

IO2147 Power Supply Technician PED-022

General information

Job category	Standard
Status	Published
Department	PED / Plant Engineering Department
Division	PED / Electrical Engineering Division
Section	PED / EED / Coil Power Supply Section

Job description

Main job	Engineering - Electricity
Title of the position	Power Supply Technician PED-022
Job family	Coordinating Technician
Grade	G5
Direct employment	Not required SAP Id: 50003777
Purpose	<p>To support the activities related to the engineering design, integration, interfaces, procurement, installation and commissioning of the ITER In-Vessel Coil (IVC) power supply system;</p> <p>To support the integration of the engineering design of the IVC power supply system with the ITER plant-level Instrumentation and Control (I&C) systems;</p> <p>To support the in-field engineering activities during the installation and commissioning of the IVC power supply system.</p> <p>Background</p> <p>The IVC power supply system consists of one VS3 power supply (to drive a VS3 coil) and 27 Edge Localized Modes (ELM) power supplies (to drive 27 separate ELM coils). The VS3 power supply will consist of a 22kV switchgear and stepdown transformer, a front-end rectifier, a large energy storage capacity bank, a 80kA/2.4kV switching-mode inverter operating in pulsed mode, high current mechanical safety switches, cooling systems, and electronics control systems.</p> <p>The ELM power supplies are likely to be split into several groups. Each group will consists of a 22kV switchgear and stepdown transformer, a front-end rectifier, a DC link capacity bank, and several separate switching-mode inverters at 15kA and a few hundred volts operating in continuous mode, high current mechanical safety switches, cooling systems, and electronics control systems.</p> <p>Please note that an organizational restructuring is planned in accordance with the needs of the organization and the evolution of the project phases. In this context, the unit of assignment of the present position may be updated in late 2019, early 2020.</p>
Main duties / Responsibilities	<p>Supports the conceptual design of the IVC power supply system;</p> <p>Contributes to the interface and integration management of the IVC power supply system with other systems, services and buildings;</p> <p>Supports the procurement of the IVC power supply which will include design reviews, documents and drawings review, manufacturing inspections etc.;</p> <p>Supports the preparation of the Engineering Work Package for the installation of the IVC power supply system;</p> <p>Supports the installation and commissioning of the IVC power supply system;</p> <p>Implements the Quality Assurance (QA) & Quality Control (QC) requirements and standards for components and systems, in close relation with the Quality Assurance & Assessment (QAA) Division;</p> <p>May be requested to be part of any of the project/construction teams and to perform other duties in support of the project;</p> <p>May be required to work outside ITER Organization reference working hours, including nights, weekends and public holidays.</p> <p>Supports effectively the design, procurement, construction and commissioning activities of the IVC power supply system to meet the defined quality, cost and schedule;</p>

Measures of effectiveness	<p>Maintains effective communication with the interfacing teams within ITER and with external contractors</p> <p>Ensures the proper management of the interface, integration, installation and commissioning of the IVC power supply system with other systems, services and buildings within the defined quality and schedule.</p>
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Applicant criteria

Level of study	Master or equivalent degree
Diploma	Electrical Engineering or other
Level of experience	<p>At least 5 years</p> <p>At least 5 years' experience in supporting design, installation and commissioning of power electronics systems within the field of electrical engineering.</p> <p>Master degree or equivalent in electrical engineering field or other relevant discipline; The required education degree may be substituted by extensive professional experience involving similar work responsibilities and/or additional training certificates in relevant domains.</p>
Technical experience/knowledge	<p>Contributing to the preparation of electrical design, with a good understanding of power electronics systems and systems engineering;</p> <p>Preparing review gates of electrical system design integration with other systems, services and buildings;</p> <p>Performing electrical analyses using software involving different disciplines;</p> <p>Working independently for installation and commissioning of electrical systems are preferable;</p> <p>Reviewing and understanding 3D modelling and 2D schematics is preferable.</p> <p>Collaborate: Ability to dialogue with a wide variety of contributors and stakeholders;</p> <p>Communicate Effectively: Ability to adjust communication content and style to deliver messages to work effectively in a multi-cultural environment;</p>
General skills	<p>Drive results: Ability to persist in the face of challenges to meet deadlines with high standards;</p> <p>Manage Complexity: Ability to gather and analyze multiple and diverse sources of information to define problems accurately before moving to proposals.</p> <p>Instill trust: Ability to apply high standards of team mindset, trust, excellence, loyalty and integrity.</p>
Languages	English (Fluent)