

## **The SBO/LOCA Analysis of TRACE/SNAP for Kuosheng Nuclear Power Plant**

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**Abstract :** Kuosheng Nuclear Power Plant (NPP) is located on the northern coast of Taiwan. Its nuclear steam supply system is a type of BWR/6 designed and built by General Electric on a twin unit concept. First, the methodology of Kuosheng NPP SPU (Stretch Power Uprate) safety analysis TRACE/SNAP model was developed in this research. Then, in order to estimate the safety of Kuosheng NPP under the more severe condition, the SBO (Station Blackout) + LOCA (Loss-of-Coolant Accident) transient analysis of Kuosheng NPP SPU TRACE/SNAP model was performed. Besides, the animation model of Kuosheng NPP was presented using the animation function of SNAP with TRACE/SNAP analysis results.

**Keywords :** TRACE, safety analysis, BWR/6, severe accident

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