

Shaw News Release

Contact: Steve Bradfield, 706/275-3269

Shaw's Energy Conversion Project to Save Money, Reduce Waste

Dalton, GA - Shaw Industries' Plant 81 has embarked on an innovative and ambitious project that will convert carpet and wood manufacturing waste to steam energy through a process called gasification. The results of this venture will reduce manufacturing byproducts destined for the landfill, produce lower plant emissions, and eventually save up to 2.5 million dollars per year.

Gary Nichols, the Shaw energy manager who heads up the project, reports that the concept for the project has been in the works for more than three years. "This is really a bold undertaking for the company," he says. "We've never done anything like this before, although it is something (Vice President of Manufacturing) Bill Barron has been considering for a long time. In the past three to four years energy costs and technology have come together at the right time to make this a viable project."

In the conversion process, manufacturing carpet waste and post-consumer carpet waste, as well as wood flour (dust generated from trimming during manufacturing at Plant LM), are turned into steam which will be used to power the operations of Plant 81. Developed in cooperation with Siemens Building Technologies, the gasification facility will be adjacent to the manufacturing plant and supervised by Shaw personnel. Construction management will be provided by Shaw Corporate Engineering. Once complete, Plant 81 will provide personnel to run the gasification facility. The facility is projected to be fully operational by the end of 2005.

Barron says the project is estimated to convert approximately 15,000 tons of post-industrial carpet waste, 1000 tons of post-consumer carpet waste, and 6000 tons of wood flour per year. "This represents a huge savings in terms of landfill reduction and energy costs," he says. "In addition, this initiative is extremely environmentally friendly in the cleaner emissions that will result, particularly the tremendous reduction in sulfur dioxide (SO₂)." Carpet and wood wastes burn cleaner than coal, without the heavy metals present in natural coal deposits (supported by ongoing studies conducted by Georgia Tech and the EPA).

The company is studying ways to use the remaining waste by-products, such as filler, that result from the conversion process. Carpet selvage and seam waste are baled and sent to a grinder to separate the fiber from the filler, and the fiber is used in the gasification process. Another by-product is the ash produced through gasification.

Nichols and his team are optimistic they will find a use for these materials in other manufacturing operations.

According to Steve Bradfield, Shaw vice president of environmental marketing development, the gasification facility is a transitional strategy in Shaw's cradle-to-cradle commitment to the future. "The current 'take-make-waste' mentality of the cradle-to-grave production philosophy that continues to accelerate solid waste generation and disposal worldwide can only be reversed when industry begins to make products from safe, healthy recyclable materials," Bradfield says. "These cradle-to-cradle materials, like Shaw's EcoWorx carpet tile backing that won the 2003 Presidential Green Chemistry Award, will allow sustainable recycling of carpet fiber and backing in the future. But the technology to make that leap takes time and capital to develop."

Noted environmental architect William McDonough, author of *Cradle-to-Cradle: Remaking the Way We Make Things*, calls Shaw's gasification plant "a necessary transitional step in diverting the carpet waste stream from landfills, making the material available for higher value recovered uses through sustainable technologies that will see carpet waste as high quality raw material."

Bradfield points out that the infrastructure of carpet collection must be economical and stable to encourage the development and commercialization of true cradle-to-cradle floor covering technologies. "As we help to build this infrastructure, Shaw's gasification plant will recover the thermal energy of carpet waste that would otherwise fill valuable and diminishing landfill space," he says. "It is Shaw's hope that sustainable technologies will make future carpet wastes ideal for closed-loop recycling into carpet or other products too valuable to burn. Meanwhile, gasification offers a high-value, low environmental impact means of collecting and utilizing carpet and wood waste."