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ILLINOIS POWER COMPANY,
MARSEILLES HYDRO-ELECTRIC PLANT
(Illinois Traction System, Hydro-Electric Plant)
I&M Canal National Heritage Corridor
North Bank of Illinois River
Marseilles
LaSalle County
Illinois

HAER No. IL-93

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
P.O. Box 37127
Washington, D.C. 20013-7127

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HISTORIC AMERICAN ENGINEERING RECORD

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I&M Canal National Heritage Corridor

HAER No. IL-93

Location:	On north bank of Illinois River, quarter mile west of Main Street Marseilles, LaSalle County, Illinois UTM: 16 E.356500 N.4576200 Quad: LaSalle
Date of Building:	1910-1912
Builder:	Illinois Traction System
Present Owner:	Illinois Power & Light
Present Use:	Electric power plant
Significance:	Built as part of the expansion of the Illinois Traction System, the Marseilles Hydro-Electric Plant still has three of the original (1912) generator-turbine units in place.
Project Information:	The Illinois and Michigan Canal was designated a National Heritage Corridor in 1984. The following year HABS/HAER embarked on an extensive inventory and documentation project of the 100 mile-long corridor. Field work for this project was concluded in 1988. Final editing of the documentation was completed in 1992.
Historian:	Gray Fitzsimons, 1987.

The Illinois Traction System, owned and operated by the McKinley syndicate, began constructing in 1902-1903 an interurban line that extended from Ladd, Illinois, south to Spring Valley, Illinois, and east to LaSalle-Peru, Utica, Ottawa, and Marseilles. Known as the Illinois Valley Railway Company, this electrified line was completed to Marseilles around 1905. The railway company obtained electric power from a steam plant in LaSalle that was operated by the Citizens' Lighting Company, another subsidiary of the Illinois Traction System.

When the line was completed from Marseilles to Joliet via Seneca, Morris, and Minooka in 1911, the Illinois Traction System operated this property as the Chicago, Ottawa & Peoria (C O & P) Railway. This early 1910s expansion of the C O & P included the construction of a low-head, hydro-electric plant at Marseilles. Completed in 1912, this powerhouse superseded the LaSalle steam plant, although the latter facility was retained by the traction company as a standby plant. The plant's original four AC Westinghouse Company generator and Leffel Company, James turbine units generated power for both interurban and city lighting. The interurban railway remained in service until 1934 when, faced with decreasing revenues and deteriorating facilities, the C O & P shut down its operations. The Illinois Power & Light Company, originally a subsidiary of the Illinois Traction System, continued to manage the plant, producing power for residences and businesses in Marseilles.

In the late 1930s Illinois Power & Light expanded the powerhouse by constructing an addition to the west and installing two AC General Electric generator and Leffel turbine units. A seventh AC General Electric Company and Leffel turbine unit was added in 1942, bringing the total capacity of the plant to about two megawatts. Three of the four original generator-turbine units remain in place (unit No. 7 has the original AC Westinghouse Company generator; however, it contains a newer Leffel turbine). The original Westinghouse frequency changer also remains.

The powerhouse measures approximately 210' x 50' with a transformer room to the north, measuring approximately 70' x 50'. The two-and-one-half-story building has a steel frame and brick walls, riveted steel Warren roof trusses, concrete floor, and concrete foundations. A feature of the building is its hipped roof with terra cotta tiles, wide eaves, and multi-light, double-hung sash windows. The power plant houses four Westinghouse AC generator and Leffel Company, James turbine units. Three of the generators operate at 25 cycles per second, and one operates at 60 cps. All three generators are rated at 256 kilowatts, operating under a maximum head of 15 feet. These

generator-turbine units date from the original construction of the powerhouse.

In 1938 Illinois Power & Light installed a fifth unit, consisting of a General Electric AC generator and Leffel turbine; the generator is rated at 300 kW, operating at 60 cps. The following year, a sixth General Electric Company AC generator and Leffel turbine unit was added (the generator rated at 250 kW, 60 cps). In 1942 a seventh General Electric AC generator and Leffel turbine unit was installed (the generator rated at 450 kW, 60 cps). In addition, two DC Westinghouse exciters (dating from about 1911) and one motor-driven DC exciter (date unknown) remain in place. The power plant also houses a Westinghouse Company 60-cycle frequency changer; the frequency changer is operated in conjunction with the original turbine-generator units. Water is conducted from the Illinois River (at an intake above the Marseilles Dam) through a 2,400 foot-long canal to a forebay which measures 200' x 150' and is about 18' deep. Each turbine handles a maximum flow of 3,539 cubic-feet per second. The water is then discharged into the Illinois River. Presently the powerhouse has a total output of two megawatts.

SOURCES:

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George W. Hilton, and John F. Due, The Electric Interurban Railways in America (Stanford, California: Stanford University Press, 1964).

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