



International Atomic Energy Agency

FaSa NPP Test Case WG activities in 2010

**3rd Joint Working Group Meeting
FaSa Project, Nov./December 2010**

Objectives of the NPP Test Case WG

- Illustrate the application of the safety assessment methodology developed during the **DeSa** project to a decommissioning of a specific NPP (Rheinsberg) and to illustrate ways how the results of the safety assessments have been implemented in the specific NPP.
- Provide practical and useful recommendations on the evolution and use of safety assessment to be fed back to the **Deco Planning** and **Deco Conduct** WGs reports and, if possible, to **DeSa report**



NPP TC WG work plan (1)

- Analysis of the **Overarching Safety Assessment** developed in support of the KKR (Rheinsberg NPP) Deco Plan:
 - To investigate its conformance with the **DeSa Safety Assessment Methodology** to, possibly, fed back recommendations to DeSa Report;
 - To investigate its conformance with **Deco Planning WG Report** to provide practical and useful recommendations on the evolution and use of safety assessment in the FaSa Deco Planning WG Report.

NPP TC WG work plan (2)

- Analysis of the **Detailed Safety Assessments** developed in the KKR (Rheinsberg NPP) Deco Conduct phases:
- To investigate its conformance with the **DeSa Safety Assessment Methodology** to, possibly, fed back recommendations to DeSa Report;
 - To investigate its conformance with **Deco Conduct WG Report** to provide practical and useful recommendations on the evolution and use of safety assessment in the FaSa Deco Conduct WG Report.

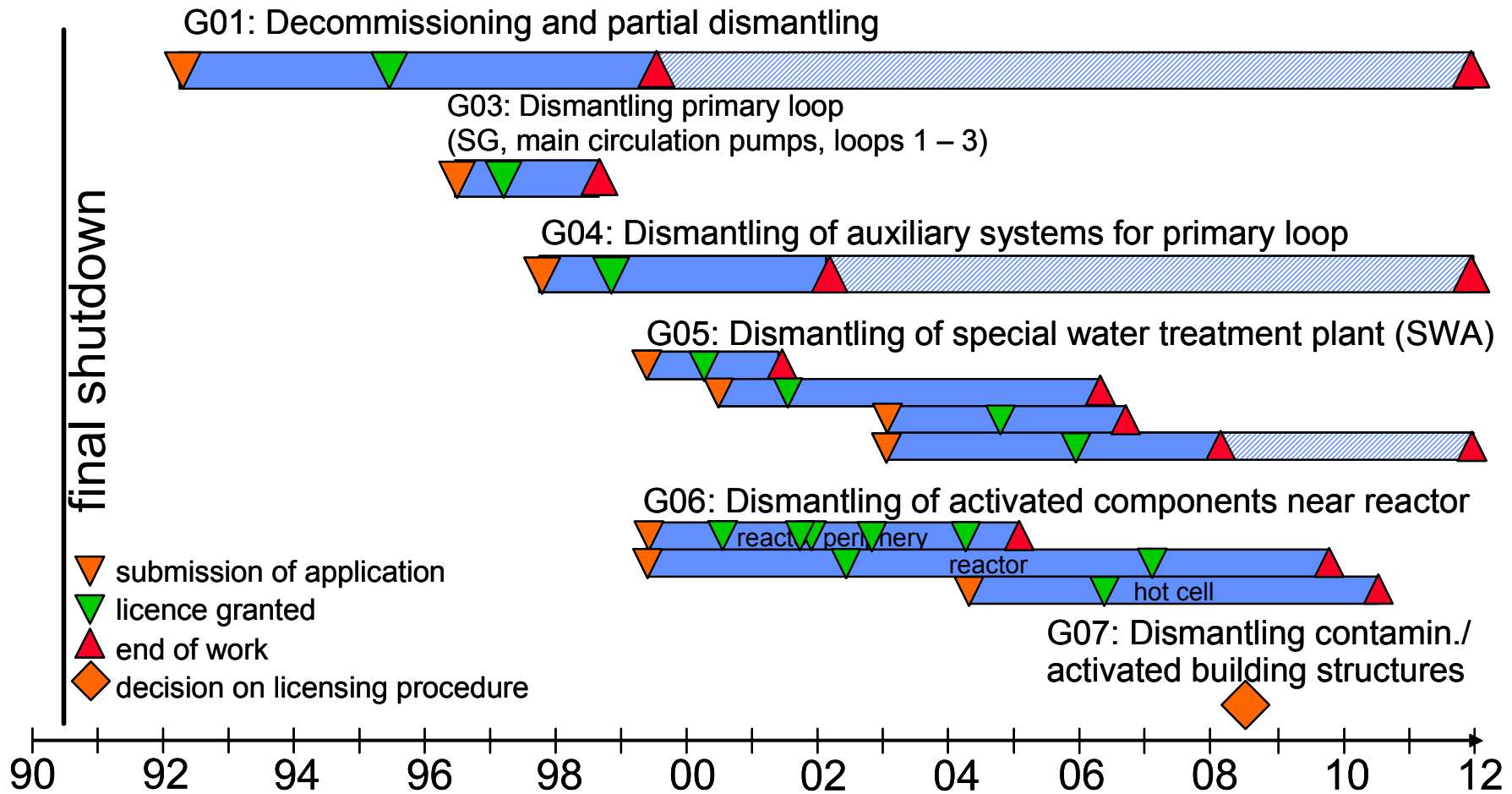
Outcomes from NPP Test Case Working Group meeting

Rheinsberg 25-28 May 2010

List of participants at Rheinsberg meeting

Name	Affiliation	Country
Karine Ghazaryan	Armenian Nuclear Power Plant Metsamor	Armenia
Ivana Dawidova	Czech Power Company	Czech Republic
Philippe Auffray	EdF - CIDEN	France
Hermann Langer	Vattenfall	Germany
Kerstin Kühn	Bundesamt für Strahlenschutz	Germany
Stefan Thierfeldt	Brenk Systemplanung GmbH	Germany
Jörg Möller	Kernkraftwerk Rheinsberg	Germany
László Juhász	National Research Inst. for Radiobiology and Radiohygiene	Hungary
Alvio Bassanelli	SOGIN SpA	Italy
Saulius Stravinskas	VATESI (Regulatory Body)	Lithuania
Pjotr Rubtsow	Scientific & Engineering Centre for Nuclear / Radiation Safety	Russia
Mirsolav Drahos	Nuclear Regulatory Authority (UJD)	Slovak Republic
Andrew Dietzold	UKAEA Cumbira	UK
John Rowat	IAEA	

KKR Phased Approach to Decommissioning



Decision taken during Rheinsberg meeting

- The list of activities agreed during the NPP TC WG meeting in Bonn has been discussed and found being too ambitious mostly due to the limited time and resources available.
- It has been decided to reduce the number of Safety Assessment to be investigated :
 - NPP TC WG report will investigate only three activities: one for the Overarching Safety Assessment and two for Detailed Safety (phase G06) , i.e. ***RPV removal one piece*** and ***RPV cutting in situ***.
- No investigation for Termination and End State will be pursued.

Outcomes from Rheinsberg meeting (1)

Overarching Safety Assessment

- A formal investigation of the KKR Overarching safety assessment vs. DeSa methodology has been performed.
- To facilitate the investigation a tabular format has been prepared with, in the left column, the DeSa text and the right column to be filled up during the WG meeting with information from KKR reports. Due to the complexity of the activity only DeSa section 3.3 has been scrutinised.
- Due to the lack of a complete English version of the KKR reports, to the limited resources and time available has been proposed to commit an external consultant to complete the activity.



Outcomes from Rheinsberg meeting (2)

Detailed SA for RPV removal one piece

- A formal investigation of the KKR detailed safety assessment for “RPV removal one piece” phase G06 vs. DeSa methodology has been performed.
- To facilitate the investigation a tabular format has been prepared with, in the left column, the DeSa text and the right column to be filled up during the meeting with information from KKR reports during the WG meeting.
- The DeSa sections scrutinised were 3.3, 3.4, 3.5, 7, 4, 5, 6 and 8.
- Due to the lack of a complete English version of the KKR reports, to the limited resources and time available has been proposed to commit an external consultant to complete the activity.



Table of Contents of NPP TC WG report (1)

- Section 1 – Introduction
- Section 2 - Description of the facility and decommissioning activities
- Section 3 - Safety Assessment Framework
- Section 4 - Overarching Safety Assessment
 - Subsection 4.1 - Hazard Analysis : Identification and screening
 - Subsection 4.2 - Hazard Analysis : Evaluation
 - Subsection 4.3 - Engineering Analysis
 - Subsection 4.4 - Evaluation of results and safety measures
- Section 5 - Safety assessment for the Direct dismantling of the RPV
 - Subsection 5.1 - Hazard Analysis : Identification and screening
 - Subsection 5.2 – Hazard Analysis : Evaluation
 - Subsection 5.3 - Engineering Analysis
 - Subsection 5.4 - Evaluation of results and safety measures



Table of Contents of NPP TC WG report (2)

- Section 6 - Safety assessment for the Removal of the RPV in one piece
 - Subsection 6.1 - Hazard Analysis : Identification and screening
 - Subsection 6.2 – Hazard Analysis : Evaluation
 - Subsection 6.3 - Engineering Analysis
 - Subsection 6.4 - Evaluation of results and safety measures
- Section 7 - Graded Approach
- Section 8 - Confidence Building in the safety assessment
- Section 9 - Use of the safety assessment results
 - Subsection 9.1 - Decommissioning Plan WG report
 - Subsection 9.2 - Decommissioning Conduct WG report
- Section 10 - Summary and Lesson Learned



Agenda for NPP TC WG meeting during FaSA Joint meeting (Vienna 2010)

Two days meeting during which the following activities are foreseen:

- Day 1 : review the text prepared by the external technical consultant related to the investigation of KKR reports vs. DeSa methodology for the three cases: Overarching safety assessment, detailed safety analysis for RPV removal one piece and RPV segmentation in situ.
- Day 2: investigate KKR reports vs. Deco Plan WG report and vs. Deco Conduct WG report

