

Job Title: Nuclear Systems Coordinating Engineer IO1055

Requisition ID **6420** - 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: 10/07/2022

Domain: Engineering Domain

Department: Engineering Design Department

Division: Internal Components Division

Section: Tritium Breeding Blanket Systems Section

Group: Not applicable

Job Family: Engineering

Job Role: Coordinating Engineer

Job Grade: P4

Language requirements: Fluent in English (written & spoken)

Contract duration: Up to 5 years

Purpose

As a Nuclear Systems Coordinating Engineer, you will be responsible for monitoring all aspects of the design, testing and manufacturing activities for the (tritium breeding) Test Blanket Module (TBM) systems associated with the Equatorial Port (EQP) #18. You will also manage and coordinate the two corresponding TBM Procurement Arrangements (PAs) signed between the IO and the corresponding ITER Members (IMs). You will also have the responsibility to ensure TBM integration in ITER and their compliance with the interfaces requirements.

Background

ITER will test tritium breeding module concepts that would lead in a future reactor to tritium self-sufficiency, the extraction of high grade heat and electricity production. All the ITER Organization activities related to this mission form the so-called “TBM Program”. It includes the design, procurement, testing, assembly, commissioning and operation in ITER of the TBM systems that are formed by the TBMs (the in-vessel part) and by the associated ancillary systems (e.g., Tritium extraction systems, coolant systems, I&C systems). Four different TBM systems are planned to be installed and simultaneously operated in ITER, two TBM systems in EQP #16 and two TBM systems in EQP #18.

Key Duties, Scope, and Level of Accountability

- Manages and coordinates the two TBM Procurement Arrangements related to the TBM systems in EQP #18, ensuring optimum performance, quality control, reliability and schedule for TBS components and sub-systems;
- Manages interfaces/integration issues for the two TBM System associated with EQP #18 and ensures consistency with the interfaces/integration design solutions implemented by the interfacing ITER systems;
- Ensures compliance of the preliminary and final design of each of the two TBM systems with the safety defined requirements and with all systems classifications (such as quality, pressure equipment, seismic, tritium and vacuum classifications) and with the procedures related to the TBM systems licensing;
- Anticipates and balances the needs of the various stakeholders related to the two TBM systems in the various locations the Tokamak Complex where the two TBM systems are present, having a good knowledge of the most effective and efficient processes to get things done, with a focus on continuous improvement.
- Is responsible of all Project Change Requests and Deviation Requests impacting the design, the integration, the interfaces and the procurement of the two TBM systems;
- Prepares the Preliminary and Final Design Reviews of the TBM systems ensuring that all identified issues are resolved in a timely manner and that all the related documentation prepared by the IMs TBM Teams are available and reviewed on time with outstanding quality and monitors the performance of the actions associated with the outcomes of the reviews; Assesses and monitors the proposed R&D associated with the validation of TBM systems final design and manufacturing and is responsible of monitoring contracts associated with these validation aspects;
- Analyzes risk and propose risk management strategies to continually update the risk register in relation to the TBM systems in EQP #18;
- 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

- Generates and maintains coherent, comprehensive and understandable design documentation including efficiently, timely monitoring and following-up of relevant Project Change Requests and Deviation Requests;
- Establishes appropriate Quality Assurance and Quality Control procedures for the PA activities related to the TBM systems under the responsibility of the ITER Organization;
- Succeeds in attaining required milestones and schedules concerning the relevant design and procurement activities;
- Reports regularly on the status of the design for the two TBSs associated with the EQP #18, with timely identification of the issues that could have an impact on the schedule;
- Reviews all the documentation needed in a timely manner for performing Preliminary and Final Design Reviews including the resolution of issues, and ensures their availability on time and their outstanding quality;
- Maintains effective communication within the ITER Organization and relevant stakeholders on all aspects of the design and procurement of the TBM systems, in particular for the safety and reliability aspects.

Experience & Profile

- **Professional Experience:**
 - At least 10 years' experience in managing the design and manufacturing of nuclear plant systems, pressure equipment and complex mechanical components for large national nuclear facilities or international projects.
- **Education:**

- Master's degree or equivalent in mechanical or nuclear 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:**
 - Integrated Management of Construction and Engineering: Managing manufacturing strategies and engineering solutions within a reasonable time and at a reasonable cost;
 - Design: Managing the design of components of nuclear facilities making use of relevant nuclear technologies and ensuring nuclear safety and high quality;
 - Interface Management: Identify, resolve and maintain physical and functional interfaces;
 - Construction, project and contract management: Planning, measuring of project work, managing risks/costs and reporting on progress, including procurement management;
 - Quality Control: Verifying the compliance of the procedures for the installation of mechanical components and piping systems with all applicable requirements;
 - European Directive for pressure equipment (PED) and French nuclear pressure regulation (ESPN Ministerial Order) would be an advantage;
 - Technology aspects in relation to the design, construction and operation of high-temperature high-pressure systems would be an advantage.
- **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.

