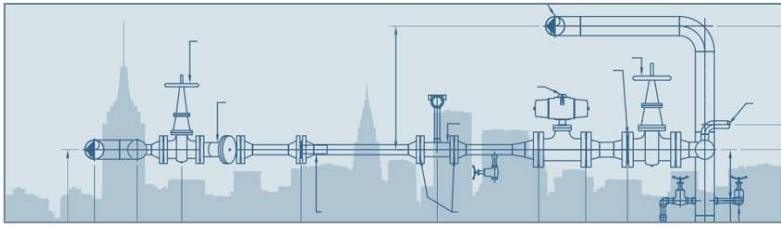


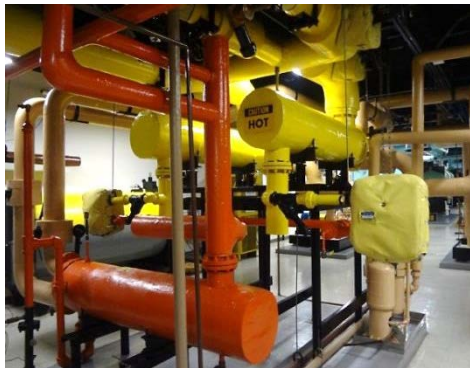
STEAM OPERATIONS



– STEAM EFFICIENCY DONE RIGHT – A Look at 450 Lexington Avenue

450 Lexington Avenue has the type of mechanical room and meter station that will make other building engineers envious. It's well insulated, clean, and well maintained.

These qualities help the building save energy and save money. In fact, 450 Lexington Avenue uses 20 percent less steam on average compared to similar steam customers.



So what's their secret?

Let's start with their steam traps – all 69 of them.

These steam traps are maintained and inspected every month and fully assessed once a year by a specialist contractor. Steam traps in the steam meter room are also remotely monitored. Steam traps remove condensate from steam pipes and avoid conditions for water hammer.

By maintaining their steam traps, 450 Lexington Avenue is able to ensure their system is safe, reliable, and energy efficient. A trap that fails in the open position not only wastes energy and is costly, but it can also cause high temperatures in the condensate discharge.

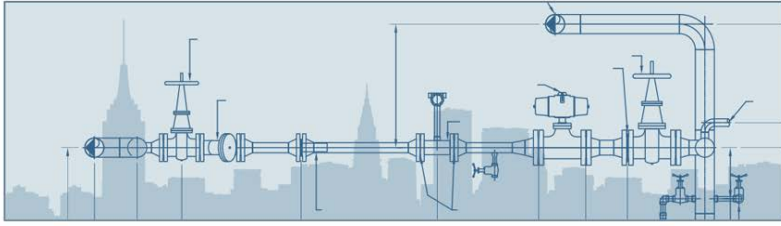
450 Lexington Avenue has a first-rate mechanical and steam meter room. The insulation on the piping is well maintained and there are no noticeable leaks in any of the joints or connections. This is especially important because un-insulated components result in heat loss, energy waste, and high bills. By making certain the insulation on steam system components is well maintained and replaced after any maintenance effort, a building ensures energy efficiency and cost effective use of steam.



"...Since steam is a very simple system to operate, we're afforded more opportunities to address tenant needs and property goals."

The centralized building management system (BMS) provides full system control and allows the building to efficiently monitor and operate all of its systems. Assistant Chief Engineer Nick Mazzola adds, "The efficiencies our BMS creates are very similar to that of our steam operation. Since steam is a very simple system to operate,

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we're afforded more opportunities to address tenant needs and property goals." This is one of the reasons the building has had such consistent performance over the past few years.



The building also effectively uses the residual energy in its steam condensate. Instead of discarding all of the steam condensate generated in the building, it is used to pre-heat their closed loop circulating hot water system. This strategy saves money and energy by reducing the amount of steam needed to heat the circulating loop, resulting in lower steam bills.



Building Background

450 Lexington Avenue is owned and operated by RXR Realty, LLC, a premier owner, operator, and developer with an extensive portfolio across the New York tri-state area. "It's evident that RXR has made a solid commitment of excellent service to its properties, tenants, and employees," said Chief Engineer Michael Placente. "The company's efforts in the areas of energy conservation and sustainability are really focused on bringing about a better and more responsible office environment." Located at East 45th Street and Lexington Avenue in Midtown Manhattan, the tower soars 34 stories above the eight-story historic Grand Central Post Office. The building was developed in 1989 and is 950,000 total square feet on 35 floors. The building relies on Con Edison steam service for heat, with a small amount used for hot water in the building's cafeteria.

To learn more about energy efficiency, read *Con Edison Steam Best Practices Report* at <http://www.coned.com/steam/PDF/Steam-Best-Practices-Report.pdf>.