Training module offer from PSI

Name of the module: Deterministic structural integrity analysis of RPV under PTS loads & technical visits to two major facilities in Switzerland	**Description**: The objective of the first part 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. 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 second part of the course include two technical visits: • Hotlab at Paul Scherrer Institute (PSI) • Leibstadt power plant
Offered by: PSI **Module category:** Intermediate **Discipline:** Fracture mechanics analysis **Dates:** 25.10.23 – 26.10.23	**Trainer**: Diego Mora **Contact**: diego.mora@psi.ch **Duration**: 1.5 days **Other relevant information:** • This course is only offered on-site. • Agenda of this event is attached. • Maximum number of participants: 10

Autumn training course on structural integrity analyses of RPV under PTS loads

Paul Scherer Institute
25 – 26 October 2023

AGENDA

1.1 APAL TRAINING SCHOOL DAY 1

Date 25th October

Time	Topic	Person in charge
8:45 – 9:00	Welcome and registration	
9:00 – 9:45	Pressurized thermal shock background	Diego Mora
9:45 – 10:30	Temperature and stress analysis of RPVs	Diego Mora
10:30 – 11:15	Basics of fracture mechanics	Diego Mora
11:15 – 11:30	Coffee break	
11:30 – 12:15	Temperature and stress analysis in FEM software Abaqus	Diego Mora
12:15 – 13:00	Fracture mechanics methods in FEM software Abaqus	Diego Mora
13:00 – 14:00	Lunch	
Technical visit to HotLab		Chair: Marco Streit (PSI)
14:00 – 17:00	A guided tour of the nuclear facility Hotlab (HL) of PSI lasts 2 hours. Guided tours are available for groups with maximum 10 people.	Hotlab staff
	End of the session	

1.2 APAL TRAINING SCHOOL DAY 2

Date 26th October

Time	Topic	Person in charge
Technical visit to nuclear power plant Leibstadt		Chair: Leibstadt
8:30 – 11:30	A guided tour of the Leibstadt nuclear lasts 1.5 hours. Guided tours are available for groups with maximum 10 people. 8:00 Departure from PSI 8:30 Arrival at Leibtstadt. 11:30 End of the visit 12:00 Arrival at PSI	Leibstadt staff
12:00 – 13:00	Lunch	
	End of the session	

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