievements in implementing lean production during the Manufactured Housing Research Alliance (MHRA) Lean Symposium this past January, a major change in factory building is underway.

Lean production is a series of techniques and business strategies based on the Toyota Production System that has



The Pipe Factory simulation demonstrated lean concepts and was a highlight of the Lean in Action Program.



**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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the potential to dramatically reduce costs and improve the quality of housing production. MHRA has been at the forefront of developing and implementing lean techniques in the factory homebuilding industry.

The first step in implementing lean is perhaps the most critical: understanding the core elements of lean production and developing a strategy to effectively and quickly implement lean methods. In order to do this, senior management must first recognize how lean techniques can create positive and lasting cultural changes within the plant.

To help in this first step, MHRA created the *Lean in Action* program, a one-day immersion into lean production designed for senior management. The program was launched at the Clayton Homes Appalachia plant near Knoxville, Tenn. in late July. Appalachia is one of nine plants that participated in MHRA's lean production pilot program last year and is well along in the process of implementing lean processes. The *Lean in Action* program was attended by representatives from six companies.

Participants in the *Lean in Action* program saw lean production techniques

working in the plant and spoke with plant workers involved. They also participated in a hands-on simulation (the Pipe Factory) that is used by a number of factory builders at the forefront of lean building to drive home the fundamentals of lean production during in-house training programs.

"The Pipe Factory would be a huge benefit here...we will use it," exclaimed Ken GelJack, vice president at Hi-Tech Housing in Bristol, Ind. Hi-Tech was one of the original nine plants that worked with MHRA in 2006. According to GelJack, "Attending the *Lean in Action* program was helpful to get lean production back on the front burner at Hi-Tech. We were going strong at first, but lacking a formal process, such as we saw during the program, it petered out somewhat. Since returning from the program, our lean production activities have been reinvigorated."

The program also included a briefing on lean production basics, a presentation of the achievements of some of the nine plants that, with MHRA, pioneered lean production techniques in factory homebuilding in 2006, and a series of mini "kaizen" events (also known as

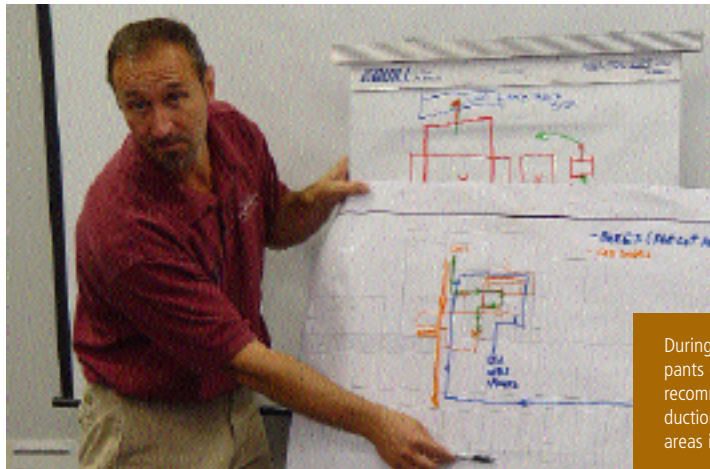
rapid process improvement events).

Kaizen is a Japanese term used in lean production referring to a focused analysis and redesign of a specific production area with the goal of making targeted improvements. Typically, kaizens are conducted by a cross-section of plant employees. During the *Lean in Action* program, participants ran three mini 90-minute kaizens in the Clayton plant (in the cabinet shop, partition wall build and top build areas) guided by MHRA lean production experts and Clayton managers.

For more information about future *Lean in Action* programs and other MHRA services to help implement lean production techniques, please visit the MHRA Web site at [www.mhrahomes.org](http://www.mhrahomes.org) or contact Jordan Dentz at 212-496-0900 x13.



Participants saw first-hand the effects of lean production changes made in the Appalachia plant.



During the mini-kaizen, participants developed and presented recommendations for lean production improvements to three areas in the Appalachia plant.



### Model Manufacturer's Installation Manual Nears Completion

MHRA has released for public review a draft of the *Model Manufacturer's Installation Manual for HUD-Code*

*homes*. The model is a template that HUD-Code home manufacturers can customize to fit their design and construction practices. Since it is based on HUD's installation standards scheduled to be completed later this year, this will simplify the process for all manufacturers who need to modify their installation instructions to conform to the new standards.

Home installation can be a weak link in the chain of providing quality homes. Most installers set up homes from a variety of manufacturers,

requiring that they master several, often very different, installation manuals that vary in approach, content, organization and degree of detail. The model manual will provide a consistent format, making it easier for installers to use multiple manuals and provide a consistent base for installer training.

Anyone who wishes to review the draft manual may download it from the MHRA Web site at [www.mhrahomes.org](http://www.mhrahomes.org) and submit comments as directed. For more information, contact Jordan Dentz at 212-496-0900 x13. ■