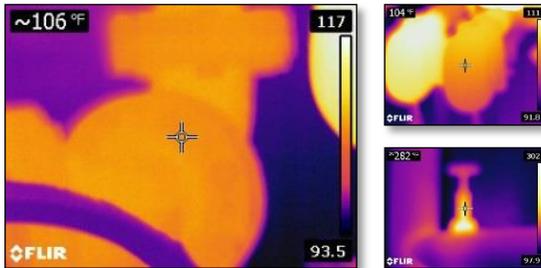


COTTAGE HOSPITAL STEAM TRAP REPLACEMENT CASE STUDY



QUICK GLIMPSE	
Customer	Galesburg Cottage Hospital
Measures Implemented	Repaired/Replaced Steam Traps Leaking Steam
Total Project Cost	\$11,950.00
Estimated Annual Project Energy Savings	41,261 therms
Estimated Annual Cost Savings	\$19,805.28
ActOnEnergy Incentives Received	\$4,100.00
Estimated Payback	Approximately 5 months

Impact*  or  or 

5,609 Trees **24,616 Gallons** **46.1 Cars**

* Project impact calculated using the EPA Greenhouse Gas Equivalencies Calculator

BASELINE

Established in 1891, Cottage Hospital has grown to a 173-bed hospital that serves Galesburg and the surrounding area. The 500,000 square foot facility uses a steam system with high and low pressure steam traps. A steam trap survey had not been conducted for several years. Ruyle Mechanical Services performed a steam trap survey identifying failed traps. Due to the age of the building and the lack of mechanical drawings, several traps required creative sleuthing to find. Ruyle found that 22% of the steam traps surveyed had failed open. Cottage Hospital's steam system was operating inefficiently and wasting energy and dollars.

OUR SOLUTION

Steam traps are a device used to discharge condensate, air, and other non-condensable gasses without consuming or losing live steam. When a steam trap fails open, it is leaking steam and wasting heat. This causes an inefficient system. Cottage Hospital uses steam year round for various functions. Uses include space heating, medical tool disinfections, and kitchen use. A functioning steam system is imperative to the proper operation of the hospital. With the help of Ruyle, Cottage Hospital was able to repair their failed traps.

BENEFITS

Repairing failed traps has benefits such as preventing corrosion in the steam line, returning condensate to the boiler, and improving the quality of steam for further processes. Working with the Ameren Illinois ActOnEnergy program, Cottage Hospital was able to receive \$4,100 in incentives to help pay for a portion of the total project cost. In addition, saving energy saves money. Cottage Hospital saved:

System Before Repairs

Total Therms per Hour: 38.04
Estimated Annual Operating Hours: 8,760
 Annual Therms 333,230

System After Repairs

Total Therms per Hour: 33.32
Estimated Annual Operating Hours: 8,760
 Estimated Annual Therms 291,969

TOTAL THERMS SAVED 41,261 Therms
TOTAL ANNUAL SAVINGS \$19,805.28

