

Methodology and algorithms for accounting for frequency variation in centralized protection systems.

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The article outlines the problems of emergency control, the solution of which makes it possible to limit the change in frequency in the transient process. Mathematical models of turbine equipment of power plants, load nodes and automatic frequency limiting devices have been developed to perform calculations of transient conditions. A description of numerical methods is provided that allow the required calculations to be carried out. A methodology has been proposed that allows the formation of a single volume of control actions of a set of calculation modules of centralized emergency automation systems.

Key words: centralized emergency control system, isolated power system, transient process taking into account frequency changes, mathematical model, turbine equipment, integration method, calculation of the volume of control actions.