IFERC Newsletter

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Meetings

4th Joint Technical Coordination Meeting between DDA and R&D (JTCM-4)

The 4th Technical Coordination Meeting (JTCM-4) between DEMO Design Activity (DDA) and R&D was held at the University of Tokyo, Kashiwa campus, in conjunction with 6th Technical Committee Meeting (TCM-6) on 4 February 2015. Participants were 13 from EU (8 remotely) and 27 from JA.

Main objectives of JTCM-4 are to understand and discuss the present status of EU/JA collaboration on R&D (i.e. SiC/SiC and JET ILW), the status and issues on the database of structural materials and a plan of further collaborative activities on functional materials by EU.

A new collaboration in Tritium on the investigation in Rokkasho of dust sampled at JET started in 2014. A shipment containing dust sample of JET was transferred to Rokkasho R&D facility. Collaboration is successfully undertaken also on compatibility of SiC and SiC/SiC composites with liquid Pb–Li alloy.

Recent progress of compatibility study of various SiC materials with liquid Pb-Li alloy was reviewed. The ENEA corrosion equipment has been started up successfully with delegates from ENEA Frascati and is almost ready to start the main tests with a completion of minor upgrade of the system. Other progress in this area includes identification of Li oxides in liquid Pb-Li and the influence of the Li oxides as reactant to enhance corrosion of SiC materials was examined.

The status of EU database & issues addressed in design code activities were reviewed. Main achievements in 2014 include optimization of LT&HT steel composition, production of steel batches of ~ 80 kg scale, simulation and production of W-reinforced CuCrZr and W fibre-W matrix composite fabrication.

In JA, gap analyses are underway by referring to new material requirement and Grade91 specification stated in JSME, ASME and RCC-MR, and specification of HT-9 (Fe-12Cr-1Mo-VW) for fuel-cladding material of fast reactor (for irradiation effects).

The activities for qualification of the EUROFER97 steel as the structural material of the 2 European ITER TBMs were summarised. The general overall strategy to qualify the EUROFER97 material is then shown based on the RAFM database, the supporting document, the gaps analyses and the actions to fill the gaps. The gaps analysis has been carried out based on the RAFM database and the supporting document.

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