

# Job Title: Tokamak Assembly Engineer IO0442

Requisition ID **6699** - 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.

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:** 18/12/2022

**Domain:** Construction Domain

**Department:** Machine Construction Department

**Division:** Sector Modules Delivery & Ass. Division

**Group:** In-Vessel Assembly

**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 Tokamak Assembly Engineer, you will specify assembly tasks, lead the preparation and review of deliverables produced by assembly Contractors and lead the execution of assembly works of the ITER Tokamak. This includes providing engineering interface support to procurement and manufacturing activities of Tokamak components and/or subsystems.

## **Background**

The assembly of ITER project is progressing in the Assembly Hall and Tokamak Pit for Tokamak construction. The Sector Module Delivery and Assembly Division (SMDA) is responsible for the assembly of the ITER Tokamak, primarily regarding the assembly of Tokamak components (Vacuum Vessel, Toroidal Field Coils, Thermal Shields, Blanket Modules) and/or subsystems (such as instrumentation and diagnostic systems).

## **Key Duties, Scope, and Level of Accountability**

- Develops Tokamak Assembly Engineering work packages on the basis of system engineering input, including surveillance of construction work execution;
- Prepares detailed assembly procedures and control plans for the assembly of Tokamak components and/or subsystems;
- Reviews and monitors assembly tooling interfaces and design, qualification and proof testing;

- Where appropriate, participates in the monitoring of the manufacturing and acceptance of components, including preparation of test and acceptance criteria;
- Identifies and implements specific development tasks and / or feasibility studies which may be needed, including writing technical specifications, tendering and managing contracts where appropriate;
- Actively proposes layout solutions and concepts to overcome assembly issues, to improve quality, and optimize cost and schedule;
- Communicates and collaborates with the Quality Assurance & Assessment Division and Environmental Protection & Nuclear Safety Division to ensure compliance with ITER QA program and safety requirements;
- 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.

Note: 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.

### Measure of Effectiveness

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- Maintains effective communications within the ITER Organization and within the Construction teams;
- Communicates effectively with the designers of Tokamak components to formulate and validate the Assembly Plan and Procedures;
- Prepares engineering work packages to ensure clarity of scope and with clear criteria to enable monitoring and surveillance, in a timely manner to their execution in accordance with the project schedule;
- Surveys and monitors construction work execution ensuring their compliance with cost, schedule and quality requirements;
- Generates and maintains accurate, coherent, comprehensive and understandable documentation within the defined timeline;
- Successfully implements nuclear safety, quality assurance and health & safety measures.

### Experience & Profile

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- **Professional Experience:**
  - Minimum 8 years' experience in the installation, commissioning and maintenance of mechanical and/or electromechanical equipment within complex international environments or nuclear projects;
- **Education:**
  - Master's degree in Mechanical Engineering field 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:**
  - Management of Construction and Engineering: Manage on-site plant assembly/installation strategies and engineering solutions within highly congested worksites;
  - Installation, commissioning and maintenance of remote measurement and/or control systems of large experimental devices;
  - Procurement and contract management: defines requirements, performs sourcing activities, monitors contract delivery, and manages external parties to ensure implementation per

- contractual requirements;
- Writing & Presentation: Ability to produce clear, concise documentation for technical content of tenders and contracts and to write clear and concise reports;
- CAD and PLM software would be an advantage.
- Extensive knowledge of QA systems and their practical application;
- Fusion related technologies, such as Ultra High Vacuum (UHV), of the advanced sensing and measurement systems including optical, microwave, magnetic measurement technologies is an advantage;
- A working knowledge of 3D metrology techniques 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 standard. Capability to take initiative, with a proactive attitude and personal drive; Ability to work with a high level of autonomy when required;
  - 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.

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***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.