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Ref IO1708 - 5/25/2016

Power Conversion Technician PED 018

Main job	Electricity
Department	PED / Plant Engineering Department
Division	PED / Electrical Engineering Division
Section	PED / EED / Coil Power Supply Section
Job Family	Coordinating Officer
Application Deadline (MM/DD/YYYY)	06/26/2016
Grade	G5
Direct employment	Required

- Purpose To manage and contribute to the engineering activities for design, integration, manufacturing, testing installation, commissioning and start-up of the ITER Alternating Current / Direct Current (AC/DC) Coil Power Converter System;
 - To contribute to troubleshooting and development of technical solutions for issues that might come-up during manufacturing, installation, testing and commissioning of the ITER AC/DC power converters;
 - The key facts and figures of this system are:
 - 4-Quadrants Thyristor based converter with circulating current operation at the unit power of 80MVA;
 - Total installed power about 2GVA;
 - · Dynamic load characteristics and supply of the superconductive magnets
 - Is responsible for the electrical and layout integration of the AC/DC converter system of the ITER Coil Power Supplies, that are in the scope of the Procurement Arrangements (PAs) of Chinese and Korean Domestic Agencies (DAs);
 - Supports the Technical Responsible Officers (TRO) of the Procurement Arrangements on AC/DC power converter and Reactive Power Compensators, including the following-up of design, manufacturing and factory testing of the components;
 - Actively contributes to the coil power supply system integration and increase the maturity of the interface with other ITER systems;
 - Coordinates the Computer Aided Design (CAD) Office involved in the work related to AC/DC converter system, and follow up the work performed by the DA CAD teams;

Main duties / Responsibilities

- Monitors and follows up the installation, on site testing and commissioning of the AC/DC converters, following the specific rules for segregation, separation and Quality Assurance/Quality Control;
- Produces and manages 3 D models, electrical diagrams and 2D industrial drawings with CAD tools;
- Proposes and implements actions required to resolve design, manufacturing, installation, testing and commissioning issues for the ITER coil power supply
- Produces and updates procedures for the execution of factory and onsite acceptance tests, and integrated commissioning for the AC/DC converter systems;
- Works as power supply operating engineer for the preoperation of the Coil Power Supply System;

 May be required to work shifts during the ITER assembly
 and commissioning phases;
- Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan & upon management request; - May be requested to be part of any of the project team
- and perform other duties upon management request; - Maintains a strong commitment to the implementation
- and perpetuation of the ITER Safety Program, values and
- Reports to the Coil Power Supply Section Leader;
- Acts as an interface between all technical divisions, to

support excellent integration of the electrical installation, the DAs and contractors;

- In response to requests from the Director-General and/or Plant Engineering Department Head (PED), or proactively, informs the DG/ PED Department 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

Measures of effectiveness

- Finalizes the design, integration and installation of the AC/DC converter system;
- Finalizes procedures for testing and commissioning integration of the AC/DC converter system;
- Maintains effective communication with all the interfacing teams of the ITER and the DA;
- Provides the required input data and monitor the activities of the CAD design within the defined schedule;
- Performs the analysis on the AC/DC converter system to verify installation, test and commissioning;
- Performs the work on the installation of the components for AC/DC converter system.

Project construction phase SAP Id: 500002354

Level of study Bachelor or equivalent degree

Level of experience At least 7 years

Diploma Electrical Eng field or other relevant discipline

experience/knowledge

- **Technical** Knowledge of international electrical standards;
 - Knowledge of the electrical steady state and transient analysis
 - Knowledge of International Electrotechnical Commission standards for AC/DC conversion system.
 - At least 7 years' experience in design and installation of complex electrical AC/DC conversion systems;
 - Experience in the design, installation and operation of AC/DC conversion system for Tokamak and/or large superconductive magnets would be an advantage

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 interact with all stakeholders and in particular ASN authorities and the French Transmission System Operator.

- Others Good knowledge of Microsoft Office package tool;
 - Good knowledge of software applications for development of 3D model and 2D schematics;
 - Basic knowledge of running computer codes for transient and steady-state analysis of electrical system.

Languages English (Working)

For more information about ITER, visit our web site : http://www.iter.org