



# SONO WAVES

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## **MUSES KICKOFF MEETING HELD IN WISCONSIN**

Neenah Foundry Company hosted the kickoff meeting for the Muses grant participants on October 3, 2005. During the meeting the participants discussed details for implementation of the research funded by NSF GOALI. The research team includes faculty from economics, engineering, industrial ecology, material science and sociology.

The collaborators will work across disciplines to further understand and model the materials handling in the metal casting industry with a focus on iron foundries. They will also develop and assess innovative casting technologies to enable reductions in costs and life cycle impacts. In addition, the team members will evaluate the socio-economic impact of the U.S. metal casting industry on local, U.S. and world economies.

As the Muses grant research progresses, updates will be posted on this web site.

## **R&D**

Dr. Paulsen presented a paper entitled "Field Trials for Sonic Treatment of Natural Gas Storage Wells and Stripper Oil Wells for Well Remediation and Increased Productivity" at the 2005 SPE Eastern Regional Meeting held in Morgantown, WV September 14-16.

The paper described DOE sponsored research from 2000 through 2004 performed by the project team of Furness-Newburge, Inc., TechSavants, Inc. and Nicor Gas to develop a sonic tool to treat underground gas storage wells. The sonic treatment concept is to apply high intensity sound waves to help dissolve and break-up scale that forms at the perforations or the sand face and thereby improve gas/fluid flow. Similarly, the project team tried the sonic treatment concept in a stripper oil well to see if the sonic stimulation would increase oil production through viscosity reduction and opening up blockages in the pores.

Deployed in three separate natural gas storage wells in northern Illinois and a stripper oil well in central Alabama, the sonic tool proved successful in improving productivity in both settings. Additional field trials with varied well geologies need to be conducted with single day deployments to meet the commercial goals of this tool in the natural gas arena. Conversely, oil well deployments trials need to be greatly extended to evaluate the effects of continual well stimulation to prove commercial viability.

## **News and Notes**

### **FNI INVITED TO USEPA FOUNDRY MEETING**

On October 26, 2005, Jim Furness and Dr. Dave Paulsen will participate in a meeting at USEPA in Research Triangle Park, North Carolina. The meeting will focus on ways to reduce emissions of hazardous air pollutants with the use of innovative technologies and binders. After a presentation on Sonoperoxone<sup>(R)</sup>, Jim and Dave will answer any questions from EPA staff as well as other meeting attendees.

Watch for recommendations from the meeting on this web site before the end of the year.

## **MACT ACHIEVED WITH FNI EXPERTISE**

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