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The substation secondary circuits control degree.

The purpose of this paper is a comprehensive analysis of existing technical and mathematical solutions concerning condition control of RP&A devices in general, as well as for individual sections of secondary circuits. Another goal is to classify RP&A parameters, and to form the set of parameters, which is necessary to control the complete observability of the secondary circuits. Key publications about the reliability of secondary connections and microprocessor devices are reviewed. Also, malfunctions determining methods of current and voltage circuits, control circuits, logical part of devices, power supply, signaling and communication, description of the operation logic and reduction of the electric circuit are classified. As well the situation at real technical objects is described on an example of Ekaterinburg power system.

Keywords: relay protection, technical maintenance, self-testing, microprocessor terminals, SCADA systems.