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Evaluation results of BN-1200 compliance with the requirements of GENERATION IV and INPRO

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The project of a power unit with BN-1200 reactor is designed using advanced technical solutions, which define evolution of the fast breeder technology in the field of safety parameters and in the field of technical and economical indicators.
At present there was completed estimation of the BN-1200 project from the point of view of its compliance with the requirements of nuclear energy systems of Generation IV in the frames of International forum Generation IV, and comparison of the BN-1200 project with other fast breeder projects using NESA INPRO procedure, developed and verified for comparison of nuclear energy systems with PWR.
The paper presents the results of preliminary estimation by the INPRO procedure, which showed that BN-1200 has good margin of safety and economical characteristics in comparison with the previous projects; and BN-1200 meets all the basic principles in the fields of 'safety'and 'economics'; and BN-1200 can ensure sustainable development of the nuclear energy system.
Estimation results of the BN-1200 concept for compliance with the requirements to Generation IV plants testify that BN-1200 project, as a whole, has good potential from the point of view of compliance with the stated requirements.

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