

## Job Title: Thermal Shield Technician IO0505

Req ID **1840** - Posted **14/08/2020** - (France, 13067 St Paul Lez Durance Cedex) - **Construction and Installation - 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:** 27/09/2020

**Domain:** Construction

**Department:** Machine Construction

**Division:** Sector Modules Delivery & Assembly

**Section:** TF Coil

**Job Family:** Project Engineering

**Job Role:** Coordinating Technician Engineer - Early Career

**Job Grade:** G5

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

**Contract duration:** Up to 5 years

### **Purpose**

As a Thermal Shield Technician, you will be responsible for coordinating and supporting the on-site installation and assembly activities of the thermal shield (TS) and related components. You will participate in inspections and site acceptance tests (SAT), in addition to preparing technical documents, tools and procedures for the TS installation and integration into tokamak sectors.

### **Background**

The role of ITER thermal shield (TS) is to minimize the radiation heat load from the warm components such as vacuum vessel and cryostat to magnet operating at 4.5K. The TS consists of vacuum vessel thermal shield, cryostat thermal shield and support thermal shield. The main material is 304LN, and DN8 cooling pipes are welded on the panel and pressurized helium gas

flows inside the cooling pipes. The inlet temperature of helium is 80K. Today these components are almost all manufactured and being delivered to IO for assembly.

### Major Duties/Roles & Responsibilities

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- Coordinates the on-site assembly of the thermal shield;
- Participates in inspections and SAT of the TS and related components;
- Actively supports the setup of installation and inspection plans in accordance with Quality Assurance/Quality Control (QA/QC);
- Supports document reviews when provided them by the assembly contractor;
- Assures the qualification of processes related to pipe welding and non-destructive examination (NDE) as well as Helium (He) leak tightness;
- Supports the preparation of engineering documentation and tooling for the thermal shield assembly;
- Supports the resolution of technical issues related to the thermal shield manufacturing (NCR resolution), and issuing of assembly field change requests (FCR)
- Acts as the main interface between TS Group and IO Logistics in areas of component tagging, creation of Bill of Materials, materiel handling in and out of warehouse in support of construction, and component transport on-site during assembly;
- May be required to work outside ITER Organization reference working hours, including nights, weekends and public holidays; for this car driving license is mandatory
- May be requested to be part of any of the project/construction teams and to perform other duties in support of the project.

### Measure of Effectiveness

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- Establishes preservation and storage requirements for thermal shield components, and monitors their compliance during the assembly phase;
- Establishes a solid SAT plan and executes it in a timely manner;
- Contributes efficiently to the quality control and supervision of the assembly activities;
- Contributes efficiently to the assembly activities of TS components in a timely manner and within defined costs;
- Maintains an efficient working relationship with industrial partners;
- Develops and maintains accurate, coherent, comprehensive, and understandable assembly documentation within the defined schedule;
- Communicates effectively and professionally with all internal and external stakeholders.

### Experience & Profile

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- **Professional Experience:**
  - At least 7 years' experience working as technician in mechanical engineering field of design, engineering, manufacturing and installation of the mechanical, nuclear, or cryogenic components.
- **Education:**
  - Bachelor's degree or equivalent in Mechanical Engineering field or other relevant discipline;
  - The required education degree may be substituted by technical training or extensive professional experience involving similar work responsibilities and/or additional training certificates in relevant domains.
- **Language requirements:**
  - Fluent in English (written and spoken).
  - French of intermediate level (spoken) is advantageous in order to communicate with assembly contractor technicians.

- ***Technical Competencies and Demonstrated Experience in:***
  - Writing manufacturing, inspection and installation procedures and ensuring their correct implementations within an international environment;
  - Acceptance testing and commissioning of pipe installation including bending, GTAW welding, NDE, and He leak test;
  - Being familiar with metrology and quality assurance/quality control standards;
  - Coordination of large component fabrication or construction site works;
  - Heavy component rigging and lifting would be an advantage;
  - Assembly of large/heavy components and structures would be 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 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.