

## **RELAP5/MOD3.2 Assessment Using INSC SP-V7**

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### Abstract

Assessments of the RELAP5/MOD3.2 computer code using critical heat flux data from three sets of experiments have been performed independently by analysts at the Electrogorsk Research and Engineering Center and the Idaho National Engineering and Environmental Laboratory. The experiments, performed at the KS-1 and V-200 facilities, investigated dryout at the top of rod bundles with geometry typical of VVER reactors. The two assessments were compared, investigating differences in the input models and explaining the resultant differences in the calculations. The differences between the two sets of calculations were generally much smaller than the differences between the calculations and the data. Both assessments found that the code calculations were in minimal agreement with the data, and recommended the development of a more applicable critical heat flux model for the code. Recommendations for the input models included accurately describing the bundle geometry and not using the thermal front tracking model in heated bundles.