Job Title: Mechanical Engineer IO0551

Requisition ID **7103** - Posted - (France, 13067 St Paul Lez Durance Cedex) - **Construction and Installation** - **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.

ITER Organization (IO) is an Equal Opportunity/Inclusive organization committed to diversity in the workplace, with diversity and Inclusiveness being one of the ITER Values.

As IO attracts and retains people coming from a vast array of different backgrounds and cultures, bias and exclusion cannot be tolerated. IO believes it is our diverse perspectives and backgrounds 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.

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: 10/09/2023
Department: Machine Construction Department
Division: Sector Modules Delivery & Ass. Division
Section: Toroïdal Field Coil Section
Group: Thermal Shield
Job Family: Construction
Job Role: Engineer – 3
Job Grade: P3
Language Requirements: Fluent in English (written & spoken)
Contract Duration: Up to 5 years

Purpose

As a Mechanical Engineer, you will lead the contractor to ensure that the Thermal Shield (TS) re-manufacturing and repair is properly executed. You will also prepare documentation in support of the TS assembly including management of the schedule, design and manufacturing, development of the manufacturing processes and surveillance of the manufacturing and inspection.

Background

The role of ITER TS is to minimize the radiation heat load from the warm components, such as vacuum vessel (VV) and cryostat, to magnet operating at 4.5 K. The TS consists of VVTS, cryostat TS (CTS) and Support TS (STS). Cooling pipes are welded on the panel made of Austenite stainless steel and pressurized helium gas flows inside the cooling pipes. Since stress corrosion cracking (SCC) was found in the delivered components, it is planned to repair/replace them. After that, they will be assembled in the IO.

Key Duties, Scope, and Level of Accountability

- Manages the quality and schedule of VVTS repair activities by ensuring regular monitoring and reprioritization of tasks as necessary;
- Leads the contractor to successfully satisfy the required quality and schedule of the repair by anticipating, and/or altering and fixing technical issues promptly;
- Improves and rationalizes VVTS assembly procedure in sector assembly and in pit;
- Manages the mechanical design, manufacturing and assembly of the thermal shield;
- Fixes interfaces between components or systems and related tools to assure consistency concerning technical layout and loads;
- Prepares and participates in the assembly and testing of the thermal shield;
- In close cooperation with SMDA assembly team, contract management teams, CMA and assembly contractors, oversees the assembly and testing of the thermal shield;
- 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;
- May be required to work outside the ITER Organization (IO) reference working hours, including nights, week-ends and public holidays.

Measure of Effectiveness

- Manages the quality and schedule of VVTS repair activities efficiently by leading suppliers with regular meetings and monitoring;
- Ensures the successful implementation of repair requirements by anticipating, and/or altering and fixing technical issues promptly;
- Ensures the delivery of the repaired thermal shield, respecting performance, quality and schedule requirements;
- Ensures the on-time completion of assigned studies, reports and other deliverables;
- Contributes to the preparation and implementation of the Assembly Plan for the thermal shield, within overall project schedule and cost;
- Contributes to preparation of technical specifications and other input data for assembly contracts in a timely and proactive manner;
- Successfully identifies and minimizes risks and implements corresponding mitigations related to the assembly and commissioning of the thermal shield;
- Maintains effective communication within the ITER Organization.

Experience & Profile

- ***Professional Experience:***
  - Minimum 8 years' experience in as a mechanical engineer for large mechanical components within complex international environments or projects.
- ***Education:***
  - Master's Degree or equivalent in Mechanical 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:***
  - Specialised Domains of Expertise (Mechanical Engineering): Design, manufacture, inspection, and testing of piping and large mechanical components;
  - Large scale mechanical assembly procedures, including experience preparing and supervising assembly activities under clean environment requirements;
  - Project Management: planning, measuring progress of work, in particular in the areas of risk assessment and mitigation plans is a plus;
  - Familiarity with thermal and mechanical analysis in the context of piping and cryogenic systems is a plus;
  - Familiarity with mechanical design codes and standards such as ASME or similar is a plus;
  - Familiarity with welding techniques and NDE procedures is a plus;
  - Experience in monitoring or supervising fabrication in industry highly desirable.
- ***IO Core 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 (Knowledge of these competencies may be acquired through on-board training at basic understanding level for all ITER staff members) :
  1) Nuclear Safety, Environment, Radioprotection and Pressured Equipment
  2) Occupational Health, Safety & Security
  3) Quality Assurance Processes
- 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 or Department 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.
- 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.