

## The Essex Club Steam System

The Essex Club was an old-fashioned “gentlemen’s club” in downtown Newark. You know, the paneled walls, stuffed leather chairs kind of place where the Captains of Industry would hang out in the heyday of Newark.

By the early 1980’s, it had clearly seen better days. Newark at that time had sort of reached a low point. The 1967 riots had caused many businesses and people to leave town. Membership at the Club appeared to have dwindled and they were not exactly flush with cash.

Their building on Park Place was an elegant, “townhouse” type affair built in the early 1900’s directly across the street from Military Park. The first floor had a large entry hall, with some offices and a coatroom off it. There was a commercial kitchen. There were a couple of pretty nice dining rooms, and some rooms that could house private meetings. The upper floors had a number of bedrooms, and I was told that many members would spend the night there during the week and return home to the outer suburbs on the weekends. The top floor had squash or racquetball courts.

Well anyway, we weren’t members but Damon G. Douglas Company, or at least a couple of their officers, were. At that time, the Douglas offices were located on Broad Street. PSE&G were members, as were CTS Architects. These guys were all very friendly, and Douglas just so happened to be one of our oldest customers, which is how J. Moore & Co. got involved with the Club. We did all the plumbing and HVAC service work there.

One day we were asked to look at a heating problem. The Club was located adjacent to the Robert Treat Hotel. They were tied into the Robert Treat’s steam heating system. There was a condensate meter, and they paid the hotel for steam based upon the condensate meters readings. Oil prices were making major upside moves. The bills were getting higher than the Club wanted to pay, and the members had decided they could put in their own gas heating system, divorce themselves from the hotel, and save money.

We were called in by our friends at CTS and PSE&G, and asked to provide pricing to install new boilers etc. in the basement of the Club. Their idea was to remove some old steam boilers in the basement, install new high-efficiency ones, a new chimney and related work.

There was a significant expense involved with this scheme. It required substantial asbestos abatement, removal of two old boilers, and running a new chimney to provide proper draft.

When we went in and looked to price this up, we discovered that the Club had two very large, “coal fired” cast iron steam boilers in a basement mechanical room. They had been installed when the building was built. However, they had never been used! We don’t know the history of their installation, why they were installed, or how the Club came to buy steam from the hotel, but these boilers were absolutely brand spanking new. Looking at them was like stepping back in time or going to a museum. The boilers were clean; the coal grates had never had a fire in them! There were large, heavy brass pressure gauges like you’d see in a ship’s boiler room. The boilers and steam piping were covered with asbestos insulation, but it wasn’t dirty, sooty, or friable and showed no signs of any problem. It was as if the job had just been finished, and, like a Twilight Zone episode, the people had simply walked away from it and vanished into thin air.

We had recently been doing many conversion projects, mostly for Bell Telephone (now Verizon) where they had us installing dual-fuel or gas-only power burners in existing oil fired boilers. We thought that we could do a similar job at the Club. So we brought in Stillwell Hansen (at that time the Iron Fireman burner rep) and figured out what had to be done. To make them work, we would first have to pressure test the boilers to make sure they were sound due to their age (They were fine! In fact, we didn’t even have to re-pack the valves.). We would then have to remove the coal-grates and install a refractory chamber (we subbed this out); install a new gas power burner with related controls. We still had to install a new metalbestos flue to maintain proper draft.

It was decided that only one of these large boilers was necessary to heat the building. Back in the old days, it was not unusual to install a complete back up heating system, due to the unreliability of the systems of the day. So we worked up costs to retrofit one of the boilers, and also priced up the work required to replace them with modern, high efficiency boilers. The retrofit came in at about half the price, about \$80,000 vs. about \$170,000. Although new boilers would be more energy efficient, the difference in energy savings between the two jobs would have taken decades to pay off.

So we did the retrofit, and the Club got about fifteen years of satisfactory use out of the system until they closed down in the mid 90's. The building is presently housing the New Jersey Historical Society. When they moved in they had the entire structure, including the HVAC systems, gutted and renovated. But this remains one of our more interesting projects.

If you find this story interesting, and think we can help you with your unusual project, please give us a call!

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