Introduction: With the ageing of nuclear plants, there are growing concerns regarding the reliability of existing asset management policies. As the performance of the system decreases with time, it is vital to incorporate these changes into the risk analysis, especially for systems of this importance.

Research Aim: To identify optimal asset management strategies for existing and future NPPs in light of the degradation phenomena.

Proposed Approach: Coloured Petri Nets have been identified as a tool to tidily model the dynamic behaviour of the plant’s systems.

Future Work: Build the CPN model and incorporate the currently used event trees, degradation models and operational & management decision trees.