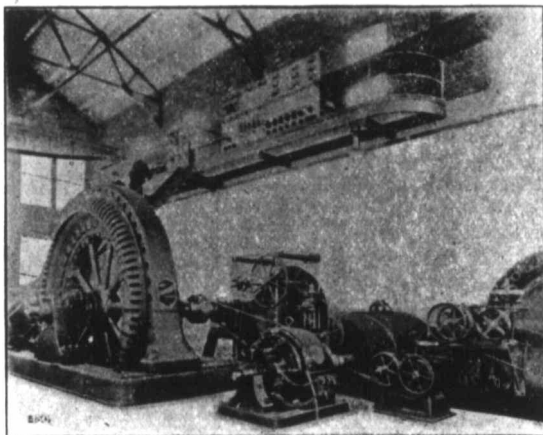


provided with intermediate taps so that besides the full voltage of 11,000 V., if a smaller number of lamps are required, either 4,400 or 6,600 V., can be used, thus reducing the re-actance necessary to maintain a proper voltage and permitting of a higher P.F. under the conditions of partial load.

Current for the power circuits, three in number, is obtained by stepping up from the generating voltage to 11,000 V. by means of 3-150 KW. transformers which supply the 3 P. transmission lines reaching various locks along the eleven miles of canal.

The primaries of both arc lighting and power transformers are controlled by oil switches connected to the bus bars on the main switchboard, a separate panel being provided for each class of service. The power circuits are passed through a separate high potential switchboard which connects the transformers to the three separate 3-phase power lines. A 2,200 V. line also provides Mille Roches with light and power service.



Lightning arresters and choke coils are provided for the various circuits. The wiring of the station between generator and switchboards to the wire tower, from which the circuits are fanned out to different pole lines, is all carried in three conductor cables lead encased, suitable trenches being provided in the concrete floors allowing ample space for additional cables.

The pole lines for the lighting and power circuits are of substantial structure, an exceedingly straight lot of cedar poles being used. These range from 30 to 50 ft. in height, none having less than 7" tops on which are mounted special cross arms provided with hickory