



## Electron Cyclotron Integration Engineer

**CHD-072**

<b>Reports to Line Manager:</b>	EC and H&CD Section Leader, Heating & Current Drive Division, Department for CODAC & IT, Heating & CD, Diagnostics	<b>Job Code:</b>	CHD-072
<b>Direct Employment:</b>	Not Required	<b>Grade:</b>	P4

### Purpose

The Electron Cyclotron (EC) system is designed to inject 20 MW of power into the plasma and will comprise several sub-systems for the transmission of microwave power from the sources to the plasma.

This EC Integration Engineer will be responsible of the EC machine interface. This responsibility consists of the management of the design, procurement and documentation of the EC system in the aspects related to the interfaces with the machine, in particular the Transmission Lines, the windows, and the safety aspects. The successful candidate will manage resources in the Domestic Agency (DA) in charge of procurement to ensure compliance and to prepare the parts integration, as part of the contract management.

china

eu

india

japan

korea

russia

usa

### Major Duties/Responsibilities

- Ensures the development, specification, procurement and installation of the EC Heating & Current Drive (H&CD) parts;
- Develops some of the interfaces of the EC H&CD subsystems, those between the matching system and the launchers with the ITER buildings (Assembly hall and Tokamak complex);
- Identifies and provides needed services to the EC subsystems (e.g. electrical power, compressed air and cooling);
- Participates in the development of an optimum EC components layout and in the port cell equipment integration;
- Contributes in the conception of an EC subsystems installation plan;
- Assists in the preparation of the EC systems installation into the port cells;
- Shows strong commitment to the ITER Safety Program and enforces it through individual behavior and in his/her organization;
- Maintains a strong commitment to the implementation and perpetuation of ITER values and ethics.

### Qualifications and Experience

- **Education:**
  - Degree at least equivalent to 8 years of study (e.g. PhD) after the High School Diploma in a relevant area;

- **Technical experience:**
  - At least 10 years' experience (of which at least 5 at the international level) in the implementation of high frequency or complex systems, power electrical systems, project planning techniques, control systems, procurement, project engineering and Quality Assurance is required;
  - Familiarity with some aspects of mechanical and/or electrical engineering design for Tokamak systems would be an advantage (e.g. transmission line routing, high power antennas, vacuum systems, microwave and cabled electrical transmission, water cooling systems and mechanical handling schemes);
- **Project experience:**
  - Experience working on a project of similar technical complexity to that of the ITER EC H&CD system;
  - Knowledge of project management tools.
- **Social Skills:**
  - Ability to work effectively in a multi-cultural environment;
  - Ability to work in a team and to promote team work.
- **Language requirements:**
  - Fluent in English (written and spoken).

## **Direct Supervisor and Interfaces**

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- Reports to the EC Heating & Current Drive Section Leader.

## **Authority / Approval Levels**

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This position has authority and approval levels defined by the Heating & Current Drive Division Head for the scope of work.

## **Measures of Effectiveness**

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- Successfully develops the specification, procurement and installation of ITER EC system allocated parts;
- Successfully develops some of the EC system interfaces;
- Successfully identifies and requires needed services to the EC systems (e.g. electrical power, compressed air and cooling);
- Successfully supports the EC project needs.