

# IO1222 Electro Magnetic Compatibility Engineer CEP-129

## 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	Electro Magnetic Compatibility Engineer CEP-129
Job family	System Engineer - 1
Grade	P3
Direct employment	Not required
Purpose	<p>To manage and lead the design and system integration activities for the identification and implementation of Electro Magnetic Compatibility (EMC) guidelines, rules and design solutions required for the ITER facility.</p> <p>To manage design and system integration issues related to electrical earthing and insulating requirements.</p> <p>To manage and follow-up the implementation of the ITER EMC policy to the engineering design, procurement and installation activities of components and systems that are required to comply with this policy.</p> <p>The key facts and figures of the EMC system integration activities are:</p> <ul style="list-style-type: none"><li>a 400 kV substation and a large 66 kV switchyard;</li><li>components and systems with rated voltage up to 1MV DC, 70 kA DC characterized by very fast transients;</li><li>high power (several MW) radio frequency power generators for plasma heating;</li><li>very sensitive diagnostics characterized by small signals (mV, mA, <math>\mu</math>W) located near the high power components.</li></ul>
Main duties / Responsibilities	<p>Is the Technical Responsible Officer (TRO) for electrical engineering supporting analyses and implementation of technical solutions to resolve design and integration issues about earthing, lightning protection, EMC and insulating requirements, primarily relating to the interfaces and integration with buildings;</p> <p>Leads the implementation of the EMC and earthing policy within the different systems;</p> <p>Manages the overall consistency of earthing and cabling design among the systems in order to ensure a good ratio between immunity and disturbance levels;</p> <p>Defines the rules and guidelines for the management, design integration and monitoring of the insulation requirements, EMC, earthing and lightning protection systems;</p> <p>Produces technical specifications and participates in the procurement contract tender process for external engineering support, and the purchase and installation of cables and components for the Tokamak earthing system;</p> <p>Supervises the lightning protection system installation in all buildings. Ensures the level of protection is reached according to the safety recommendations;</p> <p>Supervises the plant systems and diagnostics installation in the field of earthing and cabling;</p> <p>Supervises the documentation provided by the suppliers related to emission and immunity levels;</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work Schedule and 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 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 (DG) and/or Director of Central Engineering &amp; Plant (CEP) Directorate, or proactively, informs the DG/ Director of CEP Directorate of any</p>

Measures of effectiveness	important and urgent issues that cannot be handled by the concerned line management and may jeopardize the achievement of the Project's objectives.
	Completes requested procurement and installation activities of the Electrical Power Distribution in accordance with the defined schedule;
	Communicates efficiently with other sections and departments of the ITER Organization on Electrical Power Distribution related issues;
	Coordinates and direct efforts of the ITER Organization and the Domestic Agencies in respect to design, fabrication, installation and commissioning of the ITER Electrical Power Distribution.
Project Construction Phase	

Applicant criteria

Level of study	At least Master's Degree or equivalent
Diploma	In the Electrical Engineering field or equivalent
Level of experience	At least 8 years
Technical experience	Experience with at least 5 years of relevant experience in earthing, lightning protection, EMC and cabling for components and systems comparable with those of the ITER plant; Basic 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
Languages	English (Working)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)