

IO1220 Power Conversion Technician CEP-127

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 Section

Job description

Main job	Engineering - Electricity
Title of the position	Power Conversion Technician CEP-127
Job family	Experienced Technician - 2
Grade	G5
Direct employment	Required
Purpose	<p>-To lead and manage the engineering activities for design, integration, installation and pre-operation of the ITER Alternating Current / Direct Current (AC/DC) Coil Power Converter System.</p> <p>-To support the monitoring and follow up of the activities for the construction, installation and testing of the ITER AC/DC power converters and Reactive Power Compensators.</p> <p>The key facts and figures of this system are:</p> <ul style="list-style-type: none"> -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.
Main duties / Responsibilities	<ul style="list-style-type: none"> -Manages 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 the design, construction and testing of the components; -Performs the transient and steady state analysis of the converter circuits and Coil Power Supply integrated system to verify the design solutions and the integrated performances; -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; -Manages the installation of the components of the AC/DC converter system, following the specific rules for segregation, separation and Quality Assurance/Quality Control ; -Manages the preparation of procedures and the execution of acceptance tests and integrated commissioning for the AC/DC converter systems; -Manage the pre-operation of AC/DC converter system; -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. -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 Director of Central Engineering & Plant (CEP) Directorate, or proactively, informs the DG/ Director of CEP Directorate 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	<ul style="list-style-type: none"> -Finalizes the design and 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; -Performs the analysis on the AC/DC converter system to verify the performance; -Performs the work on the installation of the components for AC/DC converter system;

- Establishes the integrated test procedure for the AC/DC converter system.
- Project Construction Phase.

Applicant criteria

Level of study	Bachelor or higher degree
Diploma	Electrical Engineering field
Level of experience	At least 8 years
Technical experience	<ul style="list-style-type: none"> -Experience in design and installation of complex electrical AC/DC conversion systems; -Good knowledge of international electrical standards; -Good knowledge of the electrical circuit steady state and transient analysis; -Knowledge of International Electrotechnical Commission standards for AC/DC conversion system would be an advantage; -Experience in the design, installation and operation of AC/DC conversion system for Tokamaks 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
General skills	-Ability to interact with all stakeholders and in particular ASN (Autorité de Sureté Nucléaire) and the French Transmission System Operator.
Languages	English (Working)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)