



## PRESS RELEASE

*For Immediate Release*

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**Industrial noise pollution solution:** before and after application of Acoustiblok, sound reading registered an amazing 26-28 dB attenuation, which translates to a human ear perceived noise reduction of 90-percent.

### **Acoustiblok, Inc. Combines its Revolutionary Sound-Abatement and Insulation Materials at Broward County Waste to Energy Plant to Reduce Industrial Noise Pollution**

TAMPA, Florida – Public awareness of the health risks of industry-related noise pollution has never been higher. Industrial plants worldwide are incorporating serious sound abatement strategies into their infrastructure to protect employees and visitors from hearing loss and other medical issues raised by industrial noise pollution.

When supervisors at the South Broward Waste to Energy (WTE) plant in Fort Lauderdale, Florida were faced with a 30-day project to overhaul the plant's turbine, it was determined that the plant's steam bypass system would take over the turbine's waste management responsibilities 24-hours a day for one full month.

The problem with such a transition was the unbearable blare of the bypass system, which channels 900 psi of compressed steam through a 14-inch line and into a 7-foot diameter pipe at a noise level of 126 dB – somewhere between the sounds of an adjacent pneumatic riveter and a jet engine launch.

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The noise was so deafening that even with earplugs, employees and visiting contractors could not spend more than brief periods of time in the vicinity without risking hearing damage. Verbal communication was impossible, even if they shouted, while working on or around the system.

The decision to install Acoustiblok® sound abatement material to the bypass system was made after Acoustiblok's Shawn Saathoff, president/director of Acoustiblok Middle East, evaluated the site and proposed a blanket application of Acoustiblok's 1/8-inch thick proprietary viscoelastic polymer with a sound transmission classification (STC) of 26, unmatched in its versatility. Since the bypass system is composed of pipes elevated more than five stories, Acoustiblok's ease of installation, flexibility, effectiveness, and environmentally friendly properties made it ideal for the job.

The South Broward WTE facility is owned by Wheelabrator Technologies, an OSHA-recognized and award-winning clean energy facilitator. With plants across the United States, Wheelabrator prides itself on its commitment to environmental responsibility, making it a natural match for eco-friendly Acoustiblok, which contains no lead, barium, or asbestos, is UV resistant, impervious to water and mold; and is UL fire rated and classified for wall, floor and ceiling installations as well as industrial applications.

However, while solving the sound abatement issues, a new problem arose: the heat emitted from the compressed steam travelling through the bypass system reached temperatures as high as 350-degrees; Acoustiblok's standard application range is 200-degrees before viscosity is challenged.

After conferring with Thermablok Sales Professional Steve Hibbens, South Broward WTE Maintenance Manager Paul Benton chose to gird the system with a 5mm-thick layer of Thermablok® insulating material before applying the Acoustiblok. Thermablok adapts aerogel technology developed by NASA to create the highest insulating material in existence. Previously, aerogel had been difficult to adapt to most uses because of its fragility. Thermablok overcomes this by using a unique patented fiber to suspend a proprietary formula of aerogel so that it can be bent or compressed while still retaining its amazing insulation properties.

Although this type of project had never been attempted before, both teams gambled successfully on the results of scientific studies performed on both Thermablok and Acoustiblok to determine the best solution to thwart the offending noise and deal with the associated heat issue.

Benton said that the need for noise abatement at the plant had been brewing for some time before the turbine overhaul created the incentive he needed to take action.

One contractor found the extreme, unrelenting howl of the bypass system so difficult to work with, he began to dramatically hike the cost for his crews to work on site.

“Not only had it become a health issue, it had become a financial issue as well,” Benton said. “Contractors were going to charge more to work here, and employees would have to severely reduce their hours to minimize exposure to the noise.”

The massive pipes were enveloped first in 1,280 square feet of Thermablok *High Temp*, then in 1,575 square feet of Acoustiblok by a four-man crew from Coastal Insulation in Pompano Beach, FL. Steve Sill, vice president of Coastal Insulation, said the job, which took three weeks to complete, was imposing only because of the sheer size of the system.

“It was challenging in that we were working off lifts higher than five stories,” he said. “But we were surprised how easy the material was to install, and how well it worked.

“We couldn’t believe the difference,” Sill said after the application of Acoustiblok was complete. “We measured a 26-28 dB attenuation, which was significant enough that contractors could actually hold a conversation while standing next to the structure, whereas before you couldn’t be heard if you screamed.

“This success became even more amazing when the plant manager told us that the factory was running at nearly 50% greater capacity than when the original readings were taken.”

For crews to work under such conditions is actually painful at such a noise level, and studies confirm the adverse health effects of industrial noise pollution on workers in such an environment. Benton, too, was amazed at the results of the black Acoustiblok material seamed with black and yellow Acoustigrip permanent bonding tape, which far surpassed his expectations.

“We wouldn’t have cared if it was magenta with white polka dots, we would use it again, we were so happy with the results,” Benton said.

Acoustiblok is made of a 1/8” (3 mm) thick proprietary viscoelastic polymer material with a high-density mineral content, heavy yet extremely flexible. While other manufacturers of sound proofing materials attempt to stop or absorb sound, Acoustiblok has resolved the problem in a vastly different way:

Through a unique thermodynamic process, Acoustiblok is engineered to transform sound energy into inaudible friction energy as the material flexes from sound waves. One thin layer of Acoustiblok in a standard metal or wood stud wall will result in more sound reduction - and provide more privacy - than 12” (30.5 cm) of poured concrete. (Certified independent lab results.)

For more information, call Acoustiblok at 813.980.1400, visit our website at <http://www.acoustiblok.com>, or e-mail us at [sales@acoustiblok.com](mailto:sales@acoustiblok.com).