

The Study of Ultimate Response Guideline of Kuosheng BWR/6 Nuclear Power Plant Using TRACE and SNAP

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Abstract : In this study of ultimate response guideline (URG), Kuosheng BWR/6 nuclear power plant (NPP) TRACE model was established. The reactor depressurization, low pressure water injection, and containment venting are the main actions of URG. This research focuses to evaluate the efficiency of URG under Fukushima-like conditions. Additionally, the sensitivity study of URG was also performed in this research. The analysis results of TRACE present that URG can keep the peak cladding temperature (PCT) below 1088.7 K (the failure criteria) under Fukushima-like conditions. It implied that Kuosheng NPP was at the safe situation.

Keywords : BWR, TRACE, safety analysis, ultimate response guideline (URG)

Conference Title : ICANTNE 2017 : International Conference on Applications of Nuclear Techniques and Nuclear Engineering

Conference Location : Lisbon, Portugal

Conference Dates : April 16-17, 2017