



JOHN P. GALLAGHER, who wrote this article, has been director of utilities in Piqua for six years. But he had known the Piqua Plant intimately since 1936, while he was with the Traveler's Insurance Company of Hartford, Connecticut. A native New Englander, Mr. Gallagher was with Associated Gas and Electric Company at Cambridge, Mass., 1926 to 1929. Then, for seven years, he was with New York Power and Light Company. When he left he was electrical engineer for steam generating stations.

● Successful power plants are born of long range planning. They do not survive long unless the engineering, operation, and management are sound and healthy. Adherence to this basic philosophy accounts for the present status of Piqua's Power Plant System.

The original power plant building, one-third of the present structure, was erected in 1933. It contained two steam generating units and two Elliott 4000-kw turbine-generators designed for 375 psig inlet pressure (750 F). Maximum demand in 1936 was 3200 kw. Three years later demand had increased to 4650 kw, indicating the need for another unit. In 1939, the first addition to the plant included an additional 50,000-lb-per-hr steam generating unit and another 4000-kw turbine-generator. During 1947, peak demand was 9700 kw, and 41,000,000 kwh were produced.

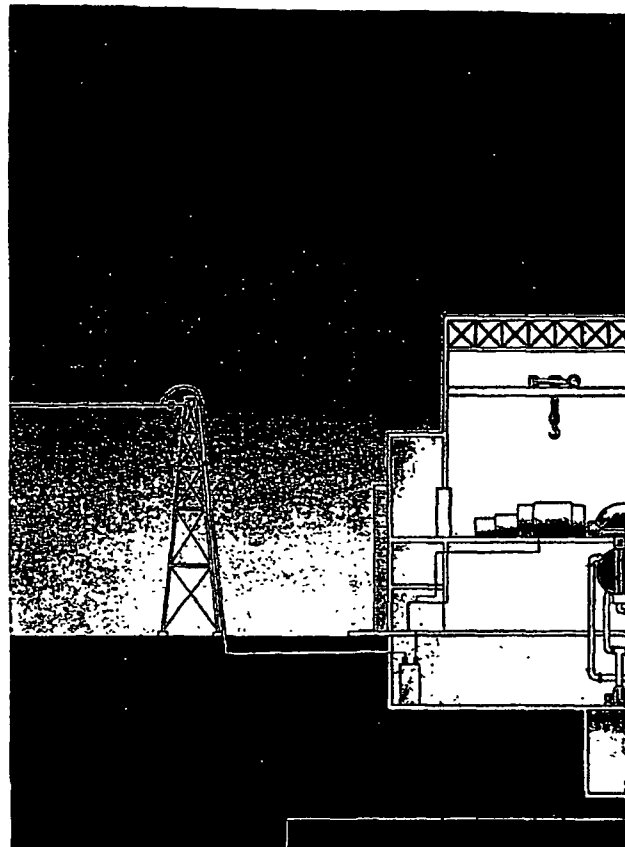
The present utilities director assumed charge in October, 1942, at which time the maximum demand was 5300 kw and the monthly gross production slightly less than 2,200,000 kwh. Within three months, because of the war, the demand had increased to 6000 kw and monthly production to 2,500,000 kwh.

To condition the power plant and distribution system for the expected load increases and to assure continuity of operation, a complete survey and rehabilitation program was initiated late in 1942.

The distribution system was expanded and improved. Two new feeder circuits were installed, as well as equipment for the improvement of system power factor and voltage.

Remote controls and alarms for all essential auxiliary equipment within the plant and in the river screen and pump house were installed.

Boiler-feed pump control and regulating equipment was installed so that all four boiler-feed pumps which had different head characteristic curves could be operated in parallel. Also remote control for these units and automatic start-up of one turbine-driven pump in the event of low feedwater header pressure, was provided.



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