

# Job Title: Structural Engineer IO1087

Requisition ID **5642** - 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:** 06/02/2022

**Domain:** Construction

**Department:** Plant Construction

**Division:** Field Engineering Installation

**Section:** Mechanical & Pip. Inst. Surveillance Section

**Job Family:** Engineering

**Job Role:** Coordinating Engineer

**Job Grade:** P4

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

**Contract duration:** Up to 5 years

## **Purpose**

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In this role as a Structural Engineer, you will lead the design team in charge of producing the Engineering Work Packages for the structural and maintenance platforms in Worksite on Tokamak complex and Balance of Plant.

You will oversee and coordinate activities during platforms detailed design and installation, within the defined cost, scope and schedule.

You will also develop the right strategy to optimize the installation sequence, taking into account the overall assembly sequence, in-kind contributions availabilities and the buildings availabilities, in addition to managing design contracts as assigned.

## **Background**

*The MPIS section, integrated within the Field Engineering Installation Division in Plant Construction Department, performs operator surveillance during installation activities of mechanical and piping systems in different plant areas. Field Engineering and Installation Division is responsible for the design of several transverse functions like penetrations, platforms and shielding assemblies.*

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

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- Provides technical leadership to the design team in charge of structural and maintenance platforms design;
- Assures the availability and maturity of input data for the design of the assigned platforms and coordinates with internal and external stakeholders to consolidate the design input;
- Develops and implements strategies for the early availability of Engineering Work packages on time, according to the Construction Master Schedule, as well as to organize the suitable technical support to the construction team during execution of the platforms.
- Coordinates the activities of technical team in charge of the platforms by ensuring the proper supervision and guidance and by producing a detailed design plan as well as the installation surveillance plan.
- Manages the interfaces between structural platforms and supported systems, verifying the structural coupling between platforms and systems;
- Participates in the selection process and then manages the contract for outsourced design of platforms;
- Coordinates the preparation of design reviews and manufacturing readiness reviews for the assigned scope, assuring availability, quality and completeness of the Hand over Packages for construction of the assigned scope;
- Coordinates the review process of detailed workshop drawings or any Installation Procedures, Inspection & Test Plans and the installation testing issued by the Contractor;
- Issues inspection and observation reports when and where required;
- Assures consistency among the structures in his/her area of responsibility in installation phase and the engineering work packages issued under his coordination;
- Provides expert criteria for structural discipline related problems and follows-up on the resolution of the field engineering changes and installation non-conformances; Is responsible for assessing the optimal installation sequence of the structural systems under his/her area of responsibility
- 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**

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- Achieves the Final Design Review and the Manufacturing Readiness Review as per the construction schedule for the assigned scope;
- Anticipates or resolves interface and integration issues related to the platforms promptly to minimize disruption to the schedule;
- Reports on the status of the design, fabrication and installation in a timely and accurate manner;
- Coordinates the handover of Engineering Work Packages (EWP) to CMA in good time, ensuring the proper transfer of information;;
- Ensures schedule, cost and scope satisfaction for the associated contracts;
- Effectively manages the interfaces associated with his/her scope of activities, and maintains related documentation up to date;
- Controls, monitors and respects the cost and schedule for the execution of activities in accordance with ITER Project objectives;
- Maintains effective communication and excellent relations with interfacing teams within ITER and with external contractors/suppliers;
- Provides sound technical advice and ensures decisions are made in line with safety and quality standards.

### **Experience & Profile**

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- **Professional Experience:**
  - Minimum 10 years' experience in in the design, procurement, fabrication and installation supervision of large structures supporting piping and equipment for power plants or other

industrial facilities, within complex international environments preferable in the Nuclear Sector or with rigorous safety requirements.

- ***Education:***

- Master degree or equivalent in Structural or 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:***

- **Integrated Management of Construction and Engineering:** Managing structural platforms and engineering solutions within a reasonable time and at a reasonable cost, including large structures fabrication and installation procedures as well as welding techniques, testing and NDT techniques,
- **Structural Design:** Practical design solutions, fabrication and erection of structural platforms to Eurocode and Nuclear Plants structural codes such as ASME BPVC Section III - NF, AISC N690 or similar. Structural static analysis and seismic analysis with excellent knowledge of coupling effects between equipment or piping and structures, as well as other dynamic effects, like those induced by rotating machines. Structural connections design solutions and design procedures.
- Identification of different loading conditions, under different accidental conditions as per Accidental Analysis Report and application of nuclear safety requirements to the design of structures, systems and components;
- **Interface Management:** Identify, resolve and maintain technical and functional interfaces;
- **Construction, Project and Contract Management:** Planning, measuring of project work, managing risks/costs and reporting on progress;
- **Quality Control:** Verifying the compliance of the procedures for the installation of mechanical components and piping systems with all applicable requirements;
- Piping supporting systems technologies, as well as fixation systems for nuclear plants;
- ANSYS, GT Strudl, SAP 2000, 3D CAD plant software (AVEVA and Catia or Revit) is advantageous.
- Fusion related technologies and systems will be considered advantageous.

- ***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.

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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.