



Customer : Building management company
Product group : Instrumentation, Process Control
Market : Utility and HVAC
Application : System for remote control and monitoring of steam system
Savings : \$ 75,000 annually

INDUSTRIAL CONTROLS DELIVERS COMPLETE STEAM CONTROL SYSTEM AND SAVES COSTS

Steam Control System



CUSTOMER PROFILE

This company is one of the largest commercial and industrial real estate sites in NYC. Properties are rented to various tenants but maintained and operated by a not-for-profit management corporation on behalf of the city of New York. The 300-acre site is home to over 330 industrial tenants employing more than 6,400 people, up from 3,600 in 2001.

CHALLENGE

Whenever steam is used to heat a building, it will require a way to control, monitor, and collect data from the system. This is traditionally accomplished by manually opening and closing mechanical valves. Personnel may also have to retrieve steam pressures, building temperatures, and flow data from gauges and meters throughout a building or site. These procedures are time- and labour intensive, which makes the system costly to maintain, dangerous to personnel and overall.

SOLUTION

Industrial Controls installed a complete system for remote control and monitoring of the existing steam system. The solution consists of automated valves and actuators (instead of manual valves), a RTU panel at each building or floor, and a site-wide SCADA system. Each RTU has a local HMI and PLC which collects and controls steam aspects such as valve position, building temperatures, steam temperatures, outside temperature, steam pressure, steam flow, and flow totals.

The SCADA hosts all this data for remote monitoring and control via PC or mobile device. This allows for advanced functionality such as scheduled set point control,

total steam usage calculation, automatic report generation, and SMS/email alarm notification.

SAVINGS

- \$ 75,000 annually

OTHER BENEFITS

- Ability to locate and illuminate steam leaks.
- Immediate notification of high steam pressure, reducing serious safety hazards.
- Notification of system malfunctions to reduce downtime and inefficiencies.
- Instant system control within seconds, as opposed to the hours it would take to manually apply control, including a full system emergency shutdown.
- More complete and accurate system data are used to create better usage reports.

FURTHER COMMENTS

The total investment for this project was \$ 200,000 and was delivered in 10 weeks. The cost of constant loss of steam, excessive heating, and additional labour to maintain and operate the existing system was over \$ 75,000 per year, creating a 2.6 year ROI.