

Study of Serebryanskaya HPP hydraulic unit's governors.

Gerasimov A. S., Gerasimov D. A., Gurikov O. V., Kabanov D. A., Satsuk E. I., Smirnov A. N.

In October 2018, Serebryanskaya-15 HPP and Serebryanskaya-16 HPP were islanded from the Unified Power System of Russia due to multiple power lines trips. While island operation of the power plants frequency and power oscillations caused by the mis-operation of the hydro turbine governors were present. This paper describes the three years long Serebryanskaya HPPs governors study and the measures taken to improve frequency control. The results of field tests are also presented.

Key words: frequency, frequency control, speed control, hydro turbine governor, hydro turbine model, hydro turbine.