

Todor Angusev
Ilija Elenov
ESM, Skopje
Vlado Ilievski
Laze Dimitrievski
Stojan Spasenovski
REK Oslomej, Thermal Power Plant

REPLACEMENT OF PROTECTION ON TURBO-GENERATOR TGH-120 WITH STEP-UP TRANSFORMER AND POWER TRANSFORMERS FOR DOMESTIC SUPPLY INSTALLED IN TPP OSLOMEJ

ABSTRACT

This article presents the experiences derived from replacing of the electric protection of the generator with step-up transformer and of the power transformers for the self-supply at the TPP Oslomej. The old electric protection is electromechanical, mainly produced by BBC, and the new one is a product of ABB, numerical and with enhanced capabilities offered by the latest generations of devices of this kind.

The text below describes the complete procedure, starting with reasons for replacement, choosing the function that will be performed by the new protection, adjusting the new equipment to the existing one at the site, and concluding with the installation, testing, commissioning and putting in to operation of the aggregate with the new protection devices.

The article also describes the new protection functions that did not exist in the old protection, and carry the function of improving the efficiency and the selectivity of the generator and the transformers. At the end the Pole Slip protection function is described in details.

Keywords: numerical protection, power swimming, pole slip.