Job Title: Safety Officer IO0816-IO0313

Requisition ID **4700** - Posted - (France, 13067 St Paul Lez Durance Cedex) - **Safety and Security** - **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: 14/11/2021
Domain: Director-General
Department: Safety & Quality
Division: Environmental Protection & Nuclear Safety
Section: Not Applicable
Job Family: Engineering
Job Role: Engineer – 2 /3
Job Grade: P2/P3
Language requirements: Fluent in English (written & spoken)
Contract duration: Up to 5 years

Purpose

Two openings – Please note that your application will be considered for both positions depending on your profile, and that grade will be proposed according to the scope and responsibilities covered.

As a Safety Officer, you will produce analysis and surveillance in all matters related to ITER safety and environmental issues in order to cover the risks for various phases of the ITER facility (design construction, assembly, commissioning, operation);
One officer will mainly focus on the safety and environmental functions associated with Test Blanket modules, cryogenic systems, magnets and fusion diagnostics systems, as well as cryogenic effects on safety functions of buildings, systems and structures.
The other officer will focus on the safety and environmental functions associated with vacuum and fueling systems, as well as coordination of fire analyses.
You will initiate and implement or maintain the necessary calculation tools needed to perform specific calculations and analyze their results related to nuclear safety and environmental issues for ITER related to the systems in charge;

Background

Within the Safety and Quality Department, the Environmental Protection and Nuclear Safety Division (EPNS) is in charge of the analysis of all risks associated with nuclear safety functions, impacts to people, and the environment. These risks can be due to internal hazards (fire, explosion, thermos-hydraulic, etc.) or to external hazards (earthquakes, rods traffic, neighboring industrial facilities, etc.). EPNS oversees the

licensing documents, and specifically the safety demonstration (safety case), by studying all risks to integrate and propagate the appropriate lines of defense against into design, procurement, construction, assembly, qualification, commissioning and operation phases of ITER nuclear facility. Safety Officers are assigned to support the Technical Responsible Officers (TROs) located in the ITER Organization (IO)'s technical departments and ensure a strong support in the area of nuclear safety to other entities by propagating through the configuration management the safety requirements that are defined in proportion to the safety objectives and importance.

Key Duties, Scope, and Level of Accountability

For the first position:

- Acts as Safety Officer for various systems related to cryogenic fluids, diagnostics, magnets, in-vessel coils and Test Blanket Modules (TBM) for any stage of the system life cycle, in order to ensure surveillance of the activities as performed by other entities;
- Carries out best engineering estimates and ad hoc analyses to identify open issues and support all safety aspects including arc damage consequences, liquid-He flows, etc.;
- Surveys the overall dangerous inventories associated with Test Blanket Systems and other systems.

For the second position:

- Acts as Safety Officer for various systems related to vacuum and fueling systems for any stage of the system's life cycle, in order to ensure surveillance of the activities as performed by other entities,
- Coordinates fire safety analyses for various components and systems;
- Carries out best engineering estimates and ad hoc analyses to identify open issues and supports all safety aspects including tritium permeation, tritium inventory control, etc.;
- Coordinates Research & Development (R&D) studies performed under external contracts and task agreements related to fire safety assessments.

For both positions:

- Solves ongoing safety and environmental issues, provides the data needed in this field for the associated safety demonstrations;
- Provides expertise and performs calculations (with software or hand-guided calculations) for safety matters related to design, construction, assembly, commissioning or operational activities;
- Performs specific safety analyses with regards to the compliance of the design, construction and operation with the safety case;
- Validates and ensures the propagation of input data as used in the safety case and those used in design, construction or operational changes;
- Writes and edits project documentation for safety reports or licensing documents;
- Technically plans and coordinates collaboration including the implementation of safety design;
- Monitors progress and fulfillment of objectives, deliverables and deadlines;
- Reviews task reports for project approval;
- Oversees and guides collaboration to implement the ITER safety approach and to guarantee both consistency and safety provisions within the ITER design and operation;
- Shows strong commitment to the ITER safety approach and enforces it through individual behavior within the Organization;
- 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.

Note: 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

- Performs and delivers accurate analyses and calculations within defined timeframes;
- Manages safety cases related to the systems in charge through oversight, development, updating and maintaining content for the specific safety demonstration;

- Reports about progress made on the tasks regularly;
- Generates and maintains trustworthy, up-to-date information for the project management tools;
- Provides efficient safety guidance to ITER Organization and Domestic Agencies ensuring a proper implementation of safety requirements within the defined schedule;
- Ensures the acceptance of the ITER safety case run by the French Nuclear Safety Authorities are properly handled.

Experience & Profile

- ***Professional Experience:***
  - Minimum 8 years' experience for P3 level (or 5 years' for P2) in the writing independently safety cases, safety reports or general safety rules for complex nuclear facilities and for submission to a nuclear safety regulator.
- ***Education:***
  - Master degree or equivalent in Nuclear Safety 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);
  - Ability to read documents in French and to answer in French to the regulator would be an advantage.
- ***Technical competencies and demonstrated experience in:***
  - Analysis, requirements definition, risk identification and management: analyze, anticipate, and adapt proposed solutions, tasks and procedures to the environment and constraints, cascading customized requirements to stakeholders;
  - Implementation surveillance: surveying the correct implementation of requirements in all project phases;
  - Writing or assessing safety demonstrations for nuclear facilities and the application of nuclear safety principles (safety culture);
  - Issuing clear summary and synthesis of documents and to write reports;
  - Regulatory approach in France, the principles of nuclear safety and understanding of their application in a broader context;
  - Calculating tools (e.g. Matlab);
  - Fusion technology, diagnostics, magnets and test blanket modules related to design, configuration, operation or analyses of these systems would be advantageous;
  - Tritium facilities would be advantageous;
  - Safety codes related to fire: simple codes (e.g. CDI), zone codes (e.g. Sylvia), or 3D codes (e.g. FDS) 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.

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.