

Louisville Water Company
Pumping Stations
Zorn Avenue and River Road
Louisville, Kentucky
Jefferson County

HAER No. KY-9

HAER
KY
56-LOUVI,
72-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20240

ADDITIONAL
FOLLOWS...

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HISTORIC AMERICAN ENGINEERING RECORD
LOUISVILLE WATER COMPANY PUMPING STATIONS
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Date: 1856-1919
Location: Zorn Avenue and River Road
Designed by: Theodore R. Scowden, C.E.
Owner: Louisville Water Company

Significance: Theodore R. Scowden, chief engineer for the Louisville Water Company, designed Pumping Station No. 1 in the Classical Revival style in 1856. The complex included an engine room and boiler house in the form of a two-story temple, three bays wide, with a tetrastyle portico and twin one-story wings. The windows, sills, and column bases are of cast iron; the capitals of terra cotta. A 169' high standpipe tower with a Corinthian peristyle around the base and statues atop the columns was designed in imitation of a triumphal Roman Doric column. The tower was constructed of brick to the top of the colonnade, and of riveted plates of steel and sheet metal above this point.

The engine room houses two batteries of three Cornish boilers each, two sets of duplex steam pumps and two Cornish beam engines. Pumping Station No. 1 initially had a capacity of 100,000 gallons of water a day.

In 1890, a tornado swept Louisville. The water tower was reduced to a 30' stump. The city quickly rebuilt the standpipe tower and returned nine of the ten original statues to their posts around the colonnade. These statues are characters from classical mythology. The tenth statue was replaced by one of an American Indian and his dog.

Pumping Station No. 2, to the far west of the Water Company's River Road Complex was erected in 1892. It housed the famed Hermany-Leavitt double-expansion pumping engine built by the I. P. Morris Company of Philadelphia. Three Belpaire locomotive style boilers fed by a Worthington duplex pump fed the engine. The engine, famous for its efficiency, which was attributed to its enormity, was scrapped in 1961.

Pumping Station No. 3 was completed in 1919. On display inside is Pump No. 5, a triple-expansion steam engine designed after the Hermany-Leavitt. It represents the last of several similar pumps which operated at the Water Co. from 1893 to 1972.

Pump No. 5 operated on the expansion of steam displacing a series of three pistons in chambers. The high pressure chamber received steam directly from the boilers and exhausts into the intermediate chamber. After the steam expands in the intermediate chamber, it is exhausted into the low pressure chamber. After final expansion in the low pressure chamber, the steam is exhausted into a condensor. The diameter of each piston is designed to deliver the same thrust as the other pistons. Because the pressure is reduced as it proceeds through the engine, the piston receiving the lowest pressure has the largest diameter, while the piston receiving the highest pressure has the smallest diameter.

Historian: Stephen Hubbs, Louisville Water Company, 1978

Transmitted by: Monica E. Hawley, Historian, 1984

Addendum To:
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