Using HABIT to Estimate the Concentration of CO2 and H2SO4 for Kuosheng Nuclear Power Plant

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Abstract : In this research, the HABIT code was used to estimate the concentration under the CO₂ and H₂SO₄ storage burst conditions for Kuosheng nuclear power plant (NPP). The Final Safety Analysis Report (FSAR) and reports were used in this research. In addition, to evaluate the control room habitability for these cases, the HABIT analysis results were compared with the R.G. 1.78 failure criteria. The comparison results show that the HABIT results are below the criteria. Additionally, some sensitivity studies (stability classification, wind speed and control room intake rate) were performed in this study.

Keywords : BWR, HABIT, habitability, Kuosheng

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