



MSP Airport Puts Monitoring of 700 Steam Traps on Autopilot - Saving up to \$420,000/Year

The Metropolitan Airports Commission (MAC) has over 700 traps in its steam system, used for domestic hot water and air tempering. However regular testing and repair were never done consistently due to limited personnel and their need to focus on priority issues.

"We had no way of knowing if a trap failed until there was noise in the line or people complained about the temperature."

- Steve Shuppert
Chief Engineer

Metropolitan Airports Commission

"We're restricted on personnel so we've never had the time to monitor our steam traps as often as we'd like to," said Steve Shuppert, chief engineer at MAC. "We had no way of knowing if a trap failed until there was noise in the line or people complained about the temperature."

The Cost of Potential Steam Loss

A single steam trap with a hole even the size of a BB can cost thousands of dollars in steam loss. When multiplied over numerous traps and an industry-wide average of 5-20% leaking at any time, the losses can be very high, on the order of \$60,000 annually for each 100 steam traps in a building/system. With over 700 steam traps in its system, the MAC had the potential to lose over \$420,000 each year.

SteamEye Monitoring Solves the Issue

After hearing about SteamEye, a steam trap monitoring system, during a utility workshop, MAC decided to do a pilot test. The SteamEye system uses radio frequency wireless transmitters, threaded into the bottom of the traps, to detect temperature and conductivity fluctuations. The transmitters periodically send a signal to repeaters which send the signal on to a central receiver that notifies system operators of trap condition and instantly alerts them to failures.

Pilot Test a Success

The MAC staff installed sensors on 66 steam traps in its energy management center and tested the system for one year. "It worked fantastic," said Shuppert. The airport now has monitors on all its traps. Prior to the steam trap program, there was no way of know if a steam trap failed. Now steam traps are automatically tested every 5 minutes.

"You know whether the traps are blowing through, cold or OK," said Jamie Chatelle, MAC assistant chief engineer. "When there's a problem, we get an audible alarm and we can check the 'failed points'."

If you're interested in a steam trap monitoring system, contact Campbell-Sevey for best options and potential rebates.



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