Job Title: Electrical Responsible Officer IO1078

Requisition ID **5960** - 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: 08/05/2022
Domain: Construction
Department: Plant Construction
Division: Electrical Implementation
Section: I&C Infrastructure
Job Family: Construction
Job Role: Coordinating Engineer
Job Grade: P4
Language requirements: Fluent in English (written & spoken)
Contract duration: Up to 5 years

Purpose

As an Electrical Engineer, you will drive the work packages related to cable trays, cables and electrical boards. Procurement management will be an important activity, in addition to supervising the activities of the team members and external contractors, within the approved budget and schedule. You will ensure the cable routing for the electrical, instrumentation & control and fiber optics cables of the Plant Systems and to issue the corresponding Engineering Work Packages (EWP) on the time for the cable procurement, pulling and termination.

Background

ITER Instrumentation and Control Infrastructure Section (ICIS) inside the Electrical Implementation Division (EID) is responsible for the design of the cable tray System network, cable routing and electrical power distribution system. It is also responsible of creating and releasing of the corresponding Engineering Work Packages for the construction of ITER plant systems inside the Tokamak Building and non-nuclear or associated buildings.
The current position is related to the design of cable tray network and the cable routing for all cable types for all Plant Systems in ITER. The design process includes: Collection of Electrical Loads from the consumers, production of Single Line Diagrams and electrical Cabling Diagrams, electrical calculations (cable sizing, breaker rating, etc), modelling the cable trays and conduits in 3D using specified software, and cable routing with automatic tools. The design activities requires close co-ordination with the design

office in terms of development of the proper component catalogues and many utilities to provide correct parameters. Also, it's required a close co-ordination with the electrical engineers of Plant Systems.

Key Duties, Scope, and Level of Accountability

- Manages cable tray detailed design and cable routing for ITER, including supervising team members and contracts to produce relevant designs on time;
- Implements the guidelines and rules established by the Electrical Implementation Division for routing and installation of power, instrumentation and control cables, in addition to nuclear safety requirements as necessary;
- Supports the section leader in the management of budget, resource allocation, contract strategy, schedule and planning and may substitutes the Section Leader upon request;
- Supervises the work between CAD and engineering inputs and works with relevant stakeholders to: Take the documentation of the Cable database and existing cable tray network as input, and prepare the updates on existing cable tray network and perform the cable routing; Perform quality checks; Review the CAD deliverables resulting (including drawings).
- Supervises equipment manufacturing documentation and prepares cable termination data;
- Reviews the Plant Systems Single Line Diagrams and Cabling Diagrams and propose updates on the layout and/or architecture to optimize the cable routing;
- Coordinates the manufacturing documentation for cable trays and supports;
- Writes and/or reviews technical specifications to prepare the call for tenders of the section, and follows-up the contract execution (schedule and budget);
- Coordinates technical work instructions for the production of EWPs and ensures their propagation to all stake holders;
- Resolves and provides technical expertise in engineering related issues that may arise during the execution of the work, mainly related with electrical systems;
- Produces progress reports, outlining problems areas and proposing corrective measures to the Senior Management;
- Monitors change management during construction and provides support to the mechanical engineering teams to resolve the construction issues, including Request for Information (RFI) from the contractors;
- Develops the engineering designs of systems, based on the process and relevant inputs,
- 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 shifts, nights, weekends and public holidays.

Measure of Effectiveness

- Efficiently implements actions to move forward the project specifically related to industrial quality engineering drawings for the release of engineering work packages;
- Fixes efficiently technical issues related to engineering drawings;
- Guarantees consistency in the engineering design ensuring an efficient communication and integration with the ITER construction engineers during the construction phase and future operation phase;
- Alerts line management promptly on possible risk areas with appropriate preventive and corrective action plan(s);
- Proactively follows and actions on multi-CAD activities, so that all the catalogues have been developed before the start of the 3D design work;
- Ensures that lessons learned and engineering solutions are well propagated within the team and implemented to mitigate future issues;
- Ensures compliance and traceability and records of all relevant documents as per nuclear safety requirements and quality standards.

Experience & Profile

- ***Professional Experience:***
  - Minimum 10 years' experience in supervising or managing electrical engineering design of large installations, within complex international environments or nuclear projects.
- ***Education:***
  - Master's degree or equivalent in Electrical Engineering or equivalent
  - 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 work and technical expertise: Cable Engineering Design: creating technical designs for cable engineering (cable diagram production, cable routing, cable tray design) based on project requirements:
  - Construction Oversight: Supervision of cable pulling or cable tray installation; leading design reviews; using cable routing tools (eg KCMS, Pericles);
  - Integrated Management of Construction and Engineering: Managing plant installation strategies and engineering solutions within a reasonable time and at a reasonable cost
  - Interface Management (identifying, resolving and maintaining technical and functional interfaces):
  - Construction, project and contract management: Large procurement of distribution boards, cable, connectors or cable trays; Planning, measuring of project work, managing risks/costs and reporting on progress using SMARTPLANT and MS Project;
  - Quality Control: Verifying the compliance of the procedures for the installation of mechanical components and piping systems with all applicable requirements;
  - Problem Solving: assesses problems, identifies root causes and reaches practical solutions in a consistent way to reach project objectives.
- ***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, 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.