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JOB DETAIL

Ref. IO2033 - 10/23/2018

Power Electronic Engineer (PED-131)

Main job	Electricity
Department	PED / Plant Engineering Department
Division	PED / Electrical Engineering Division
Section	PED / EED / Coil Power Supply Section
Job Family	Engineer - 2
Application Deadline (MM/DD/YYYY)	11/22/2018
Grade	P3
Direct employment	Not required
Purpose	To manage and ensure surveillance during the installation activity and to perform the commissioning and testing activities for the ITER Reactive Power Compensation and Harmonic Filtering System (RPC&HF), which includes three large Static Var Compensators (SVC), based on Thyristor Controlled Reactors (TCR) and tuned filters with a total rated power of 750 Mvar, directly connected to a 66 kV ac distribution system. To perform both office-based and in-field engineering activities related to system commissioning, startup, operation and maintenance of the ITER RPC&HF, and large thyristor based "alternating current/direct current" (AC/DC) power converters that are part of the ITER Coil Power Supply System.
Main duties / Responsibilities	Is Responsible for the installation, testing and system commissioning of the components for the ITER RPC&HF system to ensure that components and subsystems will be installed and commissioned in accordance with the requirements as specified in the Procurement Arrangement (PA); Proposes and implements actions required to resolve design, construction, installation, commissioning, operation and maintenance issues; Develops plans and procedures for installation, acceptance tests, integrated commissioning, operation and maintenance of the component/system under the responsibility of the job holder; Is in charge of the system integration of the RPC&HF components, the Pulsed Power Electrical Network (PPEN), AC/DC power converters and ITER superconductive magnet systems; Performs the analysis of components and integrated system engineering and develops the procedures for the on-site acceptance tests; Supervises commissioning, on-site acceptance tests of RPC&HF system and executes the integrated commissioning with converter systems, PPEN, central systems including any required trouble shooting; Joins and contributes to pre-operation & maintenance activities, including on call duty operation team; Supports the application of Quality Assurance (QA) & Quality Control (QC) requirements and standards for components and systems, in close relation with the Quality Assurance & Assessment (QAA) Division; May be required to work outside normal working hours, including , nights, weekends and public holidays; May be requested to be part of any of the project/construction teams and to perform other duties, including participation to work shifts and on call duty services; Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.
Measures of effectiveness	Reports to the Coil Power Supply Section Leader; In response to requests from the Director-General (DG) 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. Maintains up to date the integrated system analyses to verify the overall performance for the ITER RPC&HF system; Identifies and clarifies the missing items and unresolved issues associated with installation and commissioning of the ITER RPC&HF system; Monitors efficiently, controls and pro-actively resolves issues associated with, installation, testing, commissioning,

	operation and maintenance of the ITER RPC&HF system, including interface with other ITER systems; Prepares high quality test communication procedures and writes reports following testing to a high standard on schedule; Performs efficiently testing in accordance with IEC Standards/French safety related standards. Maintains effective communication with all the interfacing teams of the ITER and the DAs.
Level of study	Master or equivalent degree
Diploma	Electrical Engineering or equivalent
Level of experience	At least 8 years
Technical experience/knowledge	Good knowledge of international electrical standards; Good knowledge of the design details and technical requirements of SVCs; At least 8 years' experience in managing design, installation, and commissioning power supply systems and writing supporting documentation; Good experience in installation and testing of large SVCs system and/or other relevant complex electrical systems such as High Power STATCOM Systems, High Power Thyristor Converters, or Multilevel Voltage Source Converters; Good experience in the execution of transient analyses of high power SVCs and Power Systems; First experience in monitoring/following up contracts for construction, installation and testing of large power electronic components/subsystems would be an advantage. 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.
General skills	Ability to dialogue with a wide variety of contributors and stakeholders; Ability to adjust communication content and style to deliver messages to work effectively in a multi-cultural environment; Ability to persist in the face of challenges to meet deadlines with high standards; Ability to gather multiple and diverse sources of information to understand problems accurately before moving to solutions; Ability to apply high standards of team mindset, trust, excellence, loyalty and integrity.
Others	Basic knowledge of running computer codes for transient and steady-state analysis of electrical system, including power converters, SVCs and power systems; Good knowledge of software applications for development of 3D model and 2D schematics.
Languages	English (Fluent)