ASHRAE History Article...by Lee M. Loomis, Chapter Historian

Rochester, NY - An Historic Leader in District Heating

It was June of 1934 and the state of America's economy was at an all-time low. Nevertheless, there was something to be proud of about Rochester, NY, as RG&E hosted the 25th annual convention of the National District Heating Assn. at the Sagamore Hotel, 111 East Ave. Rochester's central station steam system, only the third one ever constructed, was now the sixth largest in the World. It burned 100,000 tons of coal per year, producing 1,200,000,000 lbs of steam to serve its 300+ industrial, municipal, commercial and residential customers.

Over the years, the system, begun in 1899, had systematically eliminated chimneys & smokestacks, curb-side ash barrels, air-borne soot and much unsightly residue from Rochester's urban environment. By applying developing technologies in transmission piping, insulation and steam control, an early system with as many as seven steam plants, scattered around the central city area, could now be served by just three steam plants. In 1934, the newest plant, Station #8, on Lawn St. between Broadway & Chestnut St., burned powdered coal, in the most efficient boilers of the time.

Curiously enough, the concept of central station steam systems had been developed in nearby Lockport, NY, in 1876. The inventor was Birdseye Holley, an engineer whose plan for that city was to bring steam to the fire hydrants in order to simultaneously power the steam-powered fire engines and to deliver water for quenching the fires. The experiment was a success, and soon led to the idea of generating steam, not so much for powering fire engines, but rather for heating buildings. Holley's name appears on the Rochester fire hydrant water system, as well as many other municipal boiler/water pumping systems across America.

As the result of his work, Lockport, NY became the home of the Holley Steam Combination Company, Ltd. In 1877, it became the first US city to have a central steam system, providing service to churches, homes and public buildings. The company soon expanded and began the manufacture of steam heating equipment. It's successor, American District Steam Co., eventually established a large manufacturing facility in Tonawanda, NY.

Meanwhile, investors in New York City recognized the potential this concept offered for reducing pollution in that large city. Soon, the New York Steam Corporation was formed, becoming the largest of its kind in the World. Architects began planning their buildings without boiler rooms and smokestacks. Even buildings, previously constructed with smokestacks, began to dismantle them in favor of this new, cleaner system of central heating. Customers of this system now include Rockefeller Center, Empire State Building, Chrysler Building and Grand Central Terminal, and many others.

In Rochester, NY, the system grew to the point that a hospital Genesee), a community auditorium/theater (Shrine Auditorium), government centers (Civic Center Plaza),

numerous small industries and commercial businesses all became customers of this safer and more efficient method of providing space heating and power within a city. Eventually, the Rochester Gas & Electric Corp. central station steam system, in the 26th largest American city, provided service to the largest group of industrial customers of any steam system in the World.

Today, the Rochester District Heating Cooperative, successor to the former RG&E system, still serves a small but loyal group of steam customers, from the original Lawn St. Station, now converted to natural gas.

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