

# Job Title: Coordinating Process Engineer

## TCWS-027

Requisition ID **6629** - 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:** 06/11/2022

**Domain:** Construction Domain

**Department:** Plant Construction Department

**Division:** Mechanical Implementation Division

**Section:** Tokamak Cooling Water System Section

**Group:** Not applicable

**Job Family:** Construction

**Job Role:** Coordinating Engineer

**Job Grade:** P4

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

**Contract duration:** 3 years

***Specific note:*** *This vacancy is for less than 3 years, the employment contract is valid until December 2025, while it will be subject to the contract renewal process according to the staff regulations.*

**Purpose**

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As a Coordinating Process Engineer, you will monitor the Final Design and procurement of the ITER Tokamak Cooling Water Systems (TCWS) and subsystems, providing technical direction, required input data, resolution of technical, scope, and cost/schedule conflicts, and ensuring that system components meet the project requirements and are delivered on time.

### **Background**

The TCWS is designed to remove approximately 1,000 MW of heat from the Vacuum Vessel and the In-Vessel Plasma facing components. The relevant hydraulic circuits have a very complex piping distribution that imposes a detailed design of the flow balance of the parallel cooling lines as well as the inlet pressure to the In-Vessel components.

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

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- Leads the TCWS process design for the different TCWS subsystems;

- Coordinates the daily activities of the other process engineers in the TCWS Section;
- Assists the assembly, commissioning and the operation of the ITER Tokamak Cooling Water Systems;
- Monitors and ensures implementation by others for TCWS process documentation is up to date, under configuration control and consistent with other documentation structural reports, layout, etc.);
- Oversees the TCWS procurements by making sure that process requirements are respected and implemented;
- Monitors and implements the schedule for the final design, manufacturing, testing, delivery, installation and commissioning of TCWS;
- Adapts the process design to comply with available equipment and as built data minimizing any cost and schedule impact;
- Provides technical assistance and surveillance of the safety requirements' propagation from the design activities to the manufacturing and delivery of TCWS systems at IO site;
- Reviews the Functional Analysis of the TCWS and their physical and functional interface requirements keeping the commissioning as final objective;
- Ensures accurate interface control of the TCWS through close collaboration with the ITER concerned responsible for cooled clients and suppliers ;
- Integrates and coordinates the TCWS design with the rest of the interfaced systems/components;
- Reviews and approves documents and drawings for the procurement and manufacturing of TCWS as issued by concerned Domestic Agencies (DAs) / IO and Subcontractors;
- Supports the licensing activities for safety design and assessment of the safety related function;
- Develops commissioning procedures as required for the project phase for equipment, sub-systems and system wise as per configuration;
- 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.

Special notice: 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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- Coordinates effectively the TCWS Process Engineers, ensuring work is delivered on time and in line with quality requirements;
- Adapts the process efficiently (whilst still complying with functional and safety requirements) in order to cope with cost and schedule / available equipment / as built data;
- Ensures TCWS process documentation is maintained and recorded up to date and consistent with other documentation, structural reports, layout, etc.);
- Anticipates and/or proposes practical, cost-effective, manageable and efficient solutions to solve issues;
- Communicates efficiently with all stakeholders associated with interfacing systems and management;
- Works effectively in teams and contributes to the overall success of the TCWS design/build project.

### Experience & Profile

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- **Professional Experience:**
  - Minimum 10 years' experience as a Process Engineer with strong knowledge of water chemistry, in the field of nuclear plants or facilities;
- **Education:**
  - Master degree or equivalent in Mechanical, Nuclear or Chemical 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:**
  - Design: Nuclear plant system design development, including process and/or high category nuclear safety systems, design engineering and analysis;
  - Manufacturing, testing, qualification and commissioning of nuclear systems;
  - Quality control: verifying compliance of components with applicable requirements;
  - Project Management within an engineering context, including procurement and contracts (writing technical specifications, planning, measuring progress of project work, deliverables, managing risks/costs and reporting on progress);
  - Problem Solving: assesses problems, identifies root causes and reaches practical solutions in a consistent way to reach project objectives;
  - Capability in Process Simulation software (e.g. Fathom, Relap, ASPEN);
  - CAD capabilities would be 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 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.