

Datum: 16 August 1996
Bearbeiter: Dr. P. Hofmann/ho

Preliminary Agenda

Second International QUENCH Workshop

Forschungszentrum Karlsruhe
September 17 - 19, 1996

Meeting Location: Fortbildungszentrum für Technik und Umwelt (FTU)
Room 236, First Floor

Tuesday, September 17, 1996

- 8.25 h Pick-up at Hotel ALFA (Karlstrasse am Ludwigsplatz)
- 8.30 h Pick-up at Hotel KÜBLER
- 8.50 h Registration

EXPERIMENTS (Chairman: P. Hofmann)

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| 9.10 h | Welcome and introduction | G. Heusener, FZK |
| 9.20 h | Experiments on quench behaviour of fuel rod segments | V. Noack,
P. Hofmann, FZK |
| 10.00 h | Hydrogen absorption of Zircaloy at high temperatures | M. Steinbrück, FZK |
| 10.20 h | High-temperature solubility of hydrogen in Zr 1% Nb and Zircaloy-4 | L. Matus, L. Maróti,
L. Vasáros, KFKI |
| 10.40 h | BREAK | |
| 11.00 h | Post-test appearance of a VVER-1000 bundle after in-pile test in the dryout and reflooding regimes | A. Goryachev, RIAR |
| 11.30 h | Experimental investigation of chemical interactions in B ₄ C filled PWR control rods above 1000 °C | L. Belovsky,
V. Vrtilková,
M. Valach, UJV |

POST-TEST CALCULATIONS (Chairman: T.J. Haste)

- 11.50 h Recalculation of single rod quench tests with the code WSPAN H. Steiner, FZK
- 12.20 h Analysis of small-scale FZK quench experiments using selected KESS modules K. Müller, IKE
- 12.40 h AEA Technology calculational support for FZK quench experiments R.P. Hiles, C.J. Fry
T.J. Haste, AEAT
- 13.00 h LUNCH
- 14.00 h Development of the code package SVECHA for the modelling of the FZK quench experiments M. Veshchunov, RAS
- 14.40 h Modelling of the heat exchange process of the quenched rod specimens A. Palagin,
V. Shestak, RAS
- 15.30 h BREAK
- 15.50 h Modelling of the fuel-cladding oxidation and mechanical deformation of the quenched rod specimens A. Boldyrev,
V. Shestak, RAS
- 16.30 h Individual discussions
- 17.00 h DEPARTURE TO HOTELS

Wednesday, September 18, 1996

- 8.35 h Pick-up at Hotel ALFA
- 8.40 h Pick-up at Hotel KÜBLER
- 9.00 h Zircaloy oxidation and H₂ evaluation in reflood conditions F. Oriolo, G. Fruttuoso,
M. Leonardi, M. Carta, PISA
M. Pezilli, ENEA
- 9.30 h Theoretical considerations on the determination of the H₂ source term A. Miassoedov, FZK

CODE SYSTEMS (Chairman: C. Allison)

- 10.00 h Development and assessment of SCDAP/RELAP5/MOD3.2 E. Coryell, INEL
Y.-S. Chen, NRC
- 10.30 h BREAK
- 11.00 h Strategy for simulating core degradation in sequences with molten pool formation by SCDAP/RELAP5 F. Oriolo, F. Bianchi
G. Fruttuoso,
M. Leonardi, PISA
- 11.30 h Reactor circuit conditions before reflooding; results of MELCOR severe accident calculations M. Sonnenkalb, GRS
- 12.00 h Possible thermohydraulic conditions during flooding of a reactor core H. Plank, KWU
- 12.20 h Status of the Scandinavian reflooding/ recriticality project L. Nilsson, SKI
- 12.40 h Individual discussions
- 13.00 h LUNCH
- 14.00 h EXCURSION (return to hotels and FZK at about 21.00 h)

Thursday, September 19, 1996

- 8.35 h Pick-up at Hotel ALFA
8.40 h Pick-up at Hotel KÜBLER

QUENCH FACILITY (Chairman: V. Noack)

- 9.00 h Status of the QUENCH Facility; quench experiments with fuel element simulators P. Hofmann, V. Noack, D. Piel, L. Schmidt, FZK
- 9.20 h Development of quench test measurement techniques L. Steinbock, FZK
- 9.40 h Status of FZK/IRS calculations for the projected QUENCH Facility C. Homann, W. Hering, V. Sanchez, FZK
- 10.10 h Design and scaling studies on the QUENCH Facility T.J. Haste, C.J. Fry, R.P. Hiles, AEAT
- 10.30 h **BREAK**
- 11.00 h Design Studies on the QUENCH Facility Th. Linnemann, RUB
- 11.20 h Uncertainties in the estimation of the pre-quench ZrO₂ scales found in ICARE2 and SCDAP/RELAP5 calculations W. Hering, Ch. Messainguiral, FZK
- 11.50 h General discussion, conclusions (end of the QUENCH Workshop)
- 12.15 h **LUNCH**

SCDAPSIM CODE DEVELOPMENT MEETING

(following the close of the QUENCH Workshop)

- 13.15 h • Status of SCDAP Development and Training Program (SDTP) C. Allison, ISS
- Coordination between SCDAP/RELAP5 model development and assessment activities and SDTP activities
 - Proposed SDTP charter, code development activities, and training meetings
- Round Table discussion (All)
- SDTP charter
 - Code development priorities for SCDAPSIM and other simulation software
 - SDTP priorities for training, user meetings
- 16.15 h Individual discussions
- 17.00 h DEPARTURE TO HOTELS

Friday, September 20, 1996

Individual discussions by previous arrangements