Training program

Report of Contributions

https://indico.psi.ch/e/11729

Contribution ID: **2** Type: **not specified**

PTS benchmark

The main topic of the training course will be PTS analysis based on deterministic and/or probabilistic approach. The trainee will get background on PTS analysis in general, including all aspects from TH analysis to structural mechanics and finally to fracture mechanics analysis. Moreover, the basics for probabilistic approach in the scope of PTS analysis will be explained.
In order to strengthen the trainees skills a small practical work dealing with fracture mechanics assessment in the scope of the APAL benchmark (either deterministic or probabilistic) will be performed and documented.

Presenter: Dr TIETE, Ralf (Framatome GmbH)

Contribution ID: **3** Type: **not specified**

Structural part of PTS analyses

Intensive training course focussed on structural analyses for PTS.

Presenter: Dr PIŠTORA, Vladislav (UJV rez)

Contribution ID: **4** Type: **not specified**

Application of RELAP5 to TH analyses for PTS assessment

Intensive training course focussed on thermalhydraulic analyses for PTS, both theoretical and practical training.

Presenter: Dr KRÁL, Pavel (UJV rez)

Contribution ID: **5** Type: **not specified**

ABAQUS for fracture mechanics analysis

This module covers the fracture mechanics analysis of RPV materials under pressurized thermal shock using the finite element method in ABAQUS. This requires that the participant has basic knowledge in ABAQUS software as well as intermediate knowledge on fracture mechanics analysis. A simple example is developed and analyzed.

Presenter: MORA MENDEZ, Diego Fernando (PSI - Paul Scherrer Institut)

Contribution ID: **6** Type: **not specified**

Deterministic structural integrity analysis of RPV under PTS loads & technical visits to two major facilities in Switzerland

The objective of the course is to obtain intermediate knowledge on how to perform thermo-mechanical and fracture mechanics analyses of a reactor pressure vessel (RPV) subjected to pressurized thermal shock (PTS) loads with three-dimensional models of the RPV FE-models. The software to be used is ABAQUS. The course covers only deterministic integrity analyses of the RPV on the framework of the APAL project structural analysis benchmark.
This part of the course will be Instructor-led training: This takes place in a classroom, with a trainer presenting the material. The trainer can answer specific questions or direct them to further resources. No direct practice will be given.
The course include two technical visits:
• Hotlab at Paul Scherrer Institute (PSI)
• Leibstadt power plant

Presenter: MORA MENDEZ, Diego Fernando (PSI - Paul Scherrer Institut)