

End user workshop: Towards the definition on best practice for advanced PTS analysis for integrity assessment of RPV



Tuesday 14 May 2024 - Wednesday 15 May 2024

Warsaw University of Technology

Scientific Programme

Day 1

Welcome and registration

Session 1. RPV Integrity Studies. Topics include:

Description of APAL

Residual stress (RS) consideration in the analysis

Warm pre-stress (WPS) approach applied in PTS

LTO improvements relevant for PTS analysis

Session 2: Selection of overcooling sequences. Topics include:

General considerations

Precursors

Categorization of sequences of initiating events and corresponding criteria

Initiating events groups

Session 3: Thermal hydraulic analyses. Topics include:

Introduction to thermal hydraulic analysis for PTS evaluation

State of the art for thermal hydraulic analysis

Computer codes and models

Dealing with uncertainties in PTS analysis

Example of conservative TH analysis for PTS

Example of BEPU for PTS

Day 2

Session 4: Deterministic Pressurized Thermal Shock analysis in Nuclear Power Plant. Topics include:

Temperature and stress field calculations

Crack tip loading

Integrity assessment

Session 5: Probabilistic Pressurized Thermal Shock analysis in Nuclear Power Plant. Topics include:

Temperature and stress field calculations

Crack tip loading

Integrity assessment

Session 6: Analysis of nozzles. Topics include:

Governing transients

Postulated defect location

Temperature and stress field

KI estimation methods and integrity assessment

NOTE: The detailed agenda of the workshop will be available soon and could be subjected to changes