

TITLE: Vacuum Leak Technical Engineer		CEP-069
REPORTS TO LINE MANAGER: Vacuum Pumping Group Leader; Department of Central Engineering and Plant Support		
GRADE: G4-G5		
Date Written: July 2007	Date Revised:	Date Revised:

Purpose:

To support the analysis of the many and complex ITER vacuum systems and specify and schedule vacuum leak testing in assembly to ensure a low risk of construction leaks. To give expert advice to designers of all systems for construction testability. To support specification of the operational of leak detection / localisation concepts and equipment.

Major Duties/Responsibilities:

During the initial period of assignment, the successful candidate shall have the necessary expertise and skills to take several responsibilities among those listed below. When new staff will be assigned to the Vacuum Group duties and responsibility will be reviewed:-

- Provide practical input to many design and specification activities within the ITER Vacuum Group.
- To determine and recommend leak testing methods and procedures for the ITER assembly.
- Compile resourced assembly leak test procedures for all requisite systems and components as input data to the Integrated Project Schedule and during assembly to implement the leak tests in concert with the Schedule.
- Manage support contract in the area of leak detection with industry.
- Specifying segmentation to localise leaks with a minimum loss of machine availability.
- Participate in the design of remote leak test detection, localisation and repair tools for use in and out of the vacuum vessel including specification of all functions needed from the remote handling interface.
- Work in support of designers of systems with leak potential to minimise the occurrence probability and safety, investment protection and availability consequences of leaks in their systems.

Qualifications/ Experience Required:

- Minimum of a recognized engineering apprenticeship and higher educational studies or equivalent.
- At least 10 years practical engineering experience including working in a complex high vacuum environment ideally with tokamak experience.

- At least 5 years dealing with construction of complex vacuum systems.
- Good practical knowledge of leak testing.
- Good knowledge of fabrication and welding techniques.
- Experience of working with demanding QA standards including standards covering pressure equipment directives.
- Experience of working with tritium or in a nuclear environment.(will be advantageous)
- Good communication skills in written and spoken English.
- Proven ability to work effectively in a team and a multi-cultural environment.

Work Direction and Interfaces:

Reports to the Vacuum Pumping Group Leader in the Central Engineering and Plant Support Department.

Authority/Approval Levels:

Has authority and approval levels generally defined by the DDG for his/her scope of work.

Measures of Effectiveness:

- Successfully supports the development of methods, procedures and schedules for the ITER construction leak testing.
- Successfully support the activities of the Vacuum pumping Group as assigned.
- Establishes the leak detection and localisation facilities required at the ITER site.
- Assists Participant Teams in successfully meeting the ITER requirements for component leak tests.