

TITLE: Coil Instrumentation Engineer		TKM-053
REPORTS TO LINE MANAGER: CS and Correction Coils Section Leader; Tokamak Department		
DIRECT EMPLOYMENT: NOT REQUIRED		GRADE RANGE: P3-P4
DATE WRITTEN: October, 2006	DATE REVISED: AUGUST 31, 2007	DATE REVISED:

Purpose:

Responsible for the instrumentation design, definition and procurement for the ITER coils and auxiliary systems

Major Duties/Responsibilities:

- RO for the ITER magnet instrumentation procurement
- Responsible for the design of coil instrumentation systems (voltage taps, thermometers, flow meters, He pressure measurement, quench detection systems (and their connection wiring), cabling in the feeders and interfaces to the instrumentation panels adjacent to the CTBs
- Provide assistance to the division and group leaders in the definition of the coil instrumentation systems
- Defines calibration methods for the instrumentation
- Responsible for preparing reliability assessments for the instrumentation and definition of adequate back up capability
- Provide design assistance to other groups, in integrating the instrumentation into the coil design
- Responsible for agreeing instrumentation costs and maintaining these during procurement
- Responsible for defining and maintaining a detailed schedule for the procurement
- Responsible for the definition of procurement specifications for the instrumentation, carrying out a call for tender and placing procurement contracts
- Responsible for following the instrumentation procurement and ensuring timely delivery to the PTs during coil fabrication
- Responsible for defining and monitoring quality control tests on the instrumentation after installation
- Responsible for providing calibration data to the Iter control groups

Qualifications and Experience:

- University degree (DipIng or Bachelors) in engineering (mechanical or electrical)
- At least 15 years post graduate experience in cryogenic instrumentation (installation and use)
- Familiarity with magnetic field coil design and superconductivity

- Knowledge of high voltage electrical problems in cryogenic vacuum systems
- Ability to communicate clearly and write technical reports and specifications in English.

Work Direction and Interfaces:

Report to the CS & CC Section leader. Interface extensively with other groups in the magnet division. Interfaces with other departments as required by the magnet design, in particular to the CAD office and control groups. Interface with the Field Teams and their industries regarding delivery and installation of the instrumentation.

Authority/Approval Levels:

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

Measures of Effectiveness:

Complete definition of instrumentation. Carry out a successful procurement, on time and within budget.
Successful functioning of instrumentation during coil commissioning.