

# Job Title: Mechanical Engineer TED-101

Req ID **843** - Posted **17/10/2019** - (France, 13067 St Paul Lez Duranc) - **Design Engineering - 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 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.

**Application deadline:** 24/11/2019

**Domain:** Construction

**Department:** Machine Construction

**Division:** Ex-Vessel Delivery & Assembly

**Section:** Magnet

**Job Family:** Project Engineering

**Job Role:** Engineer - 2

**Job Grade:** P3

**Language requirements:** Fluent in English (written & spoken)

**Contract duration:** Up to 5 years

## **Purpose**

You will be responsible for the engineering, manufacture and assembly of the In-Vessel Coils (IVC) feeder lines and related components. As part of main purpose of the job, you will follow up their procurement, qualify corresponding assembly and installation procedures, contribute to the development of the baseline documentation, and assist in the development/implementation of quality assurance and quality control.

## **Background**

*The In Vessel Coils System is in the procurement phase calling for supervision of the manufacturing, verification of design variations through finite element modelling, and finalization of procedures related to on site assembly and construction.*

## **Major Duties/Roles & Responsibilities**

- Performs the engineering design completion of the IVC joints;
- Manages the contract for the IVC joint qualification and tooling manufacture;
- Maintains the structural integrity reports of all IVC components and performs structural and thermal analyses following design changes or manufacturing deviations;
- Develops and reviews technical specifications and maintains related documentation for the procurement of IVC feeder components;
- Manages the procurement contracts for the IVC feeder components such as the joints;
- Implements quality assurance and quality control of the activities mentioned above;
- Identifies and resolves non-conformance and deviations and implements corrective actions accordingly;

- Defines and manages interfaces with other groups of the construction domain in order to prepare the assembly of the IVC feeder lines and its subcomponents and proposes solutions to solve issues when required;
- 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, weekends and public holidays.

## Measure of Effectiveness

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- Ensures that procurement deliveries meet contract quality, schedule and cost;
- Prepares high quality procurement documentation in a timely manner;
- Manages properly all interfaces and maintains efficient communication to that purpose;
- Updates accurately any analysis reports and structural integrity reports in line with the required timeframes;
- Monitors corrective actions when necessary and solves effectively technical issues;
- Maintains up to date documentation for the defined scope of work in ITER data bases.

## Experience & Profile

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- **Professional Experience:**
  - At least 8 years' experience in managing procurement, design engineering and manufacturing of large mechanical components.
- **Education:**
  - Master 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 in:**
  - The design, manufacture and/or assembly of electro magnets and/or of large bolted/welded mechanical components;
  - Performing structural and thermal analysis of large welded or bolted components by using ANSYS analysis code and assessing performance against defined design criteria;
  - Managing contracts and controlling deliverables in regard to the technical, schedule and costs requirements;
  - Evaluating the compliance of designs with international codes and standards (such as ISO, EN, RCC-MR, ASTM and ASME) for construction of pressure equipment and/or nuclear equipment;
  - Using ANSYS Mechanical APDL software 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/solutions; 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.