



10th SCWR Information Exchange Meeting, 28-29 February 2012

MTA Centre for Energy Research (MTA EK), Budapest, Hungary

Organizing Committee

A.Horváth (MTA Center for Energy Research)
K.Yamada (International Atomic Energy Agency)
L.Leung (Atomic Energy Canada Limited)
T.Schulenberg (IKET)

28th February

9:00 A.Horváth (MTA EK), *Welcome, short summary on the Hungarian SCWR research*

Session 1: Status

9:20 K. Yamada (IAEA), *IAEA Activities on SCWRs*

9:50 D. Brady (NRC Canada), *Overview of SCWR Research in Canada Going Forward*

10:20 *COFFEE BREAK*

10:40 I. Pioro (UOIT), *Studies on SCWRs at the University of Ontario Institute of Technology: Review and Status.*

Session 2: Thermalhydraulics and Safety

11:10 L. Leung (AECL), *Strategy for Thermalhydraulics and Safety R&D in Support of Core and Fuel Designs for the Canadian SCWR*

11:40 H. Matsui, Y. Ishiwatari, S. Sakurai, R. Hamazaki, K. Kitoh, *The overview of the Japanese SCWR development*

12:10 -13:30 LUNCH

13:30 M. Ball, D.R. Novog (McMaster), *Core Physics, Thermalhydraulics and Reactor Safety Research on the Pressure Tube SCWR Design at McMaster University*

14:00 A. Churkin (Gidropress), *Temperature ambiguity of heated wall in the fluid flow at supercritical pressure*

14:30 M.Balasko, A.Kiss., L.Horvath, A.Horvath (MTA EK), *Study of natural circulation of SC water by neutron radiography*

15:00 A.Kiss (BME), *Local flow profile analysis on the heat transfer of supercritical water flowing in vertical tubes*

15:30 *COFFEE BREAK*

16:00 I. Otic (KIT), *Large Eddy Simulations of Turbulent Flows at Supercritical Pressure*

16:30 A. R. Imre, I. Tiselj and I.F. Barna (MTA EK), *Modified property-tables for supercritical water - the applicability of "traditional" thermohydraulic codes for SCWR*

17:00 L. Leung (AECL), *International Contribution to the IAEA-NEA Supercritical Heat Transfer Database*

17:30 K. Takase (JAEA), H. Mori (Univ. Kyushu), M. Akiba (Toshiba), K. Ezato(JAEA), T. Nakatsuka (JAEA), *Present Status of Thermal-Hydraulic Research for Development of Supercritical Water Reactors in Japan*

18:00 End of Day 1

18:30 21:00 Dinner in "Bajai Halászcsárda"



29th February

Session 3: Design

- 9:00** L. Leung (AECL), *Improving Safety, Economic, Sustainability, and Security of Nuclear Energy with Canadian Super-Critical Water-cooled Reactor Concept*
- 9:30** T. Schulenberg (IKET), *Design of the High Performance Light Water Reactor*
- 10:00** S. Higuchi, S. Sakurai, Y. Ishiwatari and Y. Kawashima (Toshiba), *Study on core of Japanese SCWR*

10:30 *COFFEE BREAK*

Session 4: Materials and Chemistry

- 11:00** F. B. Mayoral (CIEMAT), *Oxidation behaviour of Structural Materials for Supercritical Water Reactors: an analysis of the issue*
- 11:30** D.Guzonas (AECL), *The Role of the SCW environment on Corrosion in an SCWR*

12:00 -13:30 **LUNCH**

- 13:30** R.Novotny (JRC IE), *Corrosion and SCC research facilities in JRC IE Petten*
- 14:00** J.Kaneda (Hitachi), *Corrosion Properties of candidate alloys for SCWRs*
- 14:30** Sami Penttila (VTT), *Characterization of high performance alloys for SCWR conditions*

Session 5: Fuel

- 15:00** R. Fukač (CV Rez), *SCWR Fuel Qualification Test Facility - progress in design and analyses*
- 15:30** A. Brolly, Gy. Hegyi, G. Hordósy, Cs. Maráczy (MTA EK), *Preliminary Core Analysis of the SCWR Fuel Qualification Test Section in the LVR-15 Research Reactor*
- 16:00** Summary of the Information Exchange Meeting
- 16:30** End of Workshop, Visit to the Budapest Research Reactor (1 hour) on site