EFDA GOAL ORIENTED TRAINING SCHEME

TASK AGREEMENT
WP 4

Trainee Report
Reporting Period: 01/10 – 12/10

Entire Period of Research Training: 06/09 – 05/12

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<tr>
<th>NAME OF TRAINEE:</th>
<th>CHRISTIAN ZEILE</th>
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<td>EMPLOYING INSTITUTION / TA PARTNER:</td>
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REPORT ON TRAINING ACTIONS

Introductory courses

- ANSYS training on transient magnetic simulations in fusion technology by CADFEM GmbH (06/10)

Project relevant introduction

- RCC-MR training course by AREVA NP in Cadarache (12/10)

Complementary training

- Effective Negotiations at FTU in Karlsruhe (06/10)

Project relevant meetings and conferences

- SOFT 2010 in Porto (09/10)

R&D training Phase I: Design of ITER relevant components

- CAD design of structural components
  - Further development and improvement of design concepts for the attachment system for structural integration of a breeder blanket to the port plug [1,2]

- Analyses of structural components
  - Supporting analyses for the evaluation of different design parameters by a sophisticated FEM model taking into account thermal and mechanical boundary conditions [1,2]
  - Use of advanced analyses techniques for the evaluation of the design concepts according to relevant design codes [1,2]
R&D training Phase II: Procurement of mock-ups

- Selection of manufacturing process
  - Manufacturing technologies tested in [3] with components with similar features have been chosen.
  - Joining technologies have been chosen and designed.

General performance in comparison to career development plan

Overall good accordance with the career development plan. Most of the training courses specified in the work program have been attended during the first 18 months. R&D training Phase I has been extended in order to reach a fully developed design. On the other hand, R&D training phase II can be shortened due to the well known manufacturing technology necessary for the design.

References:

[3] H. Neuberger et al., Preliminary TBM box development and qualification work plan up to the realization of a TBM FMU by Industry, T22.2-D1, June 2009