Job Title: Cooling Water Electrical / I&C Engineer IO1075 & IO0223

Requisition ID **5781** - Posted - (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: 10/04/2022
Domain: Construction
Department: Plant Construction
Division: Mechanical Implementation
Section: Cooling Mechanical & Welding
Job Family: Engineering
Job Role: Engineer – 3
Job Grade: P3
Language requirements: Fluent in English (written & spoken)
Contract duration: 5 years
Two openings:
One position will focus specifically on the Cooling Water System (CWS) electrical equipment and systems, whilst the other will perform these activities for the CWS Instrumentation & Control systems.

Purpose

In this role as an Electrical/I & C Engineer, you will oversee functional and physical interfaces of the CWS.
You will take the lead in the design, procurement, qualification, in addition to the installation and commissioning of relevant systems. Throughout your activities you will provide high quality solutions to change requests/non-conformities.

Background

The Cooling, Mechanical and Welding Section (CMW) is responsible for the design and procurement for the secondary and tertiary systems of the Cooling Water Systems (CWS). This role contributes to the completion of these activities through collaboration with engineers, analysts, and designers across the ITER Organization (IO) to ensure the design and manufacturing is finalized according to quality, engineering, and industrial standards.

Key Duties, Scope and Level of Accountability

- Issues and finalizes the Electrical or I&C documentation (e.g. Equipment GA drawings, SLDs, Wiring Diagrams, Cable schedules, Cabling Diagrams, Cable termination reports, P&IDs and associated control logic, Cubicle diagrams, Technical specifications and datasheets);
- Collaborates to the definition and design of the conventional and Safety functions for either the CWS electrical systems or CWS I&C;
- Executes the CWS Electrical or I&C equipment qualification (nuclear and magnetic);
- Prepares and follows up the Project Change Requests (PCRs), and modifies the baseline according to the future operative scenario of various CWSs;
- Finalizes all the functional and physical interfaces with the clients and facilities (e.g. central control system, electrical supply, compressed air etc.), according to their design evolutions and the step approaches for the design, procurement and installation in various buildings like Tritium Building and Hot Cell Complex for the Electrical or I&C design evolution;
- Follows the procurement and launches the relevant documents for the procurement (e.g. Electrical-I&C list and Bill of Materials-BoMs) for the Electrical or I&C equipment like electrical panels (e.g. MCC, distribution board), heat tracing system, control cubicles, process instruments (i.e. RTD, flow transmitters, pressure transmitters etc.);
- Supports the commissioning activities of the CWSs for the CWS Electrical or I&C Equipment/systems;
- Drives and prepares Engineering Work Packages (EWPs) for the CWS, namely for the Electrical and I&C discipline;
- 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

- Commits to deliver the project requirements to a high standard, and in line with cost/schedule requirements;
- Issues, reviews and maintains accurate Electrical or I&C documentation in a timely manner.
- Finalizes functional and physical interfaces with the clients and facilities in line with the schedule and as per requirements;
- Performs accurate functional analysis of the P&IDs of CWSs.
- Effectively supports the preparation of the Electrical or I&C EWPs.
- Provides suitable and efficient support for the procurement process;
- Efficiently prepares guidance for the Electrical or I&C commission tests
- Collaborates successfully with technical partners in Domestic Agencies and other units within IO.

Experience & Profile

- ***Professional Experience:***
  - Minimum 8 years' experience in Electrical or I&C plant engineering for large plant systems, in the field of nuclear installations within complex international environments or projects.
- ***Education:***
  - Master degree or equivalent in Electrical, Electronics, Instrumentation, Process 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 competencies and demonstrated experience in:***
  - Specialized Domains of Expertise (I&C or Electrical engineering): Design, analysis, procurement and testing of Electrical equipment and/or instruments for Cooling Water

Systems or large plant systems;
    - Electro/pneumatic control of valves crucial for the CWS general I&C scope;
    - Problem Solving: assesses problems related to functional and physical interfaces of Electrical and I&C installations and namely for SIC components, identifies root causes and reaches practical solutions in a consistent way to reach project objectives;
    - Assembly/installation of Electrical or I&C components and devices;
    - Using 2D and 3D CAD (e.g. AVEVA, CATIA etc.),PLC (e.g. Siemens S7) and relative signal modules is considered an advantage;
    - Reviewing or preparing execution detailed design documentation: reports, technical assessments, engineering documents and BoMs;
    - Preparing work engineering packages, contract technical specifications and following up on procurement would be an asset.
- ***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/define 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, radioprotection 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 line management and that may jeopardize the achievement of the Project’s objectives.