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| **WPPWIE Deliverables Status Report** | | | | | **Date:** | | | 01-Sep-2022 | | |
| **Subproject:** | SP-ADC /  *Advanced Divertor Solutions for Power Exhaust in DEMO* | | | | **Deliverable ID** | | | PWIE-SP ADC.I.T-T002-D001/D002 | | |
| **Deliverable owner:** | P. Fanelli / F. Vivio (ENEA) | | | | **Deliverable due date** | | | 31-12-2022 | | |
| **WP Leader:**  **SP Coordinator:** | S. Brezinsek (FZJ)  G. Calabrò (ENEA) | | | |  | | |  | | |
| **Task title:** | SP-ADC.I / *Engineering boundary conditions related to DEMO ADC solutions* | | | | | | | | | |
| **Deliverable title:** | Engineering compatibility of best promising configurations described in WP ADC-DTT’s final report for DTT facility: recommendations for control and equilibria design (ENEA)  Engineering compatibility of best promising configurations described in WP ADC-DTT’s final report for DTT facility: recommendations for VDE and disruption consequences (ENEA) | | | | | | | | | |
| **Status:** |  | **Completed** |  | **Partially completed** | |  | **Delayed** | |  | **Cancelled** |
| Please write a short status report (max. ½ pages) here.  Please check the status of the deliverable(s) with a “x” in the row above.  If the deliverable(s) are delayed, please also indicate an estimated completion date in the report text.  If the deliverable(s) include machine time, please indicate the number of days that have been used for the deliverable(s) in the report text.  For reference, the specification of this task from the PMP is given below. | | | | | | | | | | |
| **Reference from PMP:** | | | | | | | | | | |
| The SP-ADC are addressing the physics work regarding the advanced divertor solutions for DEMO and the compatibility with engineering constraints. The engineering part focus on the compatibility with DEMO constraints in view of configurations, stability, and thermomechanical and electromagnetic loads; the work is coordinated with the FTD. Compatibility of potential DEMO ADC solutions with DTT will be also analysed. Subproject SP-ADC.I will exploit engineering DEMO compatibility for most favourable ADC solutions configurations in terms of plasma-wall contact points during disruptions and initial definition of the required size and configuration of the divertor including baffle. | | | | | | | | | | |
| **Inputs required:**   * DEMO ADC equilibria configurations and geometry layout delivered by WP ADC-DTT’s final report * New ADC equilibria that will produced under WPDES activity (which have a realistic TF coil configuration, hence PF coil)   Recommendations for engineering aspects of DEMO VS control (delivered by WP ADC-DTT’s final report and WPPMI 2020 activity) | | | | | | | | | | |
| **Tasks to be performed:**   * Plasma-Wall contact points during disruptions and initial evaluation of ADC transients for the heat flux impact point of view   Initial definition of required size and configuration of ADCs divertor including the baffle. | | | | | | | | | | |
| **Deliverables:**   |  |  | | --- | --- | | **Deliverable ID:** | **Deliverable Title:** | | D001 | Plasma-Wall contact points during disruptions and initial evaluation of ADC transients for the heat flux impact point of view (ENEA) | | D002 | Initial definition of required size and configuration of ADCs divertor including the baffle (ENEA) | | | | | | | | | | | |
| **Management Information**  **Human Resources (2022)**:   |  |  |  |  | | --- | --- | --- | --- | | **Deliverable Owner** | **Beneficiary** | **PM** | **Deliverable (Team)** | | P. Fanelli | ENEA | 8 | D001 (C. Stefanini, F. Giorgetti, R. Lombroni, F. Vivio and V. Berardi) | | F. Vivio | ENEA | 2 | D002 (P. Fanelli, C. Stefanini, F. Giorgetti, P. Fanelli) | | **Total** |  | 10 |  |   **Machine Resources (2022):**   |  |  |  |  | | --- | --- | --- | --- | | **Device** | **Beneficiary** | **Days** | **Related Deliverable** | | n.a. |  |  |  | |  |  |  |  |   **Other resources:**  **Collaborations:**   * WPTE, WPDES * EU-CHINA   **Other information:**  Connected to TSVVs associated with WPPWIE | | | | | | | | | | |