

Northwell Health

Steam System Energy Reduction

Annual Steam System Maintenance Program Launched in 2019

In 2019, Northwell Health partnered with American Plant Maintenance (APM Steam) to implement an ongoing steam system maintenance plan to reduce natural gas consumption at member hospitals. This effort included APM Steam technicians surveying steam traps across 17 of the 21 hospitals in the NYC area. Survey reports were developed and submitted to Northwell Health, offering insight into each steam system's efficiency for steam distribution and condensate return. APM Steam would then repair steam traps that were blowing, leaking, or plugged. If insulation were missing, APM Steam installed new insulation to reduce heat loss. Heat Exchangers were descaled or repaired.



Haneef Khan, a member of the **Northwell Health Energy Steering Committee**, explains that "The energy and cost savings were staggering. Combine that with incentive funding for energy reduction by National Grid and ConEd; we can achieve payback well under 12 months by proactively maintaining steam traps, system insulation, and heat exchangers across our hospital portfolio. We're reducing our impact on the planet by reducing our CO2 emissions. The dollars we save in energy can be used to improve the quality of services that we offer the communities that we serve."

Measuring Key Results

American Plant Maintenance captures these components' status during the annual site survey and then handles the repairs, utility incentive paperwork/process, and provides data to Northwell to analyze data and make educated maintenance decisions at each hospital. The old saying, you can't manage what you can't measure is especially true when dealing with 3,800 steam traps across 21 hospitals. This program also capitalized on the energy efficiency incentives available through National Grid and ConEdison (depending on which utility provided natural gas to the hospitals).



Chip Goudreau, VP of Sales for APM Steam, commented, "A steam system relies heavily on steam traps to operate efficiently and safely. When a steam trap begins to leak steam, the energy losses can be monumental. Plugged traps present safety and system efficiency issues. By implementing an annual maintenance plan, Northwell Health was able to capture these savings."



3-Year Lookback 2019-2021

17

Number of Northwell Health Hospitals that participated in the steam trap survey program.

7,951

Total steam traps tested at hospitals.

\$568,875

Utility Incentive funding paid toward survey and project costs.

512,611

Natural Gas Therms saved from projects.

2,712

Metric Tons of CO2 reduction.

\$559,796

Cost of Natural Gas saved.



ABOUT NORTHWELL HEALTH

As New York's largest private employer and health care provider, Northwell Health implemented a Strategic initiative to reduce energy consumption. With 23 hospitals and more than 16,600 credentialed physicians, 18,900 nurses, and 5,000 volunteers, our facilities are the hub to the communities that we serve. In 2018, Northwell Health launched an Energy Steering Committee to oversee energy use and implement a set of standards to lower energy usage and reduce the carbon footprint for each of our 23 hospitals. Please visit us on the web at www.northwell.edu

ABOUT AMERICAN PLANT MAINTENANCE (APM STEAM)

American Plant Maintenance (APM Steam) provides a proven, turnkey approach to testing and managing steam traps' repair. With over 20 years of experience, our staff has tested hundreds of thousands of steam traps across an extensive portfolio of customers. APM Steam's solutions reduce operating costs while delivering on the maintenance required for a fully optimized steam system. Our surveys, system evaluations, and final reports include the level of detail every facility manager needs to make educated decisions about maintaining an optimized steam system. To learn more about American Plant Maintenance, please visit www.apmsteam.com