

Overview of the exchanges after the December-2012 Workshop through the discussion forum established at the OECD-NEA

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Exchanges on the discussion forum (1 / 2)

- 09/07/13: Exchange between G. Hache (IRSN) and T. Sawabe (CRIEPI)
 - **Object: Accident Tolerant Control Rod**
 - **Item: Russian reference on dysprosium titanate available on the Journal on Nuclear Materials**
 - Major outcome: the choice of the absorber material at CRIEPI has also to allow a miscibility with molten UO_2 fuel, and must not affect the nominal operation conditions (high flux zone)

Exchanges on the discussion forum (2 / 2)

- 10/07/13: Exchange initiated by L. Ott (ORNL)
- **Object: Reference accidental scenario for BWR**
 - **Item: To consider 1F1 (STSBO) instead of 1F3 (LTSBO)**
 - 1F3: Expensive computation cost (modelling of at least 50 hours of the transient needed)
 - 1F3 is more difficult to model even before getting into a degraded core situation:
 - Uncertainty on the use of RCIC by the operator
 - The significant RPV drop after RCIC failure and the initiation of HPCI is difficult to model for some codes
 - The resultant degradation of HPCI performance introduces an uncertainty on the quantity of water effectively pumped
 - 1F3: after HPCI failure, uncertainty in the amount of water delivered to the DW sprays
 - 1F3: problems in modelling the Wetwell (saturation and local overheating)
 - **1F1: simpler, fewer uncertainties, bottom head failure within 15 hours (Sandia res.), closer to the order of magnitude of the targeted grace time₃**

Exchanges on the discussion forum (2 / 2)

- 10/07/13: Exchange initiated by L. Ott (ORNL)
- **Object: Reference accidental scenario for BWR**
 - **Item: To consider 1F1 (STSBO) instead of 1F3 (LTSBO)**
 - G. Hache (IRSN) agreed on this proposal
 - N. Waeckel (EDF): “at the workshop the 1F1 scenario had been first proposed to define a quantified target for an "ideal" ATF. But had been considered as not sufficiently documented (data and measurements) to run a complete calculation/analysis”
 - A. Sowder (EPRI): information on the EPRI’s technical event evaluation of the initial phase of the Fukushima Dai-ichi accident (Fukushima Technical Evaluation: Phase 1 -- MAAP5 Analysis)