

# IO1198 Electrical Engineer CEP-029

## General information

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

## Job description

Main job	Engineering - Electricity
Title of the position	Electrical Engineer CEP-029
Job family	System Engineer - 2
Grade	P4
Direct employment	Not required
Purpose	<p>To lead and manage the system engineering activities for design, procurement, installation and commissioning of the ITER Pulsed Power Electrical Network (PPEN) system and the High Voltage part of the Steady State Electrical Network (SSEN) system. The key facts and figures of these two systems are:</p> <ul style="list-style-type: none"><li>a 400 kV substation and a large 66 kV switchyard;</li><li>seven large step down transformers 400 kV/66kV/22kV with a total installed power of about 1.2 GVA;</li><li>Alternative Current power distribution systems at 66 kV, 22 kV, 6.6 kV and 400 V;</li><li>Emergency Power generators (total installed power about 18 MW), UPS (total installed power about 5 MW) and associated distribution system;</li><li>Site and building earthing systems.</li></ul>
Main duties / Responsibilities	<p>Is the Technical Responsible Officer (TROs) for the procurement, installation and commissioning of the ITER PPEN system and the SSEN sub-systems that are in the scope of the Procurement Arrangements (PAs) of Chinese, European and USA Domestic Agencies (DAs), including the system and layout integration aspects;</p> <p>Follows the design and fabrication activities carried out by the ITER DAs, including engineering companies and industries contracted by the DAs and Engineering Support Companies contracted by the ITER Organization;</p> <p>Monitors and follows up the activities for the construction, installation, commissioning and operation of the PPEN and SSEN systems, sub-subsystems and components, with emphasis to the 400 kV, 66 kV and 22 kV components;</p> <p>Is responsible for the execution of engineering analyses and cost estimations aimed to resolve technical and schedule issues and reduces costs;</p> <p>Is responsible for the technical interfaces between the ITER Organization and the French Transmission System Operator;</p> <p>Supports in the licensing activities and assessment of safety related functions in close contact to the Safety Quality &amp; Security Department;</p> <p>Witness factory and on site acceptance tests;</p> <p>Ensures the consistency of the procurement and construction planning, and the control of construction progress for both the PPEN and SSEN systems;</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work Breakdown Structure Schedule or Strategic Management Plan;</p> <p>Performs other duties linked to the above purpose upon management request, as necessary;</p> <p>Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.</p> <p>Reports to the Electrical Power Distribution Section Leader;</p> <p>Acts as an interface between all technical divisions, to support excellent integration of the electrical installation, the DAs and contractors.</p> <p>In response to requests from the Director-General and/or Director for Central Engineering &amp; Plant Directorate, or proactively, informs the DG/ Director for Central Engineering &amp; Plant 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.</p>

Measures of effectiveness	<p>Complete requested procurement and installation activities of the PPEN and SSEN systems in accordance with the defined schedule;</p> <p>Communicates efficiently with other sections and departments of the ITER Organization on EPD related issues;</p> <p>Coordinates and direct efforts of the ITER Organization and the Domestic Agencies in respect to design, fabrication, installation and commissioning of the ITER PPEN and SSEN systems.</p>
	Project Construction Phase

## Applicant criteria

Level of study	At least Master's Degree or equivalent
Diploma	Electrical engineering field
Level of experience	At least 10 years
Technical experience	<p>Experience in managing design, construction, installation and testing of electrical components and systems, comparable with those of the ITER PPEN and SSEN systems;</p> <p>Good knowledge of the design details, technical requirements and safety functions of electrical distribution systems, comparable with those of the ITER PPEN and SSEN systems;</p> <p>Good ability to draft/revise technical report/documentation and project plans;</p> <p>Good experience in the preparation of technical specifications for procurement contracts of large electrical components/subsystems.</p> <p>Knowledge of IEC61850 standard for electrical control system will be considered as an advantage.</p>
Project experience	<p>Good knowledge of international electrical standards and general design criteria for Nuclear Safety Relevant components.</p> <p>4 to 5 years</p>
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	Good experience in monitoring/following up contracts for design, construction, installation and testing of large electrical components/subsystems, comparable with those of the ITER PPEN and SSEN systems;
Languages	English (Working)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)
Free criteria	<p>Working knowledge in French will be considered as an advantage to manage technical interfaces and contracts with the French Transmission System Operator and the contractors responsible for installation, operation and maintenance of the Electrical Power Distribution Systems.</p> <p>Good knowledge of ETAP software application (<a href="http://www.etap.com">www.etap.com</a>) or equivalent applications for analysis of electrical circuits.</p>