

TITLE: Tritium Plant System Engineer		CEP-085
REPORTS TO LINE MANAGER: Leader of Tritium Plant Section, Fuel Cycle Engineering Division, Department for Central Engineering and Plant Support		
DIRECT EMPLOYMENT: NOT REQUIRED		GRADE RANGE: P3-P4
Date Written: July 2008	Date Revised:	Date Revised:

Purpose:

A nuclear physicist or chemical scientist / engineer is required to be responsible for integration of the ITER fuel cycle, which includes tritium plant, fuelling system and vacuum pumping system, integration of the process controls and control of tritium inventories.

Major Duties/Responsibilities:

- Reviews interfaces within the ITER fuel cycle and with outside systems, managing integrity and consistency of the fuel cycle design;
- Be responsible for the process control integration within the Tritium Plant (TP) and its interface with CODAC;
- Manages interfaces between the tritium processing systems and with fuelling and vacuum pumping;
- Implements measures for tritium inventory control;
- Be responsible for the TP process control procurement package, which includes preparation of a specific System Requirements Document, functional specifications and other documentation;
- Be responsible for the TP process control procurement arrangement, which includes technical specifications for tender, tender documentations, managing contracts for system manufacturing, installation and testing;
- Develops and establishes procurement and installation schedules for process control equipment in the TP;
- Provides support in the licensing activities and assessment of safety related to tritium inventory control;
- Maintains a strong commitment to the implementation and perpetuation of the ITER safety program, values and ethics.

Qualifications and Experience:

- **Education:** University Degree in Nuclear Technology, Physics or Chemical Engineering;
- **Experience:** At least 5 years' experience in R&D, design, integration, commissioning and operation of tritium handling equipment and facilities;
 - Proven experience in large project integration through all phases, i.e. conceptual and detailed design, manufacturing, installation and integration, scheduling of installation and commissioning;
 - Extended, wide range practical experience in tritium handling and in tritium technologies;

- Deep knowledge and extended practical experience with cryogenic, high vacuum and pumping technologies;
- Significant experience in safe handling of tritium and contaminated materials typical in the area of fusion technology;
- Good understanding of the behavior of hydrogen isotopes in materials used in fusion applications;
- Experience in managing contracts;
- Experience in working in an international environment and ability to co-operate and work as part of a team;
- **Language requirements:** Good active and passive knowledge of written and spoken English.

Work Direction and Interfaces:

- This position reports to the Tritium Plant Section Leader of the Fuel Cycle Engineering Division (FCD);
- Close co-operation with other groups within FCD is required along with the workflows of the Tritium Plant Section. Main interfaces outside ITER are with the Domestic Agencies (DA) having Tritium Plant procurement packages and with the industry delivering the control system.

Authority/Approval Levels:

This position has authority and approval levels generally defined by the Leader of the Tritium Plant Section for his/her scope of work.

Measures of Effectiveness:

- Successfully supports ITER Tritium Plant design and interface with other systems of the fuel cycle;
- Provides within the set time limits inputs to the installation and commissioning of the plant;
- Successfully communicates with the Tritium Plant Section and other groups in the Fuel Cycle Division and the DAs.