

IO1303 Electrical Engineer CEP-063

General information

Job category	Standard
Status	Published
Department	DIP/Directorate for Central Engineering & Plant
Division	CEP / Electrical Engineering Division
Section	CEP / EED / Coil Power Supply and Distribution Section

Job description

Main job	Engineering - Electricity
Title of the position	Electrical Engineer CEP-063
Job family	System Engineer - 1
Grade	P3
Direct employment	Not required
Purpose	<p>To manage the system engineering activities for design, procurement, installation and commissioning of 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, without step down transformers.</p>
Main duties / Responsibilities	<ul style="list-style-type: none">- Is the Technical Responsible Officer in charge of the components of the ITER Reactive Power Compensation and Harmonic Filtering (RPC&HF) System to ensure that components and subsystems will be designed, fabricated, shipped and installed in accordance with the requirements specified in the Procurement Arrangement with the Chinese Domestic Agency (DAs);- Follows up the procurement installation and commissioning liaising with the Section Leader;- Supports the development, optimization and supervision of the Reactive Power Compensation System schedule, including fabrication, installation, commissioning and operation;- Supports the resolution of the design and fabrication issues, proposing and implementing actions required to resolve design, construction and installation issues;- Develops the procedures for acceptance test and integrated commissioning for the component/system under the responsibility;- Enhances ITER reactive power compensator system integration and maturity of the interface with other ITER systems;- Supports the system integration among the ITER Reactive Power Compensation and Harmonic Filtering components, the Pulsed Power Electrical Network, and ITER Pulsed Power Load;- Carries out analyses of the system performance for the reactive power compensator system.- Coordinates the Reactive Power Compensator and Harmonics Filter system installation and pre-operation;- Supports the application of Quality Assurance (QA) & Quality Control requirements and standards for components and systems, in close relation with the QA Division;- Performs other duties in support of the project schedule as described in the Detailed Work Schedule and Strategic Management Plan;- Performs other duties linked to the above purpose upon management request, as necessary;- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.
Measures of effectiveness	<ul style="list-style-type: none">- Coordinates and supervises efforts of the ITER Organization and the DAs in respect to design, fabrication, installation and commissioning of the ITER RPC&HF System;

- Continuously updates integrated system analysis to verify the overall performance for the reactive power compensation, taking into account the design evaluation of the ITER coil power supply system;
- Maintains effective communication with all the interfacing teams of the ITER and the DAs.

Project Construction Phase. SAP Id : 50000241.

Applicant criteria

Level of study	Master or higher degree
Diploma	Electrical Eng. field or other relevant discipline
Level of experience	At least 5 years
Technical experience	<ul style="list-style-type: none"> - Experience in managing design, construction, installation and testing of SVCs system and/or other relevant complex electrical systems; - Basic experience in drafting/revising technical report/documentation and project plans; - Experience in monitoring/following up contracts for design, construction, installation and testing of large electrical components/subsystems would be an advantage; - Experience in the design and installation of complex electrical system for Tokamaks and/or large superconductive magnets would be an advantage.
Social skills	<ul style="list-style-type: none"> - Good knowledge of international electrical standards; - Good knowledge of the design details, technical requirements of SVCs; - Good knowledge of Power Electronics and the Electrical Circuit analysis. <p>Note: Training may be provided to complement technical mix-skills required.</p>
General skills	<p>Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit</p> <p>Project experience :</p> <ul style="list-style-type: none"> - Basic experience in monitoring/following up contracts for design, construction, installation and testing of large SVCs or other relevant large electrical components/subsystems; - Basic Project Management experience is required.
Languages	English (Working)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	<p>Computer and IT skills :</p> <ul style="list-style-type: none"> - Good 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.