

## APPENDIX

ture forms an icerun. The power house substructure is of concrete and the superstructure of stone. Tail water from the plant discharges directly into the Trent River. Energy is transmitted at 44,000 volts to the Central Ontario System.

*Frankford Development.*—This development is situated at Dam No. 6 of the Trent Valley Canal System. A three sluiceway intake at the east end of the dam conveys water to a short forebay which, in turn, empties into five wheelpits forming part of the power house substructure. In each of four of the wheelpits a 1,200 h.p. turbine is installed, of the double-runner, simple-discharge vertical type, direct connected to a 812.5 K.V.A., 3 phase, 60 cycle generator. In the fifth wheelpit an exciter turbine with vertical shaft is installed, driving a 85 K.W., 125 volt exciter. A second exciter is motor driven. The total capacity of the turbines is 4,800 h.p. under a head of 18 feet. Turbine regulation is obtained by automatic hydraulic governors. A spillway icerun is provided in a concrete wall separating the forebay from the Trent River. The power house substructure is of concrete and the superstructure of brick. A stony gate, operated by a travelling gantry, controls the openings to the wheelpits. A tailrace, 500 feet long, runs parallel with and is isolated from the river by a rock-filled crib faced with concrete on the river side and with timber on the tailrace side. Energy is transmitted to the transformer station of the Trenton development, about five miles south, at 6,600 volts, for distribution to the Central Ontario System.