THE YORK WATER COMPANY HISTORY OF STEAM ENGINE WATER PUMPS

Pumping engines have always played a major role in a growing community. Water was, and still is, a critical factor in the selection of a site for the new town or a new industry. The growth of a city and its business goes hand in hand with an abundant source of clean water.

The York Water Company, oldest investor-owned water company in America, began its operation in 1816 distributing spring water through log pipes. In 1849 it became clear that the town was outgrowing the spring capacity, and the Company decided to augment the supply by pumping water from the Codorus Creek. The location of the new station was across the Codorus Creek from the former Schmidt & Ault Paper Company plant on Penn Street at Kings Mill Road. The new building demanded the installation of the latest equipment, a steam-powered pump.

According to The York Water Company legend, the fire in the first boiler was started from the pipe of a workman and burned continuously for 107 years until 1956 when the Company began pumping with electrically powered pumps.

As York became a booming industrial community, prosperity brought new problems to The York Water Company with pollution of the Codorus Creek. Without the knowledge of modern day processing, the only solution was to seek out a cleaner source of supply. The old pumping station was abandoned and a new raw water pumping station was constructed near Brillhart and was completed in 1897. The Brillhart Station, the main pumping station, has been enlarged several times as York and the suburbs served by the water company have grown to a population of nearly 200,000. At the pumping station, water from the Codorus Creek is lifted through a 36-inch main and two 24-inch lines to the filter plant two miles away. From there the flow from gravity alone assures sufficient water pressure for most of the York valley residents. The original pumps and boilers have since been retired; however, until 1956 all pumping at the Brillhart Pumping Station was performed by the following steam operated pumps:

Pump Unit	Rated Capacity	Date Installed
No. 1 -Worthington Centrifugal Pump Steam Turbine Driven	9 MGD	1925
No. 2 -Worthington Horizontal Cross Compound Pumping Engine	5 MGD	1925
No. 3 -Snow Horizontal Cross Compound Pumping Engine	8 MGD	1914
No. 4 -Worthington Centrifugal Pump Steam Turbine Driven	9 MGD	1946
Steam was supplied for operation from the following boilers:		
No. I -Babcock & Wilcox Boiler, Oil-fired	200 HP	1946
No. 2 -Sterling Boiler, Coal-fired	277 HP	1925

Due to increasing fuel costs, increased boiler maintenance costs, and decreasing electrical rates, electric pumps were installed beginning in 1956 and the steam pumps were kept serviceable as backups. From 1956 until 1981, the steam pumping equipment had been kept available for emergencies, but additionally almost yearly, it had been needed to perform during maintenance outages, generating plant failure, peak loads, or storm disruptions.

Since it was in need of major repairs, and parts were not available, the No. 1 pump was removed in 1979. In 1981 the No. 4 pump has been converted to a diesel engine-driven pump and remains part of the backup. In 1982 the No. 3 pump was removed. In 1981 the No. 2 pump was removed from service, but has remained on site and was designated a Pennsylvania Mechanical Engineering Landmark. Since 1981, backup pumping has been provided by diesel driven pumps.

After the 1972 onslaught of Hurricane Agnes temporarily put the electric driven pumps out of service for four days, the steam pumps saved the city from a critical water shortage.

In spite of the historic interest in the steam pumps and the value of these units in standby capacity, the electric-driven and diesel pumps are the current work horses of the pumping station.

The age of steam served York daily for 107 years from 1849 until 1956 when electric pumps were installed. The original electric pump was replaced in 2012, after 56 years of continuous duty. The steam pumps remained as backups until 1982 when they were fully replaced by diesel backups.