

# The Detroit Thermal VOICE

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## Trap surveys promote steam efficiency

**Editor's note:** "Improving efficiency: What you can do" is a new series that will explore actions customers can take to improve the efficiency of their steam systems, reduce their steam consumption – and help control their energy costs. Watch for more money-saving ideas in future issues of The Detroit Thermal Voice.

### TRAP MUSIC

The sounds made by steam traps may not be music to everyone's ears, but to the Detroit Thermal steam technicians who conduct trap surveys at customer locations, traps that are working well make distinctive noises at each step in their operating cycle.

The technicians, using ultrasound equipment and listening to the traps' melodies through special earphones, can tell if a trap isn't opening or closing properly – a sure indication of trouble.

A trap that fails in the open position allows a steady stream of steam to pass through, wasting steam and causing some parts of the building to be too warm. A clogged trap or one that fails in the closed position may result in damage to other steam system equipment and lead to cold spots.

"We have the equipment, experience and expertise to identify potential problems and fix them," said Dave Carman, Detroit Thermal customer service supervisor.

### AN OUNCE OF PREVENTION

Some trap manufacturers recommend that traps be checked as



Mike Hoffman, Detroit Thermal customer service technician examines a trap at a customer's site.

often as twice a year so preventive maintenance can be performed before serious system damage or high steam usage occurs. Detroit Thermal offers steam trap survey services to help customers keep their systems in top working order.

"In a survey, we locate, number and tag every trap so the customer knows where they are and how to identify each one. Then we test each one and report the results," Carman said.

Besides listening to each trap, technicians test ingoing and outgoing temperatures (the temperature should be higher on the ingoing side of the trap).

### EXPERTS ARE AVAILABLE

Customers who do not have staff with the time or expertise to conduct trap surveys can hire Detroit

Thermal to do it. Customers may then choose to make any necessary repairs themselves or contract for repair services.

Customers who undertake trap surveys and repairs often experience changes in consumption, and report that their buildings are more comfortable.

"Just like a car tune-up keeps a vehicle in good running order, a trap survey and tune-up keep a steam system in good operating condition," Carman said.

For more about a Detroit Thermal trap survey, contact Carman at 313.921.1922 or call your Detroit Thermal account representative. ■

# Case Study: New life for historic venerable New Center building on Woodward

The eight-story building at 7310 Woodward Avenue has had an aura of quality about it from its very beginning, in 1913.

Commissioned by Henry Ford and designed by the renowned architect Albert Kahn, the 245,000-square-foot building housed a quality-testing area for the early Ford Motor Company. Over the years, the building's grandeur faded, but its new owner, Avinash Rachmale, president and chief executive officer of Lakeshore Engineering Services, is restoring its architectural beauty while bringing it up to the technological standards of today's modern office facilities.

The building was originally designed to use steam for heat and hot water. As the architects and engineers began planning the renovation, they considered other

forms of energy as well.

"We looked at other possibilities and determined that steam from Detroit Thermal is the best solution," said Tyrone Jarrett Sr., the building's director of operations. "We use steam for heat and hot water, and in the summer steam-absorption cooling provides the air conditioning."

Rachmale, whose civil engineering firm occupies part of the building, agrees that steam from Detroit Thermal is an excellent energy source. "It sure beats the hassle of operating and maintaining an individual steam plant," he said.

## TRAP SURVEY UNCOVERS PROBLEMS

Jarrett monitored the building's steam consumption and he and Rachmale decided to work with Detroit Thermal to find ways to improve steam efficiency. The project began with a trap survey on floors seven and eight, which were the first to be renovated.

"The survey on those floors found a 73 percent trap failure rate," explained Dave Carman, Detroit Thermal customer service supervisor. "Most were failed in the open position so live steam was passing through and being wasted."

The failure rate was so high that Detroit Thermal was asked to replace all the traps. "All of the traps were about the same age and over the years use and chemicals had taken their toll," Jarrett said. "Traps should be inspected regularly and replaced on a regular basis."

As additional floors were renovated, the traps on those floors were replaced as well. The Detroit Police Department will soon take over three floors in the building. Additional space is available for other tenants.

Jarrett worked with Detroit Thermal steam service technicians to implement other improvements, such as isolation valves that divert steam from unused areas. A meter-reading and temperature-reading program also was installed.

"The change in steam consumption is very noticeable," Jarrett said. "We saved about \$38,000 in two months and at the same time kept comfort levels above the Michigan mandates."

"Dave Carman and other members of Detroit Thermal were very helpful and professional."

Rachmale and Jarrett are pleased with the changes to the system. "The steam supply from Detroit Thermal definitely is an economical option," Rachmale said, "and as more companies join the system it will become even more affordable." ■



A steam trap survey was part of the restoration and improvement of 7310 Woodward.

# Navy Seabee glad to be back after tour of duty in Iraq

During his 14 years in the United States Navy – six on active duty and the last eight in the reserves – Matt Howard has been deployed to the Mideast three times. But none of those deployments was as difficult as his most recent tour, when his reserve outfit was called up for active duty in the Iraq war.

“The other times there was no direct combat going on,” Howard said. “This time there was a lot more danger and tension all the time.”

Howard, an electrical instrumentation technician, returned to Detroit Thermal May 29 after spending six weeks in advanced combat training and six months on the Iraq-Kuwait border. As a Navy Seabee of Naval Mobile Construction Battalion 26, he served as project manager for the battalion’s assignment of building roads, border crossings and a checkpoint along the volatile frontier.

“We provided construction support for Army expeditionary bases,” Howard said. “We also helped get the soldiers outfitted and their vehicles armored before they went further into Iraq.”

Howard says the change from military life in one of the most dangerous areas of the world to civilian life is difficult. “I’m still adjusting,

but I’m so happy to be back with my family and back at work,” he said.

Howard’s family grew while he was away: His son, Nathan, was born while he was on active duty, and Howard didn’t see him until he was three months old.

“That was very hard for me and for my wife,” Howard said. Howard and his wife, Kathleen, also have two daughters, three-year-old Mackenzie and 13-year-old Haley.

Being away from his family, especially at such an important time, was a strain for all of them, Howard said. “We had email and telephones, but my group moved around Kuwait quite a lot so we didn’t have access to them all the time.

“Kathleen told me that many Detroit Thermal people stayed in touch with her while I was away and that Brian Brown (Detroit Thermal human resource representative) was very helpful, especially in dealing with health insurance and other issues,” he said. “Ron Simpson, our rep for Utility



Workers Union of America, Local 223, Power Generation Division, also was helpful.

Matt Howard was stationed along the desolate Iraq-Kuwait border for six months.

“It was comforting to know that others were doing what they could to make the situation less stressful for my family.”

Kathleen Howard also appreciated the thoughtfulness.

“I cannot say enough how much we appreciate the support that everyone at Detroit Thermal has shown to our family,” she said. “Your support has helped ease our minds when it comes to some of the burdens of Matt’s deployment.”

Matt Howard says he is very pleased to be back at work. “I want to get back to normalcy,” he said.

And all of the people of Detroit Thermal are delighted to have him back. Welcome home, Matt! ■

## DISTRICT ENERGY GROWS IN POPULARITY

District energy is a rapidly expanding industry, and companies such as Detroit Thermal are helping new as well as continuing customers take advantage of the many benefits of district energy.

The International District Energy Association (IDEA) reports that during 2006 alone more than 40.5 million square feet of space was connected to or committed to connect to district energy systems in North America.

“District energy is extremely efficient for customers. It provides them with a reliable source of heating and/or cooling and at the same time frees them from investing in and maintaining boiler and chiller plants,” said Mark Butta, vice president of business development for Thermal Ventures II.

Watch for more information on the growth of district energy in the next issue of *The Detroit Thermal Voice*. ■

# We are a full partner in downtown



Chuck French -  
President and  
General Manager,  
Detroit Thermal

This past April marked the end of the fourth heating season for Detroit Thermal, LLC. In that brief period, we have gone from being an unknown organization to being an integral and important part of the downtown community.

We look at Detroit and the potential of the central business district with the fresh eye of a young, dynamic company and we see great promise for the future. That is why our business approach is characterized by enthusiasm and a long-term focus.

During these first four years we have taken tremendous strides in positioning the company for healthy growth. We have completed a \$22 million capital improvement program that greatly enhances our steam generation and distribution capabilities. We also have built a team of dedicated, experienced employees who focus on maintaining good relationships with customers.

### **FAIR RATES FOR COMPANY, CUSTOMERS**

One of our recent undertakings was the filing of our second rate case with the Michigan Public Service Commission. The filing was mandated by the MPSC as part of the first rate case and aims to set steam rates at a level that is fair for the company and its customers.

To achieve that goal the new rate case, which is now in its final stages, stipulates that a steam cost recovery mechanism that reflects the cost of steam purchased from the Greater Detroit Resource Recovery Authority (GDRRA) as well as the cost of natural gas will replace the gas cost adjustment mechanism. This major change in the way steam costs are determined will bring a new level of stability to customers' steam bills.

### **A BRIGHT FUTURE FOR DOWNTOWN**

The significant changes we have made and the additional improve-

ments we are studying will help us continue to provide customers with added value. We also are looking at alternative fuels that may offer promise for the future.

The future in fact looks very good to us. There are a number of downtown development projects, some in the talking stage and some nearing development, which represent opportunities for the system to grow. In addition, a number of customers have expressed an interest in using chilled water to cool their facilities. This is a promising area we are looking into.

In just four heating seasons, Detroit Thermal has begun to make its mark on the downtown area. It is evident in our investment in the system, our involvement in the city and our enthusiasm for the future. ■

- Thermal Ventures II, LP
- District Energy Systems
- Akron Thermal, LLC
- Akron Thermal Cooling, LLC
- Detroit Thermal, LLC
- Martinsville Thermal, LLC
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