

1.11 EMERGENCY COMPUTER OPERATING SIMULATOR FOR DISPATCHERS OF THE INTEGRATED POWER SYSTEM

Emergency computer operating simulator is designed to improve qualification of the dispatchers of integrated power system (IPS). It is running on a local computer and provides:

- creation of computational model of IPS using the KOSMOS information about retrospective modes;
- calculations of normal, repair, heavy and self-established by frequency and voltage emergency stationary electrical modes of IPS;
- checkout of static and dynamic IPS stability taking into account automatic field regulators of synchronous generators, automatic speed regulators of turbo- and hydroelectric units of power plants, and system-based emergency automatics;
- calculations of long-term dynamics after unexpected active power imbalance of IPS taking into account an action of automatics of frequency load shedding and automatics of limitation of current frequency rise;
- calculations of cascading failures according to a given scenario;
- display of operational information regarding IPS mode on a simulator monitor in the form of graphs and tables.