

« Advanced deterministic and
probabilistic integrity analyses of RPVs
subjected to PTS Loading - Lessons
learned from APAL »

Institute for Radiological
Protection and Nuclear
Safety (IRSN), Paris
17 – 18 September. 2024

AGENDA

APAL FINAL SEMINAR DAY 1			
Date 17 th September			
Time	Topic	Person in charge	Mode
9:00 – 9:15	Registration		
9:15 – 9:30	Welcome to IRSN	Patrice Giordano	Onsite
9:30 – 9:45	Opening and APAL project overview	Vladislav Pištora	Onsite
State of the art overview		Chair: Carlos Cueto-F.	
9:45 – 10:05	Overview on the state-of-the-art in PTS	Carlos Cueto-F.	Online
10:05 – 10:25	Warm pre-stress (WPS) in PTS	Maksym Zarazovskii	Onsite
10:25 – 10:45	Residual stresses relevant to PTS	Szavai Szabolcs	Onsite
10:45 – 11:00	Coffee break		
Advanced thermal-hydraulics analysis procedures		Chair: Pavel Král	
11:00 – 11:40	Introduction to Thermo-hydraulics	Pavel Král	Onsite
11:40 – 12:25	Uncertainties and BEPU analyses	Ivor Clifford	Onsite
12:25 – 13:40	Lunch		
Advanced deterministic PTS analysis procedures		Chair: Ralf Tiete	
13:40 – 14:25	Structural and fracture mechanics benchmarks	Sebastien Blasset	Onsite
14:25 – 14:55	Assessment of LTO improvements & Thermo-hydraulic uncertainties	Miroslav Posta	Onsite
Advanced probabilistic PTS analysis procedures		Chair: Peter Dillström	
14:55 – 15:40	Basic probabilistic fracture mechanics benchmark	Petter Von Unge	Onsite
15:40 - 15:55	Coffee break		
15:55 – 16:20	Probabilistic fracture mechanics benchmark related to LTO improvements	Katharina Angermeier	Onsite
16:20 – 16:45	Probabilistic fracture mechanics benchmark related to TH uncertainties	Katharina Angermeier	Onsite
16:45 - 17:30	Probabilistic margin assessment	Klaus Heckmann	Online
End of the session			
19:30-21:30	Dinner		

APAL FINAL SEMINAR DAY 2

Date 18th September

Time	Topic	Person in charge	Mode
Best practice for advanced PTS analysis I		Chair: Szabolcs Szávai	
9:30 – 9:40	Introduction to APAL Best practice guidance	Judit Dudra	Onsite
9:40 – 9:55	Overview of PTS assessment	Carlos Cueto-F.	Online
9:55 – 10:15	Selection of events leading to PTS	Vladislav Pištora	Onsite
10:15 – 11:00	Thermo-hydraulic analyses	Pavel Kral	Onsite
11:00 – 11:15	Coffee break		
11:15 - 11:45	Temperature and stress field calculations	Ralf Tiete	Onsite
11:45 – 12:30	Deterministic fracture-mechanics assessment for PTS analysis	Ralf Tiete	Onsite
12:30 – 13:45	Lunch		
Best practice for advanced PTS analysis II		Chair: Szabolcs Szávai	
13:45 – 14:45	Probabilistic PTS analyses and uncertainties I	Andrey Shipsha	Onsite
14:45 - 15:00	Coffee break		
15:00 – 15:55	Probabilistic PTS analyses and uncertainties II	Andrey Shipsha	Onsite
End of the session			
Visit to PWR simulator & crisis technical center		Chair: Jerome Roy	
16:00 - 17:00	Visit to PWR simulator & crisis technical center	IRSN personel	Onsite



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