# Job Title: Engineering Officer IO0980

Req ID **1960** - Posted **21/09/2020** - (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:** 11/10/2020
**Domain:** Construction
**Department:** Plant Construction
**Division:** Mechanical Implementation
**Section**: Cooling Mechanical & Welding
**Job Family:** Project Engineering
**Job Role:** Engineer - 1
**Job Grade:** P2
**Language requirements:** Fluent in English (written & spoken)
**Contract duration:** Up to 5 years

## Purpose

As an Engineering Officer, you will contribute to the completion of various engineering design, drawings and models of mechanical systems. You will collaborate with different stake holders, such as engineers, designers and construction teams to ensure that the drawings and the Engineering Work Packages (EWP) are prepared to the highest quality, engineering and industrial standards, in addition to ensuring their release on the required date as per the schedule.

## Background

ITER Mechanical Implementation Division (MID) is responsible for releasing Engineering Work Packages for the construction of ITER plant systems inside the Tokamak Building and many other non-nuclear or associated buildings. The present systems under consideration are the Components Cooling Water System and Vacuum Vessel Pressure Suppression System. After completion of the mechanical analysis, the designers develop the engineering design, the 3D models of the particular system using specified software, such as CATIA and AVEVA E3D. Such development requires close co-ordination with the design office in terms of development of the proper component catalogues and many utilities to provide correct parameters, such as dimensions, mass etc. From the approved 3D, all 2D drawings are extracted along with support drawings, which are then supplemented with information for manufacturing.

## Major Duties/Roles & Responsibilities

- Acts as a key reference in the production of the drawings and models based on mechanical engineering inputs and associated transversal functions within MID;
- Harmonizes the work between CAD and engineering inputs and works with relevant stakeholders to:
  - Take the mechanical analysis as input, consolidate and coordinate the development of the Final Engineering models in the respective software (AVEVA E3D, AVEVA Design, CATIA, and ENOVIA) so that after the finalization of the final model, the preparation of drawings can take place;
  - Perform gap analysis and ensures that gaps are mitigated between the mechanical analysis and the 3D models of the respective systems;
  - Perform quality checks;
  - Review the CAD resulting deliverables (including drawings).
- Provides support to the team in resolving engineering drawing related issues that may arise during the execution of the work;
- Prepares technical work instructions for the production of EWPs and ensures their propagation to all stake holders;
- Prepares, monitors and fixes problems to secure the work progress against the agreed schedule;
- Produces progress reports, outlining problems areas and proposing corrective measures;
- Contributes to the IO CAD work plan definition and implementation as system engineer;
- Ensures that lessons learned and engineering solutions are well propagated within the team and implemented to mitigate future issues;
- Monitors, guides on and implements nuclear safety requirements in the engineering outputs;
- Monitors change management during construction and provides support to the mechanical engineering teams to resolve the construction issues, including Request for Information (RFI) from the contractors and addition as built configuration, to then continue through pre-commissioning and commissioning;
- Develops the engineering designs of systems, based on the process and relevant inputs such as PFD, P & ID, Mechanical Analysis;
- Supports the line management on material procurement for construction based on the engineering work packages;
- 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 shifts, nights, weekends and public holidays.

## Measure of Effectiveness

- Efficiently implements actions to move forward the project specifically related to industrial quality engineering drawings for the release of engineering work packages;
- Fixes efficiently technical issues related to engineering drawings;
- Guarantees consistency in the engineering design ensuring an efficient communication and integration with the ITER construction engineers during the construction phase and future operation phase;
- Alerts line management promptly on possible risk areas with appropriate preventive and corrective action plan(s);
- Proactively follows and actions on multi-CAD activities, so that all the catalogues have been developed before the start of the 3D design work;
- Ensures compliance and traceability and records of all relevant documents as per nuclear safety requirements and quality standards.

## Experience & Profile

- *Professional Experience:*
  - At least 7 years' experience working within engineering coordination of complex installations, such as piping systems (including equipment) and its integration with 3D models, preferably in the Oil & Gas or nuclear field.
- *Education:*
  - Bachelor degree or equivalent in Industrial or Mechanical Engineering or equivalent

    - 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:*
    - Design (creating technical design based on project requirements): Writing and reviewing technical documentation packages, instructions and guidance; Contributing or leading design review; developing models and calculation; Experience in a remote design collaboration environment;
    - Systems Engineering and Design Control (Design Input and Change Control, Design Development and Interface Control, Design Verification and Validation): Managing resources and contracts; Experience in using CAD software (e.g. AVEVA E3D, CATIA/ENOVIA);
    - Interface Management (identifying, resolving and maintaining technical and functional interfaces): Knowledge and skills needed to work independently in the specific domain of work; Analyzing and proposing solutions for interface or challenging technical issues problems, drawing on experience and expertise
    - Specialized Domains of Work & Technical Expertise: Good technical knowledge in CAD engineering for large and complex system involving piping valves and other equipment; Welding procedures of industrial systems will be an added advantage;
    - Project Management (managing a specific program or initiative within the constraints of human and financial resources): Carrying out fit-gap analysis; Identifying risks and proposing mitigation actions; Alerting on potential issues; Reporting on project progress; Developing a project plan with the technical specifications in order to achieve the objective; Managing stakeholders assigned to the project to ensure timely implementation; Managing the procurement and budget processes for the project using SMARTPLANT and/or MS Project;
- *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.

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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, **r**adioprotection 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 lline management and that may jeopardize the achievement of the Project's objectives.