

# Job Title: Section Leader, Neutral Beam IO0679

Requisition ID **6563** - Posted - (France, 13067 St Paul Lez Durance Cedex) - **Managerial** - **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:** 18/09/2022

**Domain:** Engineering Domain

**Department:** Engineering Design Department

**Division:** Heating & Current Drive Division

**Section:** Neutral Beam Section

**Job Family:** Line Management and Group Leaders

**Job Role:** Section Leader

**Job Grade:** P5

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

**Contract duration:** Up to 5 years

## **Purpose**

As the Neutral Beam (NB) Section Leader, you will lead the NB team and all activities related to the NB heating and current drive injectors and the diagnostic NB injector. This will include execution of procurement contract and coordination of the planning, schedule, technical control, direction and design of the R&D activities for the ITER NB system. Additionally, you will manage the Neutral Beam Test Facility (NBTF) design, manufacture and testing with the Domestic Agencies (DA), which ensures that the NBTF allows comprehensive risk mitigation to the ITER NB systems.

## **Background**

The ITER Neutral Beam systems consists of two Heating Neutral Beams (HNB) and one Diagnostic Neutral Beam, (DNB). Each HNB provides 16.5MW of heating power and current drive to the ITER plasmas through neutral beam injection generated from negative ion beams accelerated to 1MV and neutralized in a gas target. The DNB operates on the same principle but is used for charge exchange spectroscopy and based on negative ions accelerated to 100kV. The success of the injectors for ITER depends largely on the success of the Neutral Beam Test Facility, (NBTF), based in Padua, where first of a kind test articles of the injectors are manufactured and tested to demonstrate the ITER performance, paving the way for the ITER NB system. The HNBs and DNB will be operational in Pre-Fusion-Power-Operation-II (PFPO-2) following a staged installation and commissioning phase which commences prior to PFPO-1. This post covers the management of the IO NB section who in collaboration with the Domestic

Agencies (DA) from JADA, EUDA and INDA procure the components, coordinate the research and lessons learnt from the NBTF and directs the NB program ensuring its success for the ITER project.

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

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- Supervises and directs the NB's activities, managing the contracts and resources allocated to the Section;
- Provides effective leadership for the Section ensuring team members are motivated and constantly developing their skills and experience;
- Ensures the successful realization of the NBTF and NB system;
- Gains and sustains a thorough knowledge of the ITER NB system, all associated technology and interfaces;
- Manages implementation of the NB system and associated technologies in ITER;
- Promotes the development and upgrade of the NB systems;
- Ensures compliance with the interfaces to the NB systems;
- Coordinates the R&D, in particular the NBTF activities carried out for the ITER NB systems both in the ITER Organization (IO), in Padua and in the DAs;
- Manages the installation activities for the system ensuring the preparation of the engineering documentation with in the team for the construction team;
- Coordinates the commissioning and operation activities for the NB system, liaising closely with the science and operation department;
- Manages ITER task agreements, interface documentation and procurement arrangement documentation;
- Keeps abreast of worldwide developments in NB injection relevant technology;
- Disperses the relevant information through publications and conference presentations;
- Supports the execution of the Strategic Management Plan and the Detailed Work Schedules defined by the Organization; executes and delivers work consistent with the budget of the Section and contributes to the staffing of the Section;
- 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.

### **Measure of Effectiveness**

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- Provides an efficient leadership to the staff of the section;
- Ensures the NB systems design and implementation progresses at a satisfactory rate to meet the project safety, quality, cost and schedule requirements;
- Ensures that effective R&D or design work is carried out;
- Builds team spirit in the NB section and maintains good relations with the interfacing systems' teams;
- Ensures good communication and collaboration with the procuring DAs;
- Maximizes human capital and people's commitment to achieving the IO goals;
- Provides leadership in safety.

### **Experience & Profile**

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- **Professional Experience:**
  - Minimum 10 years' experience in managing the design of high power NB systems, or a technical scope of similar complexity within complex international environments or construction/engineering projects.
- **Education:**
  - Master's degree or higher or equivalent in Physics or Engineering or a related 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:**
  - Specialized Domains of Expertise (NB Systems): Knowledge of NB injector physics or engineering, including extensive experience in liaising with NB experts;
  - Project and Engineering Management: Ability to define reporting and control requirements, analyze and conclude on overall project status, define and decide actions for recovery with full transparency and report to highest levels of stakeholders of the ITER Project
  - Team Building and Management: providing leadership, work direction and ensuring development of competencies for a multicultural team, including coaching team members and developing their competencies;
  - Interface Management (identifying, resolving and maintaining technical and functional interfaces);
  - Problem Solving: assesses problems, identifies root causes and reaches practical solutions in a consistent way to reach project objectives.
  - Ability to write and revise technical reports, documentation and project plans;
  - Manufacturing and operational experience of NB systems is an advantage;
  - Knowledge of negative ion beam production is considered an advantage.
- **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/define 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.