

IO1590 Process and System Engineer - TCWS-011

General information

Job category	Standard
Status	Published
Department	PED / Plant Engineering Department
Section	PED / Tokamak Cooling Water System

Job description

Main job	Engineering - Mechanics
Title of the position	Process and System Engineer - TCWS-011
Job family	Coordinating Engineer
Grade	P4
Direct employment	Not required
Purpose	<p>To manage the process engineering of the Primary Heat Transfer Systems (PHTS's) of ITER Tokamak Cooling Water Systems (TCWS) and ancillary systems as well as functional integration with clients;</p> <p>To manage the preparation of data sheets for the procurement of the TCWS equipment;</p> <p>To contribute to the preparation of the Technical Specification for the procurement, and the fabrication and testing of the TCWS equipment;</p> <p>To produce the valid documentation for the commissioning of TCWS (Commissioning Technical specifications and Commissioning Procedures).</p>
Main duties / Responsibilities	<p>Develops and finalizes the process and system engineering of TCWS namely for the PHTSs, the Chemical and Volume Control Systems (CVCS's), the Draining and Refilling System (DRS) and Drying System (DYS);</p> <p>Manage technical activities in process and system engineering functional areas;</p> <p>Develops and finalizes the functional analysis, control logic design studies and operational guidelines for all the TCWS;</p> <p>Oversees and controls sizing calculations for TCWS equipment (e.g. pumps, heat exchangers, filters, demineralizers, etc.);</p> <p>Contributes to the design and conformity assessment of the TCWS pressure equipment according to the French regulations (ESP/ESPN) and monitoring required design codes and standards as per Licensing Design Basis;</p> <p>Controls and reviews the fabrication of TCWS equipment according to the prescriptions of the French Nuclear Regulator and also following the indications of the concerned Agreed Notified Body;</p> <p>Assists with the management of the Instrumentation & Control (I&C) Engineering design to develop the control logic design studies and their integration in the TCWS system;</p> <p>Responsible for Monitors the management of the design, procurement, assembly and/or installation and operation of the TCWS piping and components in close collaboration with Domestic Agencies and other ITER IO Directorates;</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan;</p> <p>May be requested to belong to any project team dealing with above activities and performs other duties upon management request;</p> <p>Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.</p> <p>Coordinated by the Tokamak Cooling Water Project Manager, reports to the Plant Engineering Department Head;</p> <p>Acts as an interface with other internal and external resources for the TCWS system;</p> <p>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.</p> <p>Ensures the satisfaction of safety and functional thermal hydraulic requirements flow down;</p>

Measures of effectiveness	Produces reports for TCWS design and system integration in a timely manner;
	Completes the design of the TCWS equipment within defined costs and in a timely manner;
	Oversees, coordinates and controls efficiently activities for the defined scope of responsibilities;
	Manages the preparation of the Technical Specifications for the TCWS equipment procurement in a timely manner.
	SAP ID: SAP Id: 50003085
	Project Construction Phase

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Nuclear or Mechanical Engineering.
Level of experience	At least 10 years
Technical experience/knowledge	At least a Master Degree or equivalent in Nuclear or Mechanical Engineering.
	At least 10 years' experience in the System Engineering of complex nuclear projects;
	Good experience in the Thermal-Hydraulic and Thermal-Mechanics Engineering of complex systems;
	Good experience in sizing calculations for Cooling circuits' equipment;
	Good experience in the Control Processes of Cooling Systems for Nuclear Power Plants or nuclear facilities.
	Good Project Management (cost, risks and schedule) and supervising activities experience is required.
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
Languages	English (Fluent)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	Knowledge of 2D-3D CAD software is required;
	Knowledge of specific software for Thermal-Hydraulic and Thermal-Mechanics calculations (e.g. ANSYS) is an advantage;
	Knowledge of Safety Analysis software is an advantage.