are moulded in concrete and have no steel lining, being built up with the structure, cored openings in the monolith. Care wastaken to secure a very smooth surface on the inside of all passages for water, and their curves and cross sections were designed to offer as little resistance as practicable.

The exciter turbines are similarly arranged, but are made to operate under a constant head by having the discharge at a higher level, which level is maintained by a weir.

The pressure pumps, governors, and low tension cables are all located in the chamber below the power house floor, the only machinery on the floor being the generators, controlling board and the low tension switches. The crane travels the length of the power house and over the railway track, so that all machinery can be handled from the car to place by the crane. Any leakage through the up-stream wall is taken care of in the air space and drained off.

The tail race openings are also provided with gates and stop logs, which can be closed, and any chamber can be emptied of its water by a system of drains and valves, leading the water from any one chamber to a well at the south end of the building, where a centrifugal pump throws it out into the tail race. The head water is admitted through a by-pass, as shown on plan No. 4. The whole scheme provides the greatest facility for inspection and making of repairs when necessity arises.

The transformer house and switch room are clearly shown on plans No. 7 and No. 8. The floor of the transformer room is at such a level as to permit of the transformers being wheeled on their own trucks from a flat car on the railway siding into place. The transformers are entirely separated from the switch room by a concrete wall, and the whole building is of concrete, including the partitions and barriers.

Owing to the peculiar location necessary for the transformer and switch building in relation to the power house, it was necessary to throw arches over a gap in the rock to provide foundation for the building, this will be seen on plan No. 8.

As this work is the largest single piece of concrete construction yet built in the Province, it is satisfactory to be able to say that the whole of the cement used was manufactured in British Columbia, and successfully passed the rigid tests of the Engineers prior to acceptance

*Hydraulic Machinery.*—Each main unit is capable of delivering to its electrical generator 8,000 mechanical horse power when operating under a head of 70 feet of water and when running at a speed of 180 revolutions per minute. The quantity of water