

Job Title: Safety Analyst IO0727

Requisition ID **8025** - Posted - (France, 13067 St Paul Lez Durance Cedex) - **Safety and Security - 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 with 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: 28/09/2025

Department: Engineering Services Department

Section / Project: Nuclear Safety Engineering Section

Job Grade: P2 (SALARY SIMULATOR)

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 us as a **Safety Analyst** where your goals will include:

- Performing thermo-hydraulic calculations concerning incident and accident scenarios associated with ITER safety cases.
- Propagates the outcome of safety calculations in the form of safety requirements and verifies their implementation throughout the design of relevant systems.
- Preparing documentation in support of safety calculations for the ITER licensing process (e.g. safety reports).
- Assessing/verifying safety analyses' models, codes and related validations.
- 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 Engineering Service Department provides the required skilled engineering resources or services, which are necessary for the successful completion of the ITER Project.

The Nuclear Safety Engineering section supports different IO entities requiring nuclear safety expertise, including Thermal-hydraulic Analysis of Incidental/Accidental scenarios.

Being a member of the Nuclear Safety Engineering Section, 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:

- Defines hypothetical incidental/accidental scenarios, sets up and uses computational models of the ITER systems in the analysis of potential consequences of these scenarios.
- Performs thermo-hydraulic and release calculations, particularly for the modeling of incident and accident scenarios using MELCOR code.
- Develops, reviews and updates documentation to support calculations.
- Validates the codes and models used for safety analysis, in particular for MELCOR code.

Additional Responsibilities:

- Provides guidance as required to technical units on related issues, scenarios and thermo-hydraulic calculations.
- Implements and verifies propagation of the nuclear safety requirements for protection important systems and components within the project.
- Verifies the compliance of the identified protection important components with their defined nuclear safety requirements.

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.

Experience & Competencies

Essential:

- Extensive experience in performing, reviewing, and coordinating thermo-hydraulic analyses with computer codes such as MELCOR, ASTEC etc.
- Ability to understand, review technical instructions, synthesize documents and to write clear reports.
- **Safety Analyses - Accident Studies:** Knowledge in thermo-hydraulics codes and accident modelling, transfer coefficient throughout the processes.
- **Safety Analyses:** Systematically identifying the hazards of a given operation, including a description and assessment of the adequacy of measures taken to eliminate, control, or mitigate the hazards and risks of normal operation, and identification and analyses of potential accidents and their associated risks.
- **Thermal-Hydraulic Analysis:** Using mathematical models, computational simulations, and experimental techniques to evaluate parameters such as fluid velocity, pressure distribution, temperature profiles, and heat transfer rates within a system.
- **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 nuclear safety and regulatory requirements.
- **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.

Qualifications

Essential:

- Masters' degree or equivalent in Nuclear Engineering, Thermo-Hydraulic or other related field.
- *The required education degree(s) may be substituted by extensive professional experience involving similar work responsibilities and/or additional training certificates in relevant domains.*

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.