

Abstract for article to be presented at IRMC2017

CASE STUDY OF AN INSULATION FAILURE DURING MOTOR LAUNCHING IN A PSP

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Electricité de France runs, monitors and maintains a fleet of more than 1000 hydro generators ranging from some tens of kVA to 270 MVA. The fleet represents more than 20 000 MW of generating capacity among which 5 000MW are pump storage (PSP)

The case presented in the article deals with an event that occurred in 2016 during a back to back launching sequence at a very large PSP where the units are rated 170MVA, 15.5kV.

As the generator was driving the motor up to speed, a double earth fault happened, one on each unit electric circuit. This event caused major damage to the driving generator on both stator and rotor. While on the driven motor, earth fault was on the IPB feeder and insulation was resaturated easily.

The case study will present and debate the sequence of failure, the protection scheme, the damages, repairs and test after repair.