JOB DETAIL

Ref. IO2012 - 8/8/2018

Fuelling Mechanical Engineer PED-230/233

Main job	Fusion
Department	PED / Plant Engineering Department
Division	PED / Fuel Cycle Engineering Division
Section	PED / FCED / Fuelling & Wall Conditioning Section
Job Family	Engineer - 2
Application Deadline (MM/DD/YYYY)	09/23/2018
Grade	P3
Direct employment	Required
Purpose	To lead the mechanical design of the baseline Shattered Pellet Injection (SPI) Disruption Mitigation System (DMS), upgraded SPI and alternative DMS technologies. To manage integration of DMS and Glow Discharge Cleaning System (GDC) in port plugs, port interspace support structures (ISS) and port cell support structures (PCSS). To manage and supervise the design and procurement of DMS, DMS utilities and DMS infrastructure. Ensures the mechanical design, development and scheduling of the baseline SPI DMS, upgraded SPI and alternative DMS technologies, including controlling the functional and physical interfaces of DMS with other systems and components,; Ensures the design and procurement of SPI utilities such as the cryogenic and gas distribution systems and DMS infrastructures such as port plug, ISS and PCSS;
Main duties / Responsibilities	Provides assistance to the DAs, contractors and ITER groups to carry-out engineering, R&D, interface control and procurement work; Integrates the DMS and GDC inside ports (upper and equatorial); Prepares technical specifications and documents as required in preparation for DMS, port lug, ISS and PCSS procurement and manages the procurement; Leads the analysis of mechanical and thermal stresses, stresses due to electro-magnetic forces, dynamic analysis, neutronics assessment for integrated ports; Coordinates the design of port interfaces with main tokamak (vacuum, cooling, buildings, remote handling etc.); Prepares for the assembly of DMS and GDC within ports and installation of the port on ITER; Updates and takes all relevant supporting engineering documents through a review; Implements DMS R&D Work Plan and supports the International DMS Task Force; Supports the Fuelling and Wall Conditioning (FWC) Section for the transversal scope of the Section; Supports the machine assembly and commissioning teams as a technical responsible engineer; May be requested to be part of any of the project/construction teams and to perform other duties in support of the project schedule; Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics. May be required to work outside ITER Organization reference working hours, including nights, weekends and public holidays; Implements the technical control of the Protection Important Activities, as well as their propagation to the entire supply chain; Special notice: May be requested to work on beryllium-containing components. In this case, you will be required to follow the established ITER Beryllium Management Program for working safely with beryllium. Training and support will be provided by the ITER Organization.
Measures of effectiveness	Reports to the FWC Section Leader; In response to requests from the Director-General and/or the Head of the Plant Engineering Department (PED), 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. Assures the completion of the activities listed above in terms of Engineering, R&D, procurement and

	implementation in accordance with the required time schedule and within the authorized budget; Performs work safely and securely; Resolves efficiently any design and interfaces issues for FWC; Communicates and collaborates effectively and harmoniously with all ITER staff, DAs and contractors; Produces high quality analyses of mechanical and thermal stresses; Acts effectively on procurement topics with DAs and Contractors; Reviews technical specifications and documents in a timely manner. Project construction phase
Level of study	Master or equivalent degree
Diploma	Mechanical or electrical engineering or relevant
Level of experience	At least 8 years
Technical experience/knowledge	At least 8 years' experience in performing the design, construction, installation, commissioning and operation of fuelling systems in fusion devices or similar At least 2 years of project management experience; Knowledge of tritium safety, nuclear licensing, cryogenic system, vacuum pumping system and plasma physics is advantageous; Experience in coordinating activities and managing interfaces. 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	Ability to facilitate dialogue and negotiate with a wide variety of contributors and stakeholders; Ability to listen and adjust communication content and style to deliver messages; Ability to persist in the face of challenges to meet deadlines with high standards; Ability to apply high standards of team mindset, trust, excellence, loyalty and integrity.
Others	Capability with Computer Aided Design (CAD – with special attention to AVEVA PDMS) software is highly desirable. Capability with Structural analysis code such as ANSYS is highly desirable.
Languages	English (Fluent)