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The Establishment of RELAP5/SNAP Model for Kuosheng Nuclear Power Plant

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Abstract : After the measurement uncertainty recapture (MUR) power uprates, Kuosheng nuclear power plant (NPP) was uprated the power from 2894 MWt to 2943 MWt. For power upgrade, several codes (e.g., TRACE, RELAP5, etc.) were applied to assess the safety of Kuosheng NPP. Hence, the main work of this research is to establish a RELAP5/MOD3.3 model of Kuosheng NPP with SNAP interface. The establishment of RELAP5/SNAP model was referred to the FSAR, training documents, and TRACE model which has been developed and verified before. After completing the model establishment, the startup test scenarios would be applied to the RELAP5/SNAP model. With comparing the startup test data and TRACE analysis results, the applicability of RELAP5/SNAP model would be assessed.

Keywords : RELAP5, TRACE, SNAP, BWR
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