Job Title: Electron Cyclotron Section Leader IO0097

Req ID **3301** - Posted **18/11/2020** - (France, 13067 St Paul Lez Durance Cedex) - **Engineering of Systems** - **New Posting**

The ITER Organization brings together people from all over the world to be part of a thrilling human adventure in southern France—building the ITER Tokamak. We require the best people in every domain.

We offer challenging full-time assignments in a wide range of areas and encourage applications from candidates with all levels of experience, from recent graduates to experienced professionals. Applications from under-represented ITER Members and from female candidates are strongly encouraged as the ITER Organization supports diversity and gender equality in the workplace.

Our working environment is truly multi-cultural, with 29 different nationalities represented among staff. The ITER Organization Code of Conduct gives guidance in matters of professional ethics to all staff and serves as a reference for the public with regards to the standards of conduct that third parties are entitled to expect when dealing with the ITER Organization.

The south of France is blessed with a very privileged living environment and a mild and sunny climate. The ITER Project is based in Saint Paul-lez-Durance, located between the southern Alps and the Mediterranean Sea—an area offering every conceivable sporting, leisure, and cultural opportunity.

To see why ITER is a great place to work, please look at this video

Application deadline: 10/12/2020
Domain: Engineering
Department: Engineering Design
Division: Heating & Current Drive
Section: Electron Cyclotron
Job Family: Line Management
Job Role: Section Leader
Job Grade: P5
Language requirements: Fluent in English (written & spoken)
Contract duration: Up to 5 years

Purpose

As the Electron Cyclotron Section Leader, you will lead the Electron Cyclotron (EC) Section and be responsible for all activities leading to the completion of the procurement of the EC heating and current drive systems, their successful installation, commissioning and operation.
You will ensure that Research & Development (R&D) necessary for the successful realization of the ITER EC system is completed, and prepare the relevant contracts, interface documentation, procurement documentation, commissioning and operational plans.
You will be responsible for the overall planning, schedule, budget and technical control of the EC systems, in addition to preparing the EC team for the operational phases.

Background

The Heating and Current Drive systems in ITER are comprised of the Neutral Beam system for heating (HNB) and diagnostics (DNB), Ion cyclotron for heating & current drive (ICH & CD) and the Electron Cyclotron for heating and current drive (ECH & CD)
The ECH system is required to provide a 24 MW (EC) system operating at 170 GHz and 3600 s pulse length of which delivery to the ITER plasma will be 20 MW. The ECH system is designed for plasma initiation, central heating, current drive, current profile tailoring and MHD control in the flattop phase of the plasma. The ECH system is also a First Plasma system, where approx. 8MW of power needs to be installed to accommodate plasma breakdown.

Major Duties/Roles & Responsibilities

- Supervises and directs the EC section's activities; providing leadership for the section members to complete the design, procurement, installation, commissioning and operation of the ITER system in line with the safety and quality requirements of ITER and to execute the ITER research plan;
- Defines and places the EC system interfaces under change management;
- Ensures the successful integration of the ECH system within the tokamak environment, assuring compliance with the Project Requirements, and working with the different task forces managing the transverse activities;
- Ensures the delivery of eight 1 MW units of installed ECH power for FP and 24 1 MW units of installed ECH power for PFPO-1;
- Manages the installation, commissioning and operation of the EC system, including the documentation required for the system, in line with the project schedule;
- Manages the development and upgrade of EC system, if decided upon by the Senior Management based on project needs;
- Coordinates the design and procurement activities carried out for the ITER EC systems both in the ITER Organization (IO) and in the primary procuring Domestic Agencies (DAs);
- Keeps abreast of worldwide developments in EC-relevant technology;
- Executes and delivers, according to the master schedule, the required scope;
- Manages the budget execution associated with the system;
- May be requested to be part of any of the project/construction teams and to perform other duties in support of the project;
- May be required to work outside ITER Organization reference working hours, including nights, week-ends and public holidays.

Measure of Effectiveness

- Ensures that the EC systems design and implementation progresses within the defined cost and schedule meeting the project requirements;
- Responsible for Section deliverables that meet safety standards, quality schedule and cost requirements;
- Implements safety nuclear regulations and other safety standards of the section's work;
- Responsible for adherence to technical standards;
- Assures that the IO's goals are achieved in a timely and effective manner, which meets safety, quality, cost and schedule targets;
- Thoroughly and accurately tracks work progress by coordinating/planning/monitoring activities;
- Optimizes the budget by actively driving cost optimization;
- Actively drives through others process improvement and increases productivity to achieve project milestones;
- Effectively manages direct reports and ensures their constant development;
- Establishes a collaborative environment and builds strong relationships with internal & external stakeholders.

Experience & Profile

- ***Professional Experience:***
  - At least 10 years' experience in the design and implementation of high power Radio Frequency or microwave systems, and/or managing technically complex components in a large international project.
- ***Education:***
  - Master's degree or equivalent in Physics or Engineering or other relevant discipline;
  - The required education degree may be substituted by extensive professional experience involving similar work responsibilities and/or additional training certificates in relevant domains.
- ***Language requirements:***
  - Fluent in English (written and spoken).
- ***Technical /Managerial Competencies and Demonstrated Experience in:***

- Design & Technical Expertise for challenging components, and in particular all subsystems of an ECRH plant (power supplies, Gyrotrons, transmission line and launchers) including a comprehensive knowledge of ECRH;
- Team management, providing leadership, motivating and ensuring development of competencies for multicultural team;
- Project Management: Ability to define reporting and control requirements and methodology, analyze and conclude on overall project status, define and decide actions for recovery with full transparency, and report to highest levels of stakeholders of the ITER Project;
- Anticipating complex and challenging technical issues or problems, drawing on experience and expertise.

- ***Behavioral Competencies:***
  - Collaborate: Ability to facilitate dialogue with a wide variety of contributors and stakeholders;
  - Communicate Effectively: Ability to adjust communication content and style to deliver messages to work effectively in a multi-cultural environment;
  - Drive results: Ability to persist in the face of challenges to meet deadlines with high standards;
  - Manage Complexity: Ability to analyze multiple and diverse sources of information to understand problems accurately before moving to proposals;
  - Instill trust: Ability to apply high standards of team mindset, trust, excellence, loyalty and integrity.

The following important information shall apply to all jobs at ITER Organization:

- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, ITER Values (Trust; Loyalty; Integrity; Excellence; Team mind set; Diversity and Inclusiveness) and Code of Conduct;
- ITER Core technical competencies of 1) Nuclear Safety, environment, **r**adioprotection and pressured equipment 2) Occupational Health, safety & security 3) Quality assurance processes. Knowledge of these competencies may be acquired through on-board training at basic understanding level for all ITER staff members;
- Implements the technical control of the Protection Important Activities, as well as their propagation to the entire supply chain;
- May be requested to work on beryllium-containing components. In this case, you will be required to follow the established ITER Beryllium Management Program for working safely with beryllium. Training and support will be provided by the ITER Organization;
- May be requested to be part of any of the project/construction teams and to perform other duties in support of the project;
- Informs the IO Director-General, Domain Head, or Department/Office Head of any important and urgent issues that cannot be handled by lline management and that may jeopardize the achievement of the Project’s objectives.