

IO1223 Fuelling System Technical Engineer CEP-133

General information

Job category	Standard
Status	Published
Department	DIP/Directorate for Central Engineering & Plant
Division	CEP / Fuel Cycle Engineering Division
Section	CEP / FCE / Fuelling and Wall Conditioning Section

Job description

Main job	Engineering - Mechanics
Title of the position	Fuelling System Technical Engineer CEP-133
Job family	Engineer - 1
Grade	G6
Direct employment	Required
Purpose	<p>-To integrate the process of Fuelling and Wall Conditioning (FWC) System with other process and components, and to develop system operational and control schemes.</p> <p>-To manage and support the system engineering activities for design, R&D, procurement, installation and commissioning of the FWC System.</p> <p>-To manage the design and system integration issues relating to the port plug integration for the Disruption Mitigation System and Glow Discharge Cleaning System and quality program for Safety Important Class (SIC) components.</p> <p>The key facts and figures of the FWC System are:</p> <p>-Injection of fuel (hydrogen, deuterium, tritium or helium) and impurity particles (argon, neon, or nitrogen) in the form of gas or cryogenic ice pellets into the plasma to control plasma density and ELM frequency, to study impurity transport;</p> <p>-Injection of impurity particles (helium, neon, deuterium or beryllium) in ~10 ms to mitigate energy loads on the plasma facing components during thermal quenches of plasma disruption and in ~50 ms to suppress runaway electrons during current quenches;</p> <p>-Reduction and control of impurity and hydrogenic fuel out-gassing from plasma-facing components and possible contribution to in-vessel tritium inventory control.</p>
Main duties / Responsibilities	<p>Project Construction Phase</p> <p>-Responsible for the process integration of FWC System & its utilities;</p> <p>-Controls process interfaces of FWC System with other systems and components, such as tritium plant, vacuum system, cryoplant, cooling water, power supply, CODAC, etc;</p> <p>-Manages physical interfaces of FWC Systems with building, tokamak machines such as vacuum vessel, in-vessel components, port plug facilities, etc;</p> <p>-Ensures the design, development & scheduling of the FWC System, including controlling functional & physical interfaces of FWC System with other systems and components;</p> <p>-Supervises the Domestic Agency's (DA) progress in the design, R&D activities & procurement of the FWC System;</p> <p>-Provides assistance to DA's and ITER Groups to carry out design, R&D, interface control and procurement;</p> <p>-Follows and maintains the schedule for the FWC System;</p> <p>-Provides technical support within the FWC section to maintain and document the internal and external interfaces respectively for the FWC System;</p> <p>-Performs other duties in support of the project schedule as described in the Detailed Work Breakdown Structure Schedule or Strategic Management Plan;</p> <p>-Performs other duties linked to the above purpose upon management request, as necessary;</p> <p>-Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.</p> <p>-Reports to the Fuelling & Wall Conditioning Section Leader;</p> <p>-Acts as an interface between other groups in the Fuel Cycle Engineering Division regarding drawings & CAD administration;</p> <p>-Interfaces with other Departments/Directorates as required by the fuelling system design, in</p>

Measures of effectiveness	<p>particular with the CAD & Design Coordination Division;</p> <p>-In response to requests from the Director-General (DG) and/or Director of Central Engineering & Plant (CEP) Directorate, or proactively, informs the DG/Director of any important and urgent issues that cannot be handled by the concerned line management & may jeopardize the achievement of the Project's objectives.</p>
	<p>-Coordinates and directs efforts of the ITER Organization (IO) and the DAs with respect to design, R&D, fabrication, installation and commissioning of the DMS and PIS;</p> <p>-Manages the quality program for the SIC components throughout the construction phase of the FWC system;</p> <p>-Supports the completion of the procurement activities of the FWC system in accordance with the defined schedule;</p> <p>-Support of the FWC System design, including identification of design changes required and establishing the priority level and means of their implementation;</p> <p>-Establishes a mechanism for the FWC System integration and interfaces with other ITER systems;</p> <p>-Maintains effective communication with all of interfacing system ROs of the IO and the DAs on tokamak fuelling, disruption mitigation and relating physics issues.</p>

Applicant criteria

Level of study	At least Bachelor's degree or equivalent
Diploma	Mechanical or Electric Engineering
Level of experience	5 to 8 years
Technical experience	<p>-Experience in managing the design, construction, installation, commissioning and operation of fuelling systems in fusion devices or similar;</p> <p>-Knowledge of tritium safety, nuclear licensing, cryogenic system, vacuum pumping system and plasma physics is advantageous;</p>
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	-At least 2 to 4 years of project management experience.
Languages	English (Working)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)