

40 YEARS OF SAVINGS AT PARKWAY TOWERS

59 TRIAD boilers from 1965 are still saving their owners significant fuel dollars in 2006!

It was a normal phone call until Logan Craig, the facility engineer for Parkway Towers, told Ken Womack

of TRIAD Boiler Systems, Inc. about the boilers he had onsite. Mr. Craig had a simple question about his control panel, but soon revealed that he was in charge of a twin 12-story complex in Chicago, built between 1963-1965, that still used the original system, consisting of 59 TRIAD boilers! They were housed in a penthouse atop each tower and provided heating and domestic hot water to the 281 apartments and offices, snow melt for the sidewalks, and 85° heating to the swimming pool. What was amazing was that only two boilers were out of commission. All the others were operating perfectly after all these years!



The installation was in remarkable condition. Craig commented, "I inherited these boilers and they never were babied when it came to maintenance. In fact, I think I gave them their first waterside cleaning in what must have been 10-20 years."

Contributing to the longevity is the unusual ruggedness of TRIAD's construction materials. Despite their



small size, these vessels have 12 gauge firetubes rolled into 3/8" thick tube sheets, with a wall thickness of 1/4". Any boiler replacement will be as simple as it was 40 years ago – by the use of a hand truck, into the elevator, up to the penthouse, and through the 30" doorways.

"These boilers are like iron horses, very easy to maintain while still responding rapidly to changes in outdoor temperatures." said Craig, "For me they are like Ron Popeil used to say 'You can set them and forget them!"

These TRIAD Series 300 boilers are equipped with atmospheric burners firing at 300MBH connected via a primary/secondary piping system. Each boiler has its own circulating pump pushing the return water through the boiler, flowing back through the secondary supply piping and into the primary main to blend with the cooler return water. This single pipe system is elegantly simple, isolating each boiler from the primary loop and the return water, minimizing the effects of thermal shock, and negating the need for mixing valves that are commonly used in two-pipe systems. This system virtually eliminates standby and flue losses because the individual check valves prevent circulation of hot water through any unfired boilers.

Nine of the boilers are domestic hot water units each producing 270 gallons per hour at 100° rise. Similar to the comfort heating boilers, once demand exceeds 270 GPH, the next domestic hot water boiler is brought on line. This sequencing of boilers contributed to their longevity, allowing for the modules to share the heat load over time. This results in a higher seasonal efficiency, because on mild days only a few boilers are firing - in contrast to a single large boiler that would have much higher standby losses because it would have to be kept warm.



Longevity is just part of this story. Looking back through its archives, TRIAD found that in 1965 this installation was the focus of a full page industry ad touting *"TRIAD Primary-Secondary System Will Return More Than \$92,000 over 20 Years"*. It is rare when a manufacturer gets to see if the claims it has made hold true 40 years later.



At the time of the print-ad conventional direct-fired units were installed in one tower to heat domestic hot water, while the other tower had the TRIAD system in place. Clock meters were installed on four boilers and a master meter recorded total hours of the test, and other meters recorded time of burner operation as each unit cycled. During the 120-day test the TRIAD System showed incredible standby savings of 175,220,000 BTU's over the direct fired system.

In 1965, those BTU's added up to \$2000 a year for heating and \$650 a year for domestic water. The ad went on to say if the owners took those savings and invested them for 20 years at 5% interest they would end up with \$92,000. Little did they know that natural gas prices would have increased by a factor of twelve and that those boilers would still be operating in 2005!

TRIAD estimates that over this 40 year period Parkway's actual fuel savings have been \$453,737.

Please go to <u>www.triadboiler.com</u> for other successful applications as well as detailed information on TRIAD and its product line! If you have any questions, or need help, please contact your local sales representative. A complete contact list can be found on the website.