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Evolution of WWER-1000 Designs

This paper describes the evolution of WWER-1000 designs of various modifications. The differences made to the designs of new generations of reactors to improve the safety and reliability are overviewed. A brief description of new passive safety systems that fundamentally contribute to prevention of beyond design basis accidents and mitigation of severe accident consequences is presented. Comparative data are provided for systems and safety parameters for various generations of WWER-1000 designs.

Keywords: nuclear power plants, WWER, safety improvement, safety systems, passive systems.