

Job Title: Process Engineer IO1022 & TCWS-053

Requisition ID 7933 - Posted - (France, 13067 St Paul Lez Durance Cedex) - Engineering of Systems - New Posting

Fusion, the nuclear reaction that powers the sun and the stars, is a promising long-term option for a sustainable, non-carbon emitting global energy supply.

The ITER Organization (IO), based in the southern France, welcomes best talents who can together prepare the way to this new energy in a truly multi-cultural work environment.

We offer challenging assignments in a wide range of areas and encourage applications from candidates will all levels of experience. Applications from under-represented ITER Members' nations and women candidates are strongly encouraged, as IO strongly believes that a diversified, equitable, and inclusive workplace is crucial in solving one of the most complex scientific and engineering projects in the world today.

As the IO attracts and retains people coming from a vast array of different backgrounds and cultures, discrimination and exclusion cannot be tolerated. The IO believes it is our diverse perspectives and background 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. The IO is committed to fostering a fair and equitable environment across all areas of the project, including compensation and benefits. ITER CARE Values (Collaboration / Accountability / Respect / Excellence): We perform our work with care, we care for the well-being of colleagues, our families and ourselves, and we care about the health of the planet for generations to come. CARE drives our work and our behaviors at ITER.

To see why ITER is a great place to work, please look at this [video](#)

**Application Deadline:** 13/07/2025  
**Department:** Engineering Services Department  
**Division / Program:** Plant & Process Engineering Division  
**Job Grade:** P1/P2  
**Language Requirements:** Fluent in English (written & spoken)  
**Contract Duration:** Initial Employment Contract up to five years with possibility for extension  
**Overview**

**Are you looking for an exciting opportunity at the heart of an ambitious fusion energy project?** Join our Plant & Process Engineering Division (PPED), within the Engineering Service Department (ESD) as a Process Engineer

- As a **Process Engineer**, your goals will include:
- Using engineering analysis to inform design decisions whilst ensuring work aligns with relevant codes and standards.
  - Producing high-quality engineering solutions across a broad range of process engineering topics over the lifecycle of the system.
  - Ensuring deliverables are produced according to project schedule and budget, within a quality-assured environment that requires rigor and a systematic way of working.
  - Developing, under the leadership of your discipline manager, your skills and experience for the benefit of the Project.

*The ESD provides the required skilled engineering resources or services, which are necessary for the successful completion of the ITER Project. Plant & Process Engineering Division provides technical support to the ITER project in the field of Process Engineering. Being a member of the Plant & Process Engineering Division, you will have the opportunity to share and develop your expertise with other colleagues working in the same discipline on different ITER units.*

Key Duties and Responsibilities

- Primary Responsibilities:**
- Develops and finalizes functional analysis, control logic design studies and operational guidelines for new and existing plant systems under the assigned scope ensuring compliance with interfacing systems.
  - Provides in-depth analysis, calculations and process reports for a variety of plant systems to check that the design fulfils the requirements of full plant lifecycle including procurement, testing, commissioning, operation, maintenance and decommissioning.
  - Undertakes mass balances, heat balances, process modelling, and simulations (Fathom, Relap, Impulse, Arrow, EcosimPro, ANSYS).
  - Supports procurement activities under the assigned scope by preparing technical specifications, relevant tenders, and updates documents as needed for the fabrication and testing of the plant systems in accordance with the requirements.
- Additional Responsibilities:**
- Supports commissioning and plant performance testing / troubleshooting including preparation of documentation for testing and commissioning whilst considering client requirements as well as availability of suppliers.
  - Produces Process Flow Diagrams, Piping and Instrumentation Diagrams, Layout Drawings, and Specifications, Equipment Process Data Sheets, Instrument Data Sheets, Interlock Description, Cause and Effect Diagrams.

**Please note that job descriptions cannot be exhaustive, and the staff member may be required to undertake other duties, which are broadly in line with the above primary responsibilities.**

- This position is shift and/or on-call based, and crucial to maintaining continuous operations and ensuring the highest level of service for our stakeholders. This requires shift rotation [and/or availability] including day, evening, and night shifts, as well as weekends and holidays, depending upon project or team needs;

Experience & Competencies

- Essential:**
- **Proven experience** in managing engineering design, integration and installation of liquid & gas process and instrumentation lines in the field of nuclear or hazardous environments.
  - **Process Engineering:** Process plant design, flow calculations, pipe stress analysis including specifying. designing, testing, installing and maintaining liquid and gas systems in order to meet the system performance requirements, the nuclear safety requirements and the investment protection requirements.
  - **Definition of System Architecture** and possible contribution to the system mechanical design, the system I&C logic, the technical specification of the system components (ex: pipe diameter, pump curve, heat exchanger thermal capacity ...), the system normal / incidental / accidental operation and corresponding procedures, and the system commissioning program / procedures.
  - **System design development:** including process and/or high category nuclear safety systems, design engineering and analysis.
  - Manufacturing, welding, testing, qualification and commissioning, including preassembly planning and execution.
  - **Continuous Improvement:** proposing changes to processes and systems to enhance efficiency, quality, and productivity over time.
  - **Quality Management Systems (QMS):** apply the applicable procedures related to your field of activity.

- Desirable:**
- Knowledge of process simulation software (Fathom, Relap, Impulse, Arrow, EcosimPro, ANSYS).
  - **Organizational Savvy:** maneuvering comfortably through complex policy, process, and people related organizational dynamics.
  - **Optimizes Work Processes:** knowing or identifying the most effective and efficient processes to get things done, with a focus on continuous improvement.
  - French language is advantageous to support replies to Regulator queries,

Qualifications

**Essential:**

- Master’s degree or equivalent in Process or Chemical Engineering field or other relevant discipline.
  - *The required education degree(s) may be substituted by extensive professional experience involving similar work responsibilities and/or additional training certificates in relevant domains.*
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*The following items apply to all jobs and job holders for the duration of tenure at ITER Organization:*

- **The CARE Values are a framework of principles that guide our actions and define the culture and spirit of the ITER Project:**
  - Collaboration:** We collaborate with commitment and flexibility using the power of teamwork, building partnerships, and working with others to reach shared objectives;
  - Accountability:** We are accountable for the whole project - we take responsibility for our specific actions and are transparent in our daily work, holding self (ourselves) and others accountable to meet commitments;
  - Respect:** We treat each other with respect and dignity at all times, knowing that all of us belong here. We appreciate the value that our multicultural and diverse community brings to the ITER Project;
  - Excellence:** We are driven by excellence; we are agile and innovative while maintaining the highest standards of safety, quality and integrity;
- **ITER Core Technical Competencies:**
  - 1) **Nuclear Safety, Environment, Radioprotection and Pressured Equipment**
  - 2) **Occupational Health, Safety & Security**
  - 3) **Quality Control & 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 perform other duties in support of the project as defined by your line manager, and when relevant upon the request of the matrix manager;
- May be requested to work outside the ITER Organization reference working hours, including nights, weekends and public holidays, due to business needs - this may include on-call, shift work, etc.
- May be requested to be part of any of the project/construction teams and to perform other duties in support of the project;
- 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.**
- Informs management of any important and urgent issues that cannot be handled by line or matrix management and that may jeopardize the achievement of the Project’s objectives;

The ITER Organization (IO) is an Equal Opportunity organization committed to diversity and inclusive in the workplace.