

EU Training Course on “T/H analyses from regulatory perspective for NPP accident analysis”

Duration

1 Week

Content

The module will provide a presentation and discussion of the accident analysis to be performed and related available computer codes for T/H and fluid dynamics analyses in light water reactors technology with reference to PWR, BWR, AP600. WWER designs. Methods and models used for reactor core heat transfer (link with core neutronics codes), reactor coolant system (primary and secondary in PWR), safety systems, protection and control systems, relief and safety valves operation, link with containment codes, etc. will be presented and discussed with focus on capability, accuracy, key issues of models, codes validation will be presented and discussed.

Key aspects of T/H analyses in DBA and DEC scenarios will be presented together with assumptions, margins and approach (conservative or not).

Requirements of content of Accident Analysis and related key information to be reported in the SAR for regulatory review will be deeply presented and discussed.

Use of codes for realistic analysis in support to PSA study will also be highlighted.

Practical cases and examples will be elaborated with reference to existing applications.

Achievements

The attendees will attain the knowledge, and learning of key aspects of available T/H codes, their adequacy and capability for modelling and analyzing NPP operational, DBA and DEC conditions.