

IO1571 Cryogenic Process Engineer PED-009

General information

Job category	Standard
Status	Published
Department	PED / Plant Engineering Department
Division	PED / Cooling Systems Engineering Division
Section	PED / CSED / Cryogenic System Section

Job description

Main job	Engineering - Cryogenics
Title of the position	Cryogenic Process Engineer PED-009
Job family	Coordinating Engineer
Grade	P4
Direct employment	Not required
Purpose	<p>To ensure the integration, design, layout, construction and operation of the ITER Cryogenic System;</p> <p>To identify and detail the dedicated hardwired interlocks for the ITER cryogenic system's safe operation;</p> <p>To monitor the schedule to build the Cryogenic System and the programs for testing and commissioning the cryogenic equipment.</p> <p>Develops and reviews the Process and Instrumentation diagram in order to assess the process controls and required instrumentation;</p> <p>Ensures that requirements of the technical specifications are implemented by contractors and well justified;</p> <p>Ensures that performance of the cryogenic system is achieved during testing and commissioning phases;</p> <p>Develops and reviews the preparation of technical specifications for the cryoplant, cryolines and cryodistribution systems;</p> <p>Develops and reviews the process and design interfaces of the cryogenic components and subsystems;</p> <p>Designs the dedicated hardwired interlocks necessary for ITER cryogenic system's safe operation and shutdown sequences, in respect with Quality Assurance and other IO requirements;</p> <p>Develops and implements the required testing and commissioning program for the instrumentation and process control system;</p> <p>Develops and maintains the operation and maintenance procedures as well as spare requirements;</p> <p>Performs the training of the operators of the cryogenic system;</p> <p>Writes and reviews the technical specifications and baseline documentation for the ITER cryogenic system;</p> <p>Performs the required analysis to validate and improve the cryogenic system flexibility and reliability to operate over a full range of plasma scenarios;</p> <p>Prepares, revises and maintains the schedule to build the cryogenic system as well as the testing and commissioning program;</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan & upon management request;</p> <p>May be requested to belong to any project team dealing with above activities and perform 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>
Main duties / Responsibilities	<p>Reports to the Cryogenic System Section Leader;</p> <p>Acts as an interface between designers of the magnets, the Tokamak 80K thermal shields, the cryo-vacuum pumps and the buildings to support integration;</p> <p>In response to requests from the Director-General and/or Head of Plant Engineering</p>

Measures of effectiveness	Department (PED), or proactively, informs the DG/ Head of PED 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.
	Manages effectively interfaces between the cryogenic system and cryogenic users;
	Manages effectively plans for procurement, preparing installation, tests and commissioning within the defined schedule;
	Maintains effective communication with all parties delivering subsystems.
	ID SAP: 50000214
	Project Construction Phase

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Cryogenics or Process Engineering field
Level of experience	At least 10 years
Technical experience/knowledge	Excellent knowledge of industrially proven cryogenic equipment in world market and associated R&D for specific applications;
	A PhD in the related fields will be considered as an advantage;
	Good knowledge of factory acceptance tests and commissioning of complex equipment.
	Experience in the development, design, procurement and commissioning of large cryoplant and cryodistribution systems for fusion or accelerator applications;
	Experience in process engineering and analysis of operating modes for large cryogenic systems;
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	Experience in thermohydraulic analysis and numerical codes; Experience working with the design code and standards.
Languages	English (Fluent)