

Job Title: Instrumentation & Control Engineer IO1146

Requisition ID **7560** - Posted - (France, 13067 St Paul Lez Durance Cedex) - **Engineering of Systems - New Posting**

Fusion, the nuclear reaction that powers the sun and the stars, is a promising long-term option for a sustainable, non-carbon emitting global energy supply.

The ITER Organization (IO), based in the southern France, welcomes best talents who can together prepare the way to this new energy in a truly multi-cultural work environment.

We offer challenging assignments in a wide range of areas and encourage applications from candidates with all levels of experience. Applications from under-represented ITER Members' nations and women candidates are strongly encouraged, as IO strongly believes that a diversified, equitable, and inclusive workplace is crucial in solving one of the most complex scientific and engineering projects in the world today.

As the IO attracts and retains people coming from a vast array of different backgrounds and cultures, discrimination and exclusion cannot be tolerated. The IO believes it is our diverse perspectives and background that gives unique strength and value to the ITER mission, regardless of race, member nation, gender, religion, status, sexual orientation, or disability - all are welcome and respected at ITER.

ITER CARE Values (Collaboration / Accountability / Respect / Excellence):

We perform our work with care, we care for the well-being of colleagues, our families and ourselves, and we care about the health of the planet for generations to come. CARE drives our work and our behaviors at ITER.

To see why ITER is a great place to work, please look at this [video](#)

Application Deadline: 13/10/2024

Department: ITER Construction Project

Division / Program: Plant Systems Program

Section / Project: Cooling Water System Project

Group: Not applicable

Job Family: Engineering

Job Role: Engineer – 2

Job Grade: P2

Language Requirements: Fluent in English (written & spoken)

Contract Duration: Initial Employment Contract up to five years with possibility for extension

Overview

Do you have an interest in construction design, qualification, procurement, manufacturing and testing of Cooling Water Systems (CWS), Instrumentation & Control systems (I&C), and software?

Join our Cooling Water System Project (CWS) focused on the oversight of the design, procurement and installation of the complete cooling water system for the Tokamak Machine. This work is done partly in-house at the ITER Organization and in collaboration with the Domestic Agency of the United States of America.

As an Instrumentation & Control Engineer, your goals include:

Issuing all documentation needed for the construction, installation, and commissioning of the CWS defined systems;

Monitoring the procurement process and providing technical support colleagues in the Procurement and Contracts Division during calls for tenders.

Success in this role includes:

- Ensuring the CWS I&C systems meet all applicable requirements, including nuclear safety requirements, within the defined budget and schedule;
- Ensuring the CWS I&C construction design and manufacturing is aligned with construction needs.

Key Duties, Scope, and Level of Accountability

- **Primary Responsibilities:**

- Performs the construction design and manufacturing of the CWS I&C systems, including all instrumentation (temperature, pressure, flow, humidity, etc.), solenoids, I&C cubicles, and cabinets;
- Generates Engineering Work Package(s) (EWP) and follows-up after endorsement, including the coordination of the in-field changes and Non-Conformance Reports (NCR) and Deviation Request (DR) implementation;
- Develops and qualifies CWS software, including the delivery and installation (including Engineering Work Packages) of TCWS I&C systems;
- Coordinates the CWS resources assigned to CWS I&C systems;
- Monitors CWS I&C interfaces and manages the handover of the TCWS I&C systems and software to Operation.

- **Additional Responsibilities:**

- Contributes to the development of the global functional analysis, architecture and process control for CWS within the defined scope of work;
- Supports Procurement stakeholders with information and technical input for the call for tenders, monitoring Procurement Arrangements and providing information as required to procurement progress to the US DA
- Monitors requirements and interfaces are implemented in the design and construction of the CWS Electrical and I&C systems, in close collaboration with IO stakeholders and US Domestic Agency (DA);

Experience & Profile

- ***Demonstrated experience and technical competencies in:***

- **Minimum** 5 years' experience in design, procurement, and installation of I&C systems in construction or complex project environments;
- **Essential competencies and experience** required for success in the role:
 - Instrumentation & Control System Software Engineering: design, engineering, manufacturing, testing, commissioning or operation of I&C systems;
 - Assembly & Installation: arrangement, assembling, alignment and positioning of manufactured components and systems at designated locations;
 - Procurement & Contract Management: acquiring goods, services, or works from external sources in a cost-effective and efficient manner, including negotiating contracts, monitoring their execution in line with the rules and regulations in place, and ensuring adherence to contractual terms and conditions;
 - Stakeholder Management: identifying, soliciting, and sustaining effective relationships with individuals and organizations that are involved in, exert influence over, or whose interests may be positively or negatively affected by a project or activity.
- **Advantageous competencies and experience:**
 - Technical Specifications Definition: preparing, finalizing, management and follow up of technical specifications for Tenders;
 - Resourcefulness: securing and deploying resources effectively and efficiently to move work forward, and / or solve problems;
 - Experience in the nuclear field for a large and complex cooling water system
- **Education:**
 - **Essential:** Masters' degree or equivalent in Electrical or Instrumentation Engineering or other relevant discipline;
 - *The required education degree(s) 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).

The following items apply to all jobs and job holders for the duration of tenure at ITER Organization:

- **The CARE Values are a framework of principles that guide our actions and define the culture and spirit of the ITER Project:**

Collaboration: We collaborate with commitment and flexibility using the power of teamwork, building partnerships, and working with others to reach shared objectives;

Accountability: We are accountable for the whole project - we take responsibility for our specific actions and are transparent in our daily work, holding self (ourselves) and others accountable to meet commitments;

Respect: We treat each other with respect and dignity at all times, knowing that all of us belong here. We appreciate the value that our multicultural and diverse community brings to the ITER Project;

Excellence: We are driven by excellence; we are agile and innovative while maintaining the highest standards of safety, quality and integrity;

- **ITER Core Technical Competencies:**

1) **Nuclear Safety, Environment, Radioprotection and Pressured Equipment**

2) **Occupational Health, Safety & Security**

3) **Quality Control & 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 perform other duties in support of the project as defined by your line manager, and when relevant upon the request of the matrix manager;
- May be requested to work outside the ITER Organization reference working hours, including nights, weekends and public holidays, due to business needs - this may include on-call, shift work, etc.
- May be requested to be part of any of the project/construction teams and to perform other duties in support of the project;
- For staff expected to perform on-call, shift hours, or other work outside ITER Organization reference working hours, including nights, weekends, and public holidays, **the possession of a driving license valid in France is required. no commuting vehicle will be provided by the ITER Organization.**
- Informs management of any important and urgent issues that cannot be handled by line or matrix management and that may jeopardize the achievement of the Project's objectives;

The ITER Organization (IO) is an Equal Opportunity organization committed to diversity and inclusive in the workplace.