

## STEAM SAVINGS FOR THE LONG HAUL

OEM service partnership helps keep historic paper maker up and running

**Modernization projects don't** end once a new product is installed or a new service is implemented. Moreover, the ultimate success of modernization efforts rides on more than what happens in the first few weeks or months or even the first year after an installation or launch.

Edward Champagne, engineering manager at paper manufacturer Paperlogic ([www.paperlogic.com](http://www.paperlogic.com)) in Turners Falls, MA, appreciates that the journey to plant modernization and better asset reliability is more of a marathon than a sprint. When it comes to his facility's generators, installed in place of 70-year-old boilers some time before Champagne joined the company in 2008, a dedicated preventive maintenance program coupled with ready expertise provided by the local vendor that made Paperlogic's generators has helped set the company up for success in the long haul.

Paperlogic has a long tradition on which to build. Originally known as Southworth, the company has been making premium papers for the retail market since 1839. In July 1858, then-U.S. Senate candidate Abraham Lincoln used a sheet of Southworth stationery when writing a letter to his Democratic opponent, Stephen A. Douglas, accepting the terms of what would go down in history as the Great Debates. Paperlogic retains a copy of the letter (seen at right) in its archives, a reminder of the company's place in history and the importance of paper correspondence.

Times change, though, and heightened emissions regulations beginning in the late 1990s demanded that the Turners Falls facility replace its boilers, which relied on heavy (No. 6) oil to fuel their steam-driven feedwater pumps. Looking for operational flexibility, automated operations, a solution to fit the facility's narrow footprint, and — of equal importance — a commitment on behalf of the vendor to reliable aftermarket service, the company chose to replace its four old boilers with three 400 hp steam generators from manufacturer Clayton Industries ([www.claytonindustries.com](http://www.claytonindustries.com)).

The generators can burn either natural gas or lighter (No. 2) oil, and their control is automated through a PLC. The full modulating units have a 5:1 turndown ratio—a key selling point, Champagne says.

"Time is money," he says. "Many times we run at the upper limit of the boiler, which for us is around 14,000 pounds an hour of steam being produced. But the nature of our paper machine is that it has swings in demand, and as the demand for steam drops, the boiler has to taper off."

Champagne says that when he started at Paperlogic in 2008, the plant was running 24/7. "It was that way for a year," he says, but "the paper industry has had its struggles." To better match production with demand, the plant now runs 24 hours a day but generally only five days per week.

That said, Champagne notes, "Everything that is supporting that paper machine has to be reliable" and able to be brought online quickly in the event of an uptick in demand.

Paperlogic's generators are tuned twice a year to maximize their efficiency — part of a preventive maintenance program designed and implemented by Clayton. In addition to the boiler tuning, high-wear items are replaced annually. Safety devices are tested for functionality, too, and Clayton prepares an emissions report to help Paperlogic ensure that it meets Massachusetts Department of Environmental Protection (MADEP) requirements.

For Champagne, having expert help available from a local OEM just a phone call away is invaluable. "Occasionally things do come up, and you may need to replace a part here or there, and they've been very responsive," he says. Technicians are able to be on site quickly to run online diagnostics and perform any necessary installations or specialty maintenance work.

"They're specialists; they're not that far away; the cost is reasonable," Champagne says. Always-at-the-ready expertise has proved especially worthwhile during challenging New England weather events. Back in 2011, a Halloween nor'easter left Turners Falls blanketed in snow, and a malfunctioning steam generator coupled with the storm threatened to derail production for an extended period of time. However, a field technician from Clayton contacted Champagne to let him know that a new drive module would arrive at the plant and be installed the following day. Production wasn't disrupted.

Reliability through an extended service partnership with the generators' makers has been an excellent investment, Champagne says, as it allows Paperlogic operators to focus on what they do best: actually making paper. ☺

