

SEGFSM Topical Meeting on LOCA Issues

Argonne National Laboratory, May 25-26, 2004
Energy Technology Division, Bldg. 212, Room A-157

8:15 Meet in Bldg. 212 Lobby (or go to end of hall for A-157)

8:30 Opening remarks and introductions

Meeting Chairman: Michael Billone, ANL

Session 1: Experimental work

- 8:45 - 9:15 C. Grandjean, G. Hache (IRSN, France): "LOCA Issues Related to Ballooning, Relocation, Flow Blockage and Coolability. Main Findings from a Review of Past Experimental Programs" (1)
- 9:15 - 9:45 M. Billone, Y. Yan and T. Burtseva (ANL, USA), "Post-Quench Ductility of Zircaloy, E110, ZIRLO, and M5" (2)
- 9:45 - 10:15 Y. Yan, M. Billone and T. Burtseva (ANL, USA), "LOCA Integral Tests on High-Burnup Zircaloy" (3)
- 10:15 - 10:30 Coffee Break
- 10:30 - 11:00 H. Chung (ANL, USA), "Differences in Behavior of Sn and Nb in Zirconium Metal and Zirconium Dioxide" (4)
- 11:00 - 11:30 L.Yegorova et al. (RRC KI, Russian Federation) "Major findings of E110 studies under LOCA conditions" (5)
- 11:30 - 12:00 Z. Hozer (KFKI, Hungary), "Derivation of LOCA Ductility Limit from AEKI Ring Compression Tests" (6)
- 12:00 - 12:30 L.W. Dickson and D.B. Sanderson (AECL, Canada), "Blowdown Test Facility CANDU LOCA Fuel Tests" (7)
- 12:30 - 13:30 Lunch (Cafeteria, Dining Rooms A and B)
- 13:30 - 14:00 F. Nagase and T. Fuketa (JAERI, Japan), "Thermal Shock Resistance of Irradiated PWR Claddings" (8)
- 14:00 - 14:30 J.C. Brachet, L. Portier et al. (CEA, Edf, Framatome-ANP, France), "Quantification of the $\alpha(O)$ and Prior- β Phase Fractions and Their Oxygen Contents in High Temperature Oxidised Zr Alloys (Zy-4, M5TM)" (9)

14:30 - 15:00 N. Waeckel, J.P. Mardon, (EdF, France) "Behavior of M5 vs Zr4 in Terms of Ballooning and Flow Blockage" (10)

15:00 - 15:30 S. Kim et al. (KAERI, Korea), "Mechanical Tests Based on Ring Tension Tests of High Burnup Nuclear Fuel Cladding Irradiated in Ulchin-2 NPP" (11)

15:30 - 16:00 Coffee Break

Session 2: Analytical work

16:00 - 16:30 V. Guillard, C. Grandjean, S. Bourdon, P. Chatelard, (IRSN, France), "Use of CATHARE2 Reactor Calculations to Anticipate Research Needs" (12)

16:30 - 17:00 J. Miettinen, J.-O. Stengård, S. Kelppe (VTT, Finland), "Application of the Coupled Thermalhydraulic - Fuel Behaviour Code FRAPTRAN/GENFLO in LOCA Test Evaluations" (13)

17:00 Adjourn (A-157 will be open available until 18:00 for added discussions)

May 26, 2004

9:00 Meet in A-157

9:00 - 9:30 M. Nissley (Westinghouse Electric, USA), "Realistic High Burnup UO_2 Fuel Response to a LOCA in a PWR" (14)

9:30 - 10:00 A. Charlier, J. Zhang (Tractebel, Belgium) "A Pragmatic Methodology to Assess the Fuel Burnup Effects in Licensing of LBLOCA Analysis for Belgian NPPs" (15)

10:00 - 10:30 L. Heins (Framatome-ANP, Germany), "Core Damage Extent Analysis to Fulfill an Additional LOCA Criterion" (16)

10:30 - 11:00 Coffee Break

Session 3: LOCA Fuel criteria

11:00 - 11:30 L. Belovsky (ALIAS, Czech Rep.), "Comment to the 10 CFR 50.46 LOCA Acceptance Criteria" (17)

11:30 - 12:00 C. Vitanza and M. Hrehor (OECD/NEA), "Considerations on LOCA Criteria Including High Burn-up Effect" (18)

12:00 - 12:30 R. Meyer (NRC, USA), "NRC Plans to Revise the LOCA Regulation, 10 CFR 50.46" (19)

12:30 - 14:00 Lunch (Cafeteria Dining Rooms A and B)

14:30 - 15:00 V. Vrtílková, L. Novotný, R. Doucha, and J. Vesely, et al. (UJP, Czech Rep.), "An Approach to an Alternative LOCA Embrittlement Criterion" (20)

15:00 - 15:30 Coffee Break (Group Picture)

15:30 - 17:00 Discussion and concluding remarks

17:00 Adjourn (A-157 will be available for extended discussions until 18:00)