

## Senior Electrical Engineer

CEP-087

<b>Reports to Line Manager:</b>	Steady State Electrical Power Network Section Leader, Electrical Engineering Division, Central Engineering and Plant Support Department	<b>Job Code:</b>	CEP-087
<b>Direct Employment:</b>	Not Required	<b>Grade:</b>	P4

### Purpose

To manage and supervise the design integration and procurement activities for the:

- 1) Management of all power and Interface and Control (I&C) cables that will be installed in the ITER plant, including: design and routing of cable trays, production of cable management handbooks, diagrams, naming/identification rules, cable scheduling, routing, procurement, and installation;
- 2) ITER earthing and lightning protection systems, including the specific earthing and insulation requirements of the Tokamak components;

To provide engineering support to the Steady State Electrical Power Network Section in the design integration and sub-systems for the distribution of Electrical Power to the consumers of the ITER plant systems.

### Major Duties/Responsibilities

- Manages the design, routing and procurement of cable trays;
- Is responsible for the design and procurement of the system for the earthing of the Tokamak components;
- Defines the rules and guidelines for the management, integration and procurement of power and I&C cables;
- Defines the rules and guidelines for management, design integration and monitoring of insulation requirements, EMC, earthing and lighting protection systems.
- Specifies the technical requirements of Computer Aided Design (CAD) and software tools required for the management of cable routing and earthing systems;
- 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;
- Manages the work performed by external companies contracted by the ITER Organization;
- Participates in the supervision and coordination of activities related to the design, procurement and installation of cables and components for the Tokamak earthing system that are under the responsibility of the ITER Domestic Agencies.
- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.

## Qualifications and Experience

---

- **Education:**
  - Degree at least equivalent to 4-6 years of study after the High School Diploma (ex. Bachelor's/Master's), in Electrical Engineering or other relevant discipline;
  - A Masters degree in Electrical Installations, Project Management, or equivalent would be considered an advantage.
- **Technical & Project experience:**
  - At least 10 years' experience in the design, procurement and installations of components for electrical power distribution in large science and/or industrial plants comparable with the ITER power distribution systems;
  - At least 3 years' experience in cable management for large electrical installations comparable with those of ITER;
  - Basic Project Management experience is required;
  - Good knowledge of the EMC directives would be considered an advantage;
  - Experience in the preparation of technical specifications and/or using cable diagram/scheduling tools would be considered an advantage;
  - Experienced in the preparation of technical specifications for database tools would be considered an advantage.
- **Social Skills:**
  - Ability to work effectively in a multi-cultural environment;
  - Ability to work in a team and to promote team work;
  - Collaborative and positive personality.
- **Language requirements:**
  - Very good command of English, both spoken and written.

## Direct Supervisor and Interfaces

---

- Reports to the Steady State Electrical Power Network Section Leader;
- Interfaces with all members of the Electrical Engineering Division to support the excellent integration of the electrical installations.

## Authority / Approval Levels

---

This position has authority and approval levels generally defined by the Steady State Electrical Power Network Section Leader for his/her scope of work.

## Measures of Effectiveness

---

- Successfully supports the design and construction activities of the Electrical Engineering Division;
- Successfully manages the activities related to the management, routing, procurement and installation of power and I&C cables;
- Successfully manages the activities related to the design integration and procurement of earthing and lightning protection systems, including those for the earthing and insulation requirements of the Tokamak components;
- Successfully manages interfaces with other ITER Departments/Division and Domestic Agencies;
- Successfully supports the work of the ITER Organization and the Domestic Agencies;
- Successfully maintains effective communication with all parties delivering subsystems.