

# ELABORATION OF THE THERMAL-HYDRAULIC CHARACTERISTICS OF THE REACTOR PLANT BASED ON THE OPERATION EXPERIENCE OF THE POWER UNIT WITH BN-800 REACTOR

*Friday 22 April 2022 10:30 (2 hours)*

The analysis and elaboration of the thermal-hydraulic characteristics based on the results the reactor plant (RP) commissioning allow validating the algorithms of passing the modes and sufficiency of the margins applied in the project related to the thermal-hydraulic characteristics of the main equipment.

The paper presents the comparative analysis of the start-up algorithms and operation modes at various power levels of the BN-800 RP of the power unit 4 of the Beloyarsk NPP applied in the project and realized during the commissioning of the unit. There are presented the comparison results of the operation mode parameters and thermal-hydraulic characteristics of the main equipment obtained during operation of the BN-800 RP with the calculated ones using verified and validated software TP-БН (TR-BN). Based on the summation of the operation data of the BN-800 RP the conclusion regarding sufficiency of the margins applied in the project for the thermal hydraulic characteristics of the intermediate heat exchanger and main circulation pumps of the primary and secondary circuits.

The results of the completed research are used for validation of algorithms of passing the modes during normal operation of the BN RP and operation conditions of the main equipment.

## Country/Int. organization

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**Session Classification:** Poster Session

**Track Classification:** Track 6. Modelling, Simulations, and Digitilization