Job Title: Nuclear Fusion Safety Chief Engineer IO1120

Requisition ID **6939** - 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.

ITER Organization (IO) is an Equal Opportunity/Inclusive organization committed to diversity in the workplace, with diversity and Inclusiveness being one of the ITER Values.

As IO attracts and retains people coming from a vast array of different backgrounds and cultures, bias and exclusion cannot be tolerated. IO believes it is our diverse perspectives and backgrounds 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.

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: 11/04/2023
Domain: Director-General
Department: Safety & Quality Department
Job Family: Project Support
Job Role: Specific Role
Job Grade: P6
Language requirements: Fluent in English (written & spoken)
Contract duration: Up to 5 years

Purpose

As Nuclear Fusion Safety Chief Engineer, you will support the ITER Organization (IO) in carrying out the activities related to the Nuclear Safety demonstration of ITER.
Reporting to the Head of the Safety and Quality Department (SQD), you will work closely with the ITER Director General (DG) and Head of Nuclear Safety Division (NS) to develop the overall ITER nuclear safety strategy and analysis of risks associated to nuclear safety functions (confinement and radiation protection) and their environmental impact. You will also participate in the coordination of the updates of the licensing documents to be submitted to the French Nuclear Safety Authority (ASN) and/or environmental authorities.

Background

The Safety & Quality Department (SQD) supports the ITER Director General (DG) to facilitate and ensure the IO and relevant stakeholders' compliance with the Safety and Quality Management program: 1) Article 14 of the ITER Agreement https://www.iter.org/doc/www/content/com/Lists/WebText_2014/Attachments/245/ITERAgreement.pdf states: "*The ITER Organization shall observe applicable national laws and regulations of the Host State in the fields of public and occupational health and safety, nuclear safety, radiation protection, licensing, nuclear substances, environmental protection and protection from acts of malevolence*", and 2) Integrated Management System through the Management & Quality Program (MQP), throughout all lifetime phases of IO's installations including: design, construction (with manufacturing and assembly of structures systems and components), Commissioning, Operation, dismantling and release from regulatory control, maintaining close collaboration with all other ITER Organization (IO) and Domestic Agency (DA) departments is of utmost importance with a view to developing a common safety, security and quality culture.

Key Duties, Scope, and Level of Accountability

- Contributes in the establishment of the high level nuclear safety strategy in compliance with regulatory requirements and with respect to the Host State's safety regulations and international safety standards;
- Provides expertise and coordination across the Project in the definition, analysis, and implementation of the nuclear safety demonstration and of other licensing documents for ITER, including the R&D needed for these documents
- Advises and proposes specific technical approaches to optimize design and operation in order to refine and adapt the safety demonstration of ITER with regards to French and international standards in respect with ALARA principles;
- Upon request from the management, may be requested to coordinate task forces or working groups to perform special duties or implement special projects;
- May be requested to support 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, week-ends and public holidays.

Measures of Effectiveness

- Provides Nuclear Safety technical/engineering solutions and effective communications within the ITER project, including all interfacing stakeholders, as well as Domestic Agencies;
- Contributes effectively to the acceptance of the ITER documents produced in support of the licensing process by the French Nuclear Safety Authorities.

Experience & Profile

- ***Professional Experience:***
  - At least 10 years' experience in magnetic fusion technology, architecture, process and associated safety demonstration;
  - Experience in coordinating tasks in projects within a Nuclear Safety regulatory environment;
  - Ability to obtain and maintain a French security clearance on a justified need-to-know basis is required.
- ***Education:***
  - Master's degree or equivalent in Engineering or equivalent in the 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);
  - Good knowledge of French is deemed important in order to understand licensing related documentation.
- ***Technical Competencies and demonstrated experience in:***
  - In depth knowledge of systems function, engineering of magnetic fusion devices in particular to their impact on nuclear safety;
  - The implementation of the principles of nuclear safety applicable to Tokamaks and nuclear fusion;
  - Nuclear safety analyses regarding postulated initiating events and internal and external hazards;
  - Reporting, follow up and management of actions: summarize and communicate (written and verbal) technical reports, recording, checking and ensuring implementation of actions;
  - Managing multi-disciplinary international teams and interacting with high level stakeholders, host authority and experts in different safety disciplines;
  - Implementing safety programs in a large construction project related to nuclear/fusion and excellent familiarity through operation of a facility;
  - Implementing safety engineering methods to deliver fit-for-purpose solutions;
  - Implementing Host State's regulation on nuclear safety and their application to nuclear facilities (including fusion facilities).
- ***Behavioral Competencies:***
  - Instill trust: Ability to apply high standards of integrity, trust and team mindset;
  - 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/define problems accurately before moving to proposals.

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 (Knowledge of these competencies may be acquired through on-board training at basic understanding level for all ITER staff members) :
  1) Nuclear Safety, Environment, Radioprotection and Pressured Equipment
  2) Occupational Health, Safety & Security
  3) Quality Assurance Processes
- 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.
- 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.