TITLE: Vacuum Design Engineer		CEP-086
REPORTS TO LINE MANAGER: Leader of Vacuum Pumping 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:
To improve the design and integration work of the ITER vacuum pumping and leak detection systems which are part of one of the largest vacuum systems ever to be built. To participate in the production of procurement arrangements for vacuum procurements. To plan and prepare for the installation and commissioning of vacuum-related hardware.

Major Duties/Responsibilities:

During the initial period of assignment, the successful candidate shall have the necessary expertise and skills to take several functions among those listed below. In future, and as the Vacuum Group develops, duties and responsibility will be reviewed:

- Designs and integrates service and auxiliary vacuum pumping systems in accordance with relevant codes and standards;
- Develops designs for high integrity vacuum and tritium containment components to be used across the project;
- Provides assistance to Domestic Agencies and other ITER sections achieving vacuum requirements as defined in the ITER Vacuum Handbook;
- Participates in vacuum R&D required to complete the design of vacuum systems;
- Participates in the writing of procurement specifications, for the procurement of vacuum pumps and vacuum related components and under the responsibility of the Vacuum Group;
- Develops the design of specific vacuum components for Remote Handling compatibility;
- Participates in the design review process of ITER systems with a vacuum interface;
- Monitors the progress of vacuum design work in the ITER Domestic Agencies;
- Maintains a strong commitment to the implementation and perpetuation of the ITER safety program, values and ethics.

Qualifications and Experience:

- **Education**: at least a University first Degree in Engineering (or equivalent);
- **Experience**: At least 5 year's (post-graduate) experience with a minimum of 5 years covering large complex engineering projects. Longer relevant experience would be an advantage;
- Good knowledge of high vacuum, vacuum pumping, gas dynamics and cryogenics;

- Significant experience of working with draftsmen to develop designs on CAD systems;
- Good knowledge of various vacuum sealing techniques, including welding techniques and design;
- Involvement in manufacturing contracts for complex fabrications;
- Experience of designing in a nuclear environment or working with hydrogen isotopes would be an advantage;
- Strong analytical skills;
- Proven ability to work effectively in a team and in a multi-cultural environment;
- **Language Requirements**: Good communication skills in written and spoken English.

Work Direction and Interfaces: Reports to the Vacuum Section Leader

Authority / Approval Levels:
This position has authority and approval levels generally defined by the Vacuum Section Leader for his/her scope of work.

Measures of Effectiveness:
- Successfully implements guidelines and direction received from the Section Leader, DDG and the ITER top management;
- Successfully interfaces between ITER divisions and Domestic Agencies and maintains good communications;
- Successfully provides engineering support for the project;
- Successfully completes the tasks assigned under Major Duties / Responsibilities above.