

# IO1528 Electrical Engineer PSE-387

## General information

Job category	Standard
Status	Published
Department	DIP/Directorate for Plant System Engineering
Division	PSE / Electrical Engineering Division
Section	PSE/ EED/ Electrical Power Distribution Section

## Job description

Main job	Engineering - Electricity
Title of the position	Electrical Engineer PSE-387
Job family	Coordinating Engineer
Grade	P4
Direct employment	Not required
	<p>To manage engineering design activities, manufacturing, qualification, testing and operation in all matters related to the emergency power supply components and systems dedicated to the supply of investment protection and safety relevant electrical consumers;</p> <p>To manage the engineering activities for the onsite assembly and installation of the components for the following electrical systems:</p> <ul style="list-style-type: none"><li>- Steady State Electrical Network (SSEN) and Emergency Power Supplies;</li><li>- Pulsed Power Electrical Network (PPEN);</li><li>- Coil Power Supply System.</li></ul>
Purpose	<p>The key facts and figures of the above listed electrical systems are:</p> <ul style="list-style-type: none"><li>- Incoming power at 400 kV and main power distribution network at 66 kV and 22 kV.</li><li>- Seven large, 400 kV, high power step down transformers with total installed power of about 1.1 GVA.</li><li>- Pulsed power consumers composed by large AC/DC power converters supplied at 66 kV and 22 kV with total connected power of about 2 GVA.</li><li>- About 10 km of water cooled Aluminum busbars capable to carry up to 68 kA DA, continuous duty and isolated for a rated nominal voltage of 12 kV.</li><li>- Standard industrial electrical consumers fed at 6.6 kV and 400 V, with total connected power of about 180 MVA.</li><li>- Two Emergency Diesel Generators of about 4 MVA/each for the supply of investment protection and safety relevant electrical consumers.</li></ul>
Main duties / Responsibilities	<p>Is responsible for the design, procurement, qualification &amp; testing of emergency power supply components &amp; systems dedicated to the supply of investment protection &amp; safety relevant electrical consumers;</p> <p>Manages the procurement of cables for investment protection &amp; safety relevant components;</p> <p>Follows-up with the licensing process &amp; preparing of safety reports for the safety relevant emergency power supply components;</p> <p>Prepares the operating description documents of the safety relevant &amp; investment protection electrical distribution at ITER;</p> <p>Prepares &amp; updates sections of the Electrical Design Handbook that are dedicated to safety relevant electrical components &amp; system;</p> <p>Is responsible for the supervision of Domestic Agencies regarding the activities related to the installation of all the ITER electrical systems that a briefly summarized in the initial section of this job description;</p> <p>Performs the initial development &amp; future updating of installation sequence and schedules related to the installation of all ITER electrical systems;</p> <p>Prepares technical specifications &amp; managing contracts related to on site assembly &amp; the installation of all ITER electrical systems;</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work Schedule &amp; the 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 &amp; perpetuation of the ITER Safety Program,</p>

Measures of effectiveness	values & ethics.
	Reports to the Electrical Power Distribution Section Leader; Acts as an interface between all members of the Electrical Engineering Division & others systems to support the integration of the emergency power supplies;
	In response to requests from the Director-General and/or Director of Plant System Engineering (PSE) Directorate, or proactively, informs the DG/Director of PSE Directorate of any important & urgent issues that cannot be handled by the concerned line management & may jeopardize the achievement of the Project's objectives.
	Ensures the efficient execution of actions related to design, procurement and construction for his/her scope of activities, within the defined cost, scope and schedule; Controls the activities related to Electrical Design Handbook; Manages effectively the interfaces associated with his/her scope of activities.
Project Construction Phase ID SAP 50000326	

## Applicant criteria

Level of study	Master or equivalent degree
Diploma	Electrical Engineering
Level of experience	At least 10 years
Technical experience	At least 10 years' experience in design, construction, installation and testing of electrical components and systems comparable to those of the ITER SSEN, PPEN Emergency Power Supplies, or projects of similar complexity ( the key facts and figures are reported in the initial section of this job description). Project Management experience is required;
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit, Collaborative, Positive outlook
General skills	Good knowledge of the design details, technical requirements and nuclear safety functions of electrical distribution systems; Good knowledge of international electrical standards and general design criteria for safety relevant components; Good knowledge of Quality Assurance/Quality Control procedures for the design, installation, commissioning and operation of electrical components, including safety relevant components; Knowledge of safety automation architectures and facilities usually used in nuclear plants, would be considered an advantage; Knowledge of French electrical standards for electrical installations in Basic Nuclear Installation is considered an advantage.
Languages	English (Working)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	Computer and IT skills: Good knowledge of ETAP software application ( <a href="http://www.etap.com">www.etap.com</a> ) or equivalent tools for design of power distribution system would be considered an advantage.