

Job Title: Nuclear Shielding Coordinator IO0060

Requisition ID **5901** - 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: 27/04/2022

Domain: Director-General

Department: Safety & Quality

Job Family: Project Support

Job Role: Coordinating Officer

Job Grade: P4

Language requirements: Fluent in English (written & spoken)

Contract duration: Up to 5 years

Purpose

As a Nuclear Shielding Coordinator, you will enhance, maintain, promote and implement ITER Organization (IO) strategies and policies related to radiation safety. You will also promote those safety policies and strategies on suppliers' worksites of Domestic Agencies as appropriate, especially when feature design is concerned.

Background

The Radiation & Beryllium Safety Group (RBSG) is part of the IO Safety & Quality Department and is in charge of the radiation protection of the workers, the public and nuclear safety related equipment (including electronics). The group is also in charge of the protection of the workers and the public against the danger arising from non-radioactive Beryllium exposure.

Key Duties, Scope, and Level of Accountability

- Develops IO approaches, procedures, use codes and establishes the resource plan along with technical solutions, for nuclear shielding and radiation analyses;
- Manages and controls all nuclear analyses, communicating with component Responsible Officers, safety groups and other related staffs/groups dealing with ITER project, in order to ensure appropriate contribution to ITER construction and future operation;
- Prepares and contributes to safety files to be established on radiation safety, in addition to answering and/or demonstrating for the regulatory body and its technical support organization (ASN, IRSN) on a regular basis;

- Defines the work plan and the document production plan for the nuclear analyses needed in the short, medium and long term; and defines the procedures, codes and tools to be developed and maintained to perform the radiation safety analyses to support IO;
- Plans and defines priorities for nuclear analyses proposed by the component designers or nuclear Safety Responsible Officers, in accordance with work planning and project schedule; and reviews and follows-up nuclear calculations performed or provided by ITER stakeholders;
- Defines the required budget and resources, prepares technical specifications for external contracts or resources' support, follows-up the budget execution and contract completion respecting cost, time and quality requirements;
- Prepares data base for the verification of calculation accuracy reviewing past experiments conducted by fusion and fission communities and organize new benchmark experiment if necessary;
- Supports and monitors proper use of software and input data for nuclear analyses (i.e. Computer Aided Design (CAD)/Monte Carlo N-Particle (MCNP) interface);
- Assesses the impact of design changes and/or evolution on nuclear loads on ITER components and verification that the important and basic nuclear responses are kept within the design limits, not degrading ITER machine performance of safety prospects;
- Supports the timely execution of the nuclear calculations and the verification of the design inputs;
- May be requested in advance to work outside ITER reference working hours, including nights, weekends and public holidays;
- May be requested to support any of the project/construction teams and to perform other duties in support of the project.

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

- Successfully develops IO approaches, procedures, use codes and performs other tasks in line with the agreed schedule;
- Presents and updates regularly the ITER Nuclear analyses and radiation shielding roadmap, in accordance with relevant practices/standards;
- Produces high quality standards reports and summaries of the performed and revised analyses related to Nuclear Shielding within the defined timeline;
- Presents regular reports on R&D activities within the defined timeline;
- Generates and maintains accurate and trustworthy, up to date information related to the machine technical scope;
- Maintains effective communications with all internal stakeholders and external organizations interfacing with ITER.

Experience & Profile

- **Professional Experience:**
 - Minimum 10 years' experience in radiation transport simulation applied to complex nuclear projects within international environments or projects;
- **Education:**
 - Masters' degree or equivalent in the field of Nuclear Physics, Engineering or other relevant discipline;
 - A PhD in nuclear physics would be considered as an advantage;
 - 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
 - Working knowledge of French would be advantageous.

- **Technical Competencies and demonstrated experience in:**

- Safety aspects of fusion devices and good knowledge of the basic functions of ITER machine and its components would be advantageous;
- Nuclear analysis tools: substantial experience using nuclear analysis codes, such as radiation transport codes (Monte Carlo and Discrete ordinate methods and other simpler evaluation codes), activation calculation code, and nuclear data processing code;
- CAD conversion tools (such as Mc CAD, Super MC, ATTILA...) for radiation codes and viewer codes (such as Space claim) to analyse radiation transport input;
- Quality management: knowledge of requirements for international quality standards (both management and product) methods and practices;
- Quality control: verify compliance of all applicable requirements and regulations;
- Reporting, follow-up, and management of actions: summarize and communicate in writing on QA matters; record, check and ensure implementation based on evidence;
- French regulations and codes and standards for radiation safety would be advantageous;
- Coordination of R&D activities within a large and complex international project;
- Knowledge of super computer, cluster machines to perform complex calculation of massive radiation transport model.

- **Behavioral Competencies:**

- Collaborates: Ability to facilitate dialogue with a wide variety of contributors and stakeholders;
- Communicates 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 define 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.