

# 1<sup>st</sup> PKL2 Analytical Workshop

San Piero a Grado, Pisa, Italy  
28-29 April, 2010

## Tentative Agenda

**Workshop Chairman:** Miguel Sanchez (CSN), Vice-Chair of the PKL2 PRG

### Wednesday, 28 April 2010

**9:15 Opening remarks and introductions**

- Welcome by UNIPI, NEA and Areva NP
- Introduction by the Workshop Chairman

### **Technical Session 1: PKL-2 Project benchmark on Main Steam Line Break (test G3.1)**

*Session Chairman: Alessandro Del Nevo (UNIPI)*

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|---------------|--|
| 09.30 – 09.55 | <b>S-RELAP 5 Post Test Calculation of the PKL MSLB Experiment G3.1</b><br><i>G. Seeberger, AREVA NP GmbH, Germany</i>    |
| 09.55 – 10.20 | <b>Pre- and Post-test Calculations of PKL-III Test G3.1 with the Code ATHLET</b><br><i>H. Austregesilo, GRS, Germany</i> |
| 10.20 – 10.45 | <b>Post-test Analysis of PKL G3.1 using MARS</b><br><i>Seung Wook Lee, KAERI, Rep. of Korea</i>                          |
| 10.45 – 11.15 | <b>Coffee break</b>  |



## Technical Session 1: PKL-2 Project benchmark on Main Steam Line Break (test G3.1) (*Cont'd*)

- 11.15 – 11.40      **Semi-blind and post Thermal-Hydraulic Analysis of PKL test G3.1**  
J. Freixa, A. Manera, *PSI, Switzerland*
- 11.40 – 12.05      **The Simulation of Test PKL III G3.1 Using TRACE Version 5.194**  
S. O. Marshall, *US-NRC, USA*
- 12.05 – 12.30      **Simulation of MSLB experiment in PKL ITF: post-test G3.1 by CATHARE2 code**  
A. Del Nevo, F. D’Auria, *GRNSPG/UNIPI, Italy*
- 12.30 – 12.55      **Simulation of MSLB experiment in PKL ITF: post-test G3.1 by TRACE code**  
E. Coscarelli, A. Del Nevo, F. D’Auria, *GRNSPG/UNIPI, Italy*
- 13.00 – 14.00      **Lunch break**
- 14.00 – 14.25      **UPC post-test calculation for experiment PKL III G 3.1**  
R. Pericas, F. Reventos, *UPC, Spain*
- 14.25 – 14.50      **RELAP5 and TRACE simulations of PKL Test G3.1**  
J. F. Villanueva, *UPV, Spain*
- 14.50 – 15.15      **Activities performed in the context of the OECD PKL-2 project: benchmark on MSLB (test G3.1), semi-blind results comparison by “All participants” (presented by A. Del Nevo)**
- 15.15 – 15.45      **Open discussion**
- PKL-III G3.1 post test phase
  - Recommendation for follow-up of PKL-III G3.1 benchmark
- 15.45 – 16.15      **Coffee break**

## Technical Session 2: CFD and TH-SYS codes assessment based on PKL, PMK and ROCOM experiments

*Session Chairman: Francesco D'Auria (UNIFI)*

16. 15 – 16.40      **Semi-blind calculations of the ROCOM tests 1 and 2 with ANSYS-CFX**  
J. Herb, *GRS, Germany*
- 16.40 – 17.05      **In-vessel mixing phenomena: simulation of ROCOM Test 1 and 2 by ANSYS CFX**  
F. Moretti, F. D'Auria, *GRNSPG/UNIFI, Italy*
- 17.05 – 17.30      **Blind Calculation of MARS-KS for ROCOM Test**  
Seung Wook Lee, *KAERI, Rep. of Korea*
- 17.30 – 17.55      **Comparison of the results of the pre-test calculations with the experimental data for ROCOM test 1 and ROCOM test 2**  
S Kliem, *FZD, Germany*
- 18.00                **Meeting adjourn**

### Thursday, 29 April 2010

## Technical Session 2: CFD and TH-SYS codes assessment based on PKL, PMK and ROCOM experiments (Cont'ed)

*Session Chairman: Francesco D'Auria (UNIFI)*

- 09.00 – 10.00      **Post-test analysis for PMK test T1.1A by RELAP5**  
I. Tóth, G. Orban, L. Pernecki, *AEKI KFKI, Hungary*
- Post-test analysis for PMK test T1.1B by RELAP5**  
I. Tóth, G. Orban, L. Pernecki, *AEKI KFKI, Hungary*
- Post-test analysis for PMK test T1.2 by RELAP5**  
I. Tóth, G. Orban, L. Pernecki, *AEKI KFKI, Hungary*
- 10.00 – 10.30      **Open discussion**
- ROCOM benchmark and post test phase
  - PMK post tests
- 10.30 – 11.00      **Coffee break**



## Technical Session3: NPP application

*Session Chairman: Klaus Umminger (AREVA NP)*

- 11.00 – 11.25      **Simulation of PKL tests F2.2 and E3.1 with TRACE and RELAP5.  
Application to Almaraz NPP**  
C. Queral, *UPM, Spain*
- 11.25 – 11.50      **PKL2 G2.1 tests and their application to a typical 2-loop NPP**  
A. Bousbia Salah, *BEL-V, Belgium*
- 11.50 – 12.15      **Study of MSLB in PHWR NPP**  
M. Cherubini, W. Giannotti, F. D'Auria, *UNIPI, Italy*
- 12.15 – 12.45      **Open discussion**
- Recommendations for future tests and NPP code applications
- 13.00 – 14.00      **Lunch break**

## Final Session: Conclusions

*Session Chairman: Miguel Sanchez (CSN)*

- 14.00 – 16.00      **Discussion**
- Key statements from Chairmen (10 minutes each)
  - Discussion on:
    - Code performance, difficulties, property data, nodalisation, need for alternative ways of modeling, etc.
    - Recommendations for the future tests concerning data collecting and reporting from a modeling point of view
    - Recommendation for follow-up activities
    - Next Workshop
- 16.00                **Meeting end**

