



SONO WAVES

A Publication of
FURNESS-NEWBURGE, INC.
Innovative Compliance Strategies for the 21st Century
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News and Notes

...New alternatives to high-powered acoustics have been successfully tested for use in Sonoperoxone® and other applications. Contact FNI to learn more.

R&D Corner

...FNI is working in conjunction with academic and foundry industry partners researching various acoustic stimulation and degassing techniques for molten metal.

...*Read our latest papers!* Call us to receive a copy of Advanced Oxidation research updates presented at the 16th AFS EHS conference, and a paper on the melt energy savings potential of high-powered acoustics.

Out With The Old, In With The New!

Ring in the New Year right by upgrading Ozone Generators in your Sonoperoxone® with our new GEN-4 Ozone Generators to significantly reduce your oxygen consumption

Contact Us Today!

Dr. Paulsen Returns from Sonoperoxone® Start-up in Europe

Dr. David Paulsen, the Vice President and Technical Director of Furness-Newburge, Inc., returned from Europe after consulting on a successful first installation of the Sonoperoxone® system outside of North America. The new Sonoperoxone® system was installed in a large Swedish foundry. Dr. Paulsen met with FNI's European foundry representative, the NovaCast AB team of Ronneby, Sweden. FNI and NovaCast worked closely with European manufacturers to meet EU standards for Sonoperoxone®.



Dr. Paulsen (third from left in back) visits with NovaCast AB

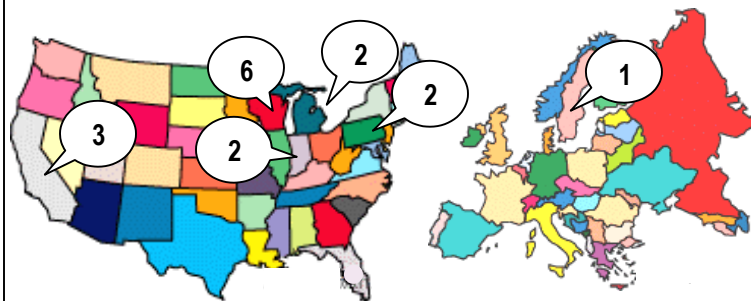
Tests are now being performed by the Swedish foundry to evaluate the benefits of using Sonoperoxone®. FNI expects this European version of Sonoperoxone® to reduce bond consumption by 15-20% and VOC and benzene emissions by 50-60%, very much like its American counterpart.

While in Europe, Dr. Paulsen and NovaCast also visited three other foundries interested in using this technology. Based on his visits, Dr. Paulsen has developed concepts for systems that might be installed by these foundries. Many of the new concepts involve a Sonoperoxone® Blackwater system which adds dust, wet or dry, into the Advanced Oxidation and high-powered acoustic treatment of green sand molding process water. The Blackwater system enhances the environmental and economic benefit of the Clearwater system, the model installed by the Swedish foundry, by allowing direct treatment of the dust itself, not just the process water. American foundries that use a Blackwater system experience 20-30% bond reclamation and 60-70% VOC and benzene reductions.

California Foundry Shows Improvements with Sonoperoxone® Scrubber

Gregg Industries, Inc. in California, a member of the Neenah Foundry Group, has experienced odor and emission reductions since it installed a Sonoperoxone® Core Room Odor Scrubber and Blackwater System. The odor scrubber uses a wet phase scrubber section with sonocatalytically reacted water, ozone, and hydrogen peroxide and an ultraviolet oxidation chamber. The Blackwater portion interacts with the foundry's sand system to reclaim costly mold materials, reduce scrap, and improve overall casting quality. Stack testing showed both a removal of odors usually associated with core-making operations and reductions in volatile organic compound (VOC) emissions from the foundry's sand system. The system, which began as a research project, is the first of its kind, combining both sand system and core-making operations emission control.

Where in the World is Sonoperoxone®?



In addition to the sixteen Sonoperoxone® systems already in operation worldwide, Furness-Newburge is currently designing five more systems in the United States and Canada and three more systems in Europe.