

JOB DETAIL

Ref. IO1771 - 9/30/2016

Transient Thermal Hydraulic Analyst - PED-063

Main job	Hydraulics
Department	PED / Plant Engineering Department
Division	PED / Cooling Systems Engineering Division
Section	PED / CSED / Cooling Water System Section
Job Family	Engineer - EC
Application Deadline (MM/DD/YYYY)	11/13/2016
Grade	P1
Direct employment	Not required
Purpose	-To perform transient analyses for the ITER Tokamak Cooling Water System (TCWS) with particular focus on the Vacuum Vessel Primary Heat Transfer System (VV-PHTS), the Integrated loop of Blanket, Edge Localized Mode-Vertical Stabilization Coils, and Divertor Primary Hath Transfer System (IBED-PHTS) and the Drying System (DYS) in support to Final Design. -To study the different configurations of the TCWS from First Plasma to Deuterium/Tritium operation.
Main duties / Responsibilities	-Performs transient analyses for the ITER Tokamak Cooling Water System (TCWS) with particular focus on the Vacuum Vessel Primary Heat Transfer System (VV-PHTS), the Integrated loop of Blanket, Edge Localized Mode-Vertical Stabilization Coils, and Divertor Primary Hath Transfer System (IBED-PHTS) and the Drying System (DYS) in support to Final Design; -Performs transient analyses simulating normal operation conditions, baking and respective transitions, as well as upset or perturbed conditions; -Performs transient analyses of incidental and accidental events to evaluate plant response and test the safety features of the TCWS; -Develops a coupled model of the VV-PHTS, IBED-PHTS and DYS to simulate conditions in which the three systems work in parallel, to be used as a basis for the TCWS simulator; -Collaborates with process engineers to finalize the TCWS design (e. g. equipment sizing, I&C, etc.) and supports development of operational procedures for the TCWS, for normal operation and incidental and accidental conditions; -Analyzes in dynamic mode the different TCWS configurations from First Plasma to DT operation; -Supports the Safety Department in the formal safety assessment of the TCWS; -Support TCWS section for any activity related to dynamic simulations of TCWS subsystem; -Performs other duties in support of the project schedule; -May be requested to be part of any of the project team and perform other duties; -Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics. -Reports to Cooling Water System Section Leader; -In response to requests from the Director-General and/or Plant Engineering Department (PED) Head, or proactively, informs the DG/PED Head of any important and urgent issues that cannot be handled by the concerned line management and may jeopardize the achievement of the Project's objectives.
Measures of effectiveness	-Develops accurate reports on transient analyses of TCWS for the Final Design Review; -Develops a coupled model of the VV-PHTS, IBED-PHTS and DYS to simulate conditions in which the three systems work in parallel, to be used as a basis for the TCWS simulator within the defined schedule; -Develops transient analyses for the different TCWS configurations from First Plasma to DT operation within the defined schedule;

My space

 See jobs

My job alert

- Supports efficiently the finalization of the TCWS design;
- Develops effectively reports to be submitted to the Safety Department for the formal safety assessment of the TCWS;
- Develops efficiently V&V reports for the software used to perform the analyses.

Project Construction Phase

Level of study	At least Master's Degree or equivalent
Diploma	Nuclear Engineering field
Level of experience	At least 2 years
Technical experience / knowledge	-Extensive experience in similar jobs (involving similar work responsibilities) and/or additional training certificates in relevant domains may be considered a reasonable substitute for the required educational degree.
Social skills	Ability to work effectively in a multi-cultural environment Ability to work in a team and to promote team spirit
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)
General skills	-At least 2 years' experience in transient analyses of nuclear cooling water systems; -Experience in design of nuclear cooling water systems (i. e. pumps and Heat exchanger sizing, development of operational procedures, etc.); -Experience in transient analyses of cooling water systems of fusion reactors and/or in a relevant software house is an advantage.
Others	-Knowledge and experience in the use of Relap5; -Experience in simulator tools (e. g. EcosimPro) is an advantage.
Languages	English (Fluent)

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