

Job Title: Water Treatment Plant Engineer IO10445

Requisition ID **3600** - Posted **31/01/2021** - (France, 13067 St Paul Lez Durance Cedex) - **Machine Operations - 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: 14/03/2021

Domain: Science & Operation

Department: Science, Controls & Operation

Division: Operations

Section: Not Applicable

Job Family: Project Engineering

Job Role: Engineer - 2

Job Grade: P3

Language requirements: Fluent in English (written & spoken)

Contract duration: Up to 5 years

Purpose

As a Water Treatment Plant Engineer, you will be responsible for the management of the water chemistry of fluid systems (cooling water systems, nuclear steam supply systems, the heat rejection system, the cryogenic fluid production facility, and the demineralized water system), the chemistry laboratory and tests of water releases. You will perform calculations, analysis, propose and review water treatment strategies in order to prevent corrosion and to enable the safe, efficient and reliable operation of the facilities. You will also be responsible for supervising the laboratory's operation. Within the Operations Division, you will be strongly involved in the commissioning, operation and design validation of fluid systems chemistry.

Background information:

The Operations Division is responsible for developing plans and procedures for implementation of commissioning, operation and maintenance work processes of the ITER Tokamak and plant systems. Fluid systems include the primary and secondary cooling water systems, the heat rejection system, the cryogenic fluid production facility, and the demineralized water system.

Major Duties/Responsibilities

- Acts as Technical Responsible Officer for all aspects related to water chemistry and associated material issues, including corrosion management;
- Establishes and operates the chemistry laboratory and organisation;
- Issues chemistry related operational documentation including guidelines, safety standards, technical specifications, sampling and analysis procedures;
- Ensures the safe, reliable and efficient implementation of a chemistry monitoring strategy for the commissioning and operation of all the fluid systems;
- Develops the chemistry and laboratory quality assurance documentation;
- Plans, authorizes and supervises chemistry activities to provide analysis, reviews, sampling, and/or trending of data on environmental and operational conditions of the fluid systems and water releases;
- Manages maintenance, calibration, and troubleshooting plan for analytical chemistry instrumentation and lab equipment.
- Provides technical and analytical support, to all stakeholders, for water, chemical and environmental samples;
- Provides evaluations of the chemistry performance of the project to the Operations Department Head and other stakeholders;
- 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, week-ends and public holidays.

Measure of Effectiveness

- Ensures the timely, reliable and efficient analysis and monitoring of the chemistry of all fluid systems in order to achieve required performance, system reliability and availability of the service for clients at optimized costs;
- Ensures that all chemistry activities comply with the regulations, including occupational health and safety and nuclear safety and environmental protection;
- Contributes to a safe working environment by ensuring all activities are properly authorised and tracked, in addition to performing some internal inspections;
- Promotes continuous quality monitoring and improvement on projects, in addition to strictly monitoring quality standards and practices.
- Maintains current knowledge of specific French Regulations pertaining to the operation of industrial and nuclear facilities relative to chemistry and environment, in close relation with Safety and Quality Department.

Experience & Profile

- **Professional Experience:**
 - At least 8 years' experience being responsible for the chemical control of fluids during commissioning and the operation of a nuclear power plant or other large scale facility.
- **Education:**
 - Master's Degree or equivalent in Chemical Engineering or similar relevant technical degree;

- 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);
 - Knowledge of French would be advantageous.
- ***Technical Competencies and Demonstrated Experience in:***
 - Specialized Domains of Work/Technical Expertise (fluid systems):
 - The processes and chemistry management of fluid systems such as cooling water systems, nuclear steam supply systems;
 - The use, application and compliance with quality and safety standards and regulations (i.e. French and European);
 - The coordination of technical teams working on fluids systems;
 - Delivery and Operations Execution (execute tasks with consistency, self-testing and feedback, adapting to changing contexts):
 - Developing processes for chemical control and analysis in a context of commissioning and operation of a nuclear power plant;
 - Managing interfaces;
 - Project Management and problem Solving (Reporting & control requirements, identify root causes and reach practical solutions):
 - Analysing and determining root cause of problems, interacting with stakeholders to find and implement solutions based on technical expertise in chemistry;
 - Performing tasks to quality, within cost and schedule, reporting on progress and issues in a timely manner.
- ***Behavioral Competencies:***
 - Acts proactively and with a high level of autonomy;
 - 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.