generators at Grand Haven

● The latest addition to the Diesel generating plant at Grand Haven, Mich., was put into operation recently. It marks the sixth Diesel unit in the plant, and the fifth extension since the first two 800-kw units were started in 1931. The plant, with its total of 13,300 installed horsepower, is one of the largest Diesel generating plants in the country.

A manufacturing and resort town on Lake Michigan where Grand River enters it, Grand Haven has generated its own power since 1896. The original steam plant grew until it attained 3000-kw capacity in 1928. Increased loads and high production costs led in 1929 to construction of a Diesel power plant.

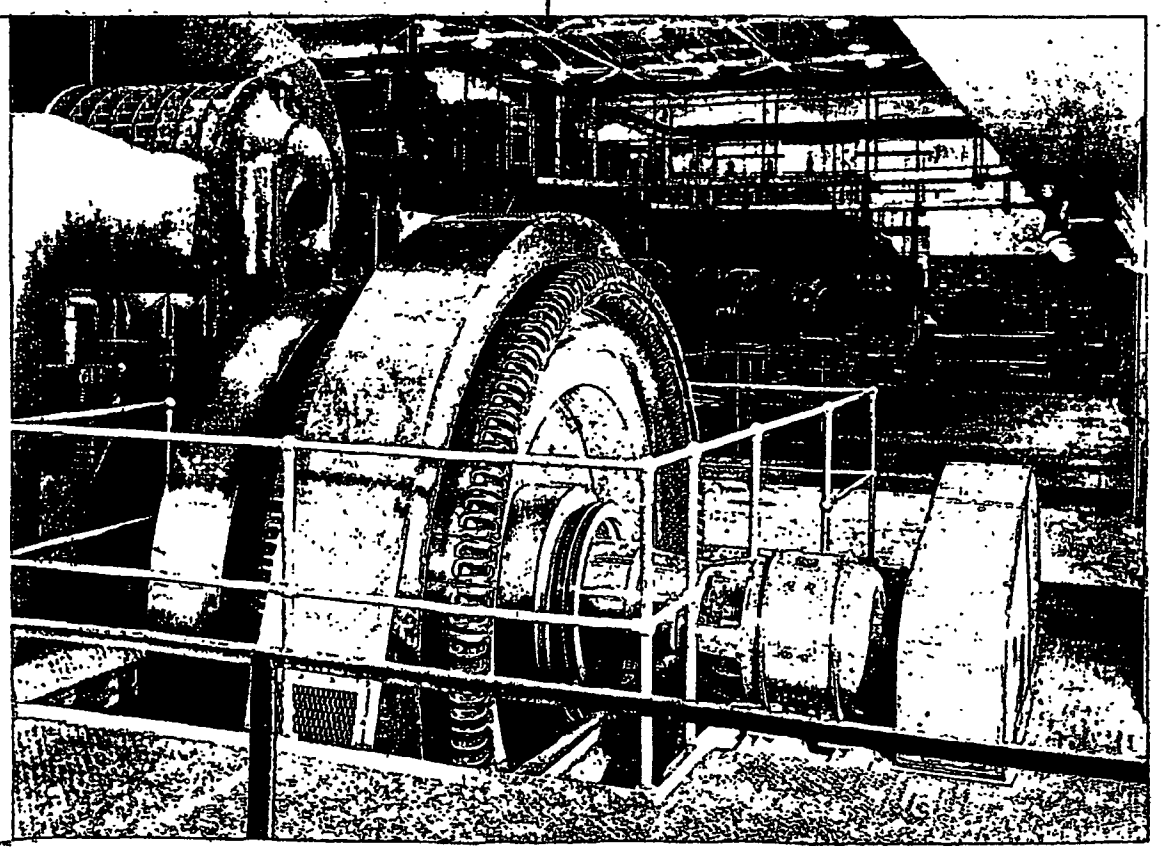
In 1931, two 1140-hp Baldwin DeLaVergne four-cycle engines, driving Elliott 800-kw generators, were installed, followed three years later by a third unit, exactly duplicating the first two units. In 1937 the building was extended and a 2250-hp Nordberg two-cycle Diesel driving a 1600-kw Elliott generator was added. In 1941 a Nordberg two-cycle, 2715-kw engine-generator was placed in the building.

All this time the boiler plant with the 3000-kw of turbine capacity had been maintained as a standby, since firm capacity of the Diesel units (full load with largest unit out) was inadequate to meet peak demand. When one Diesel was out for inspection or overhauling, steam plant boilers were held on bank. This was expensive in fuel and also labor, as Diesel operators cannot readily attend the steam plant.

In 1946 an exhaustive study was made of the problem of meeting current and future loads.

So another addition was made to the station building large enough to house two more units of the same size and type as the fifth unit, installed in 1941. The new unit is a Nordberg 21½ x 31 in., 225-rpm, air injection, two-cycle Nordberg engine, direct-connected to an Elliott 3390-kva, 7200 volt, 3-phase, 60-cycle generator.

The Grand Haven power system's own organization handled all engineering and construction of the recent extension.



In the foreground is the new Elliott 2715-kw generator with belted exciter. Immediately behind this new unit are the three Elliott 800-kw generators serving engines installed in 1931 and 1934. In the extreme background, not shown in the picture, is another Elliott 1600-kw generator.

CRIMDEBN00000261