ABSTRACT

Explanatory note has 103 p., 25 fig., 22 tables, 3 appendixes, 29 sources.

The purpose of the research is the condition controlling of the first circuit heat-carrier at the water-water atomic reactor VVER-1000.

The object of research is a automated control system of the heat-carrier water-chemical mode at the first circuit VVER-1000 and their software implementation.

The subject of the research is the steam generation control subsystem at the NPP first circuit. The key aspect of the research is decision-making algorithms based on the models developed.

The heat-carrier water-chemical mode at the first circuit of the VVER-1000 reactor is investigated in the research. The steam in the heat-carrier detection algorithm for the reactor first circuit is proposed. A software module that implements the proposed algorithm is developed. Start-up project based on technical and economic indicators for this process is developed too.

TECHNOLOGICAL PARAMETERS CONTROL, FIRST ATOMIC REACTOR CONTOUR, ALGORITHM, SIGNALING SUBSYSTEM, SIMULATION MODELING.