



CASE NO. 01

BUILDING TYPE: _____

Apartment Building

NO. OF UNITS: 54

LOCATION: *25 East 83rd*
New York, N.Y.

Hot water makeover ends fluctuating temperature and high fuel costs.

PROBLEM: When the building superintendent at a New York apartment building started getting 4-6 complaints per week from tenants about erratic water temperatures, he knew he had a problem. Sometimes the water was too hot, sometimes too cold – but temperatures were rarely consistent. These symptoms, combined with a leaky boiler system and constant high fuel costs, continued to frustrate the building owner, the superintendent, and especially the tenants.

Like many older apartment buildings, 25 East 83rd Street relied on steam for both heat and domestic water. This meant the boiler ran year-round, supplying steam to hot water. The system was not inefficient, it was ineffective. The coils in the storage tanks were slow to react to demand so there could be long lag times in hot water supply. Once the water did get up to temp, the temperatures were difficult to control.

The time had come to investigate some new alternatives.

SOLUTION: The owner and maintenance superintendent turned to Marlande Heating Corp. for a solution.

"All along, the owners felt like the system was using too much fuel," said Bob Horstmann of Marlande Heating Corp.

Since it costs less to make hot water than steam, the contractor suggested installing a separate coil in the boiler for hot water. That way, the apartment wouldn't be relying on steam year-round for hot water. During the warmer months, the boiler would fire just often enough to keep the domestic water at 180°F. After all, it costs less to make 180°F water than 212°F for steam – particularly if the only reason you need steam in the first place is to make hot water.

The new system proposed and installed by Marlande saved the owner from having to make steam 5 months out of the year, May through September. As a result, the maintenance superintendent says the apartment's fuel costs have been virtually "cut in half" – savings that directly impact the tenants' utility costs.

Temperature control was another issue. In the winter when the boiler was operating for both steam heat and domestic hot water, the hot water temperature to the building would be excessive. The owner required a way to temper the water down to a temperature that was safer for tenant use. Al Michitsch of Marlande Heating Corp. selected a Heat-Timer tempering valve for the job. The Heat-Timer valve mixes water from the boiler coil with city water to meet a desired outlet water temperature – in this case, 135°F. The valve maintains that a pre-set temperature to within $\pm 2^\circ\text{F}$ at both peak and low demand periods.

Since the Heat-Timer was installed, complaints about fluctuating temperatures are a thing of the past.

Milan Ojdanic, maintenance superintendent, admits that he was skeptical about the new hot water system. He anticipated problems in meeting hot demand but says he's been pleasantly surprised. The system works exactly as Marlande proposed it would. And Ojdanic is enjoying less frequent visits from his oil supplier.

Meanwhile, tenants at 25 East 83rd Street are enjoying lower fuel bills and more consistent hot water temperatures.



Bob Horstmann of Marlande Heating Corp.
with 2" Heat-Timer Tempering Valve