

## Assessment of RELAP5/MOD3.2.2beta Code for the LOFT L9-1 Experiment

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### Abstract

The RELAP5/MOD3.2.2beta code was assessed on the predictability of the thermal-hydraulic phenomena in primary and secondary coolant system during the LOFT test L9-1. The L9-1 test performed at the LOFT facility was an experiment to simulate a total loss of feedwater (TLOFW) accident with delayed reactor scram and no auxiliary feedwater injection. From comparisons of the code predicted results with experimental data, it was concluded that the code was capable of simulating the thermal-hydraulic behavior during the short term phase of LOFT L9-1 test. In addition, it was identified that three parameters such as the steam generator (SG) nodalization, SG U-tube heat transfer area, and loss coefficient of the pressurizer spray valve had a significant effect on the calculation results for the LOFT test L9-1.