## Probabilistic Safety Assessment of Nuclear Power Plants, & Non-Nuclear Reactor Facilities



## Various Levels in PSA of AHWR

- Probabilistic Safety Assessment (PSA) presents a structured framework for quantitative evaluation of safety of facility under consideration, which can provide valuable input to designers, utilities and regulators.
- Level 1 PSA of Advanced Heavy Water Reactor (AHWR) has been carried out, for full power operation of the reactor with reactor core as the source of radioactivity.
- Internal as well as external initiating events such as seismic are considered for the analysis for estimation of the core damage frequency (CDF). Preliminary Level-2 PSA is also carried out considering internal events for the estimation of Large Early Release Frequency (LERF).
- Similarly, PSA of Indus-II accelerator, 10 MeV, 10kW Linac, electron industrial accelerator has been carried out. Also, PSA for critical facilities such as Special Oxide Metal Plant, Waste Management plant (SOMP), Salt preparation facility for MSBR, etc. was performed to assess the hazardous / toxic scenarios.