| Title: Diagnostic Technical Officer                                                                   |            |                    | CHD-036       |
|-------------------------------------------------------------------------------------------------------|------------|--------------------|---------------|
| REPORTS TO LINE MANAGER: Head of Diagnostics Division, Department for CODAC&IT, H&CD, and Diagnostics |            |                    |               |
| DIRECT EMPLOYMENT:  NOT REQUIRED                                                                      |            | GRADE RANGE: G5-G6 |               |
| <b>DATE WRITTEN:</b> 28 January, 2008                                                                 | DATE REVIS | SED:               | DATE REVISED: |

# **Purpose:**

Assist in the technical aspects of the implementation of the ITER Diagnostic System. Draw up technical specifications for some of the components of the Diagnostic System and supervise their procurement and installation at ITER. Support the Division Head in all matters relating to the implementation of ITER diagnostics.

### **Major Duties/Responsibilities:**

- Assists with the design, specification, procurement and installation of parts of the ITER Diagnostic Systems, especially those parts to be provided by the ITER Organization, for example ex-vessel electrical equipment, cabling and the diagnostic windows; takes responsibility for some of these systems.
- Develops some of the interfaces of the diagnostics system, especially the interfaces with diagnostic transmission lines and the ITER buildings.
- Assists in the specification and provision of services to the diagnostics system, such as electrical power and vacuum.
- Assists in the design of an optimum layout of the diagnostic systems in the Diagnostic Building.
- Assists in the development of a plan for the installation of the diagnostic subsystems.
- Assists in the preparation for the installation of the diagnostic systems in ITER.
- Shows a strong commitment to the ITER safety program and enforces it through individual behaviour and work organisation.
- Maintains a strong commitment to the implementation and communication of ITER goals and ethics.

### **Qualifications Required:**

- Training and qualifications to professional technician level (first degree level).
- Experience with high vacuum systems, low power electrical systems, project planning techniques, control systems, procurement, project engineering and QA is required.
- At least 5 years experience in a project of similar technical complexity to ITER.

- Familiarity with aspects of mechanical and/or electrical engineering design for tokamak diagnostic systems, such as optical engineering, vacuum systems, microwave and cabled electrical transmission, water cooling systems and mechanical handling systems, would be an advantage.
- Excellent command of written and spoken English.

#### **Work Direction and Interfaces:**

• Reports to the Division Head for Diagnostics.

# **Authority/Approval Levels:**

• Has authority and approval levels defined by the Division Head for his/her scope of work.

### **Measures of Effectiveness:**

- Successfully draws up the specifications for allocated parts of the diagnostic system.
- Successfully supervises the procurement and installation of allocated parts of the ITER Diagnostic System.
- Successfully designs some of the interfaces of the diagnostic system.
- Successfully draws up the specification and manages the provision of services to the diagnostics system such as electrical power and vacuum.
- Successfully supports the diagnostic needs of the project.