

Title: Senior Technical Officer for Diagnostics, CODAC&IT, H&CD, and Diagnostics / Diagnostics Division		CHD-020
REPORTS TO LINE MANAGER: Head of Diagnostics Division		
DIRECT EMPLOYMENT: NOT REQUIRED	GRADE RANGE: P4 – P5	
Date Written: 12 June 2007	Date Revised:	Date Revised:

Purpose: Support the Division Head in all matters relating to the implementation of ITER diagnostics. Develop the designs of diagnostic systems by personal contribution and by specifying, monitoring and coordinating work in the laboratories and institutes of the ITER Partners, including any relevant supporting R&D, with emphasis on systems that diagnose the products of the fusion reactions especially the neutrons. Develop procurement packages and manage scope, schedule and cost of procurement of some of the diagnostic systems and supporting hardware.

Major Duties/Responsibilities:

- Responsible for:
 - providing expertise on diagnostic systems, in particular on systems that diagnose the products of the fusion reactions especially the neutrons;
 - specifying and assessing neutronics calculations;
 - designing interfaces of diagnostic systems, especially the fusion product and neutron systems with the tokamak;
 - integrating and improving the design, as required, of selected in-vessel diagnostic components;
 - specifying and monitoring R&D packages;
 - organizing and monitoring detailed design reviews;
 - liaising with ongoing diagnostic design and integration activities in the participant Parties.
- Supports the DH in all matters related to the Diagnostic system for ITER construction.
- Develops the designs of diagnostic systems by personal contribution and by specifying, monitoring and coordinating work in the laboratories and institutes of the ITER Partners, including any relevant supporting R&D, with emphasis on diagnostics engineering.
- Assist with the preparation of the relevant procurement packages.
- Assists with the management of the scope, schedule and cost of procurement of the associated diagnostic systems and supporting hardware through the specified procurement packages.
- Assists with the preparation of the interface documentation and keeping it up to date.
- Assists with the preparations for the installation of the diagnostic systems on ITER.

- Reports variances on all technical, cost and schedule aspects immediately to the DH.
- Supports effective risk identification and management.
- Shows strong commitment to the ITER safety program and enforces it through individual behavior and in his/her organization.
- Maintains a strong commitment to the implementation and perpetuation of ITER values and ethics.

Qualifications Required:

- PhD or equivalent working experience in a relevant area.
- At least fifteen years of further experience in fusion research.
- Expertise in design and integration of diagnostic systems in fusion research facilities.
- Expertise of fusion product diagnostic systems, and especially neutron diagnostics, in tokamak experiments with Tritium.
- Good knowledge of ITER Neutron and Divertor diagnostic systems.
- Knowledge of the main ITER systems that interface with diagnostics, such as the vacuum vessel and divertor, would be an advantage.
- Experience with operating diagnostics in Tritium experimental campaigns.
- Experience with accelerator-based neutron facilities and related diagnostics.
- Metrology and calibration experience in neutron measurements.
- Demonstrated ability to resolving related integration/interface issues with other ITER systems.
- Demonstrated technical and managerial leadership.
- Demonstrated ability to work part of a multicultural scientific team for several years.
- Experience of working in an international environment.
- Experience in effective QA management and implementation would be an advantage.

Work Direction and Interfaces:

Reports to the Division Head.

Authority/Approval Levels:

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

Measures of Effectiveness:

Successfully develops the design of diagnostic systems.

Successfully develops the design of interfaces of diagnostic components with the main tokamak components.

Successfully prepares technical specifications of allocated diagnostic procurement packages.

Successfully manages the procurement of the diagnostics.

Successfully develops cost effective installation and testing plans.

Successfully maintains effective communications with all parties delivering subsystems for the diagnostic systems.

Successfully supports the diagnostics need of the project.

