

TITLE: Mechanical Design Coordinator - Cryostat and Thermal Shield		CEP-094
REPORTS TO LINE MANAGER: Leader of Mechanical Design Section, Design Office, Department for Central Engineering and Plant Support		
DIRECT EMPLOYMENT: REQUIRED		GRADE RANGE: G4-G5
Date Written: July, 2008	Date Revised:	Date Revised:

Purpose:

To carry out the Computer-Aided Design (CAD) mechanical design and maintain associated CAD data of the ITER Cryostat and Thermal Shield systems over the entire life-cycle (from design to machine operation) under the instruction of the relevant Responsible Officer(s). To supervise the CAD design activities performed by Designers at the ITER Organization and by outside Contributors.

Major Duties/Responsibilities:

- Be responsible for the quality of the CAD data of the Cryostat and Thermal Shield;
- Performs design tasks under the guidance of the relevant Responsible Officer:
 - Researches solutions;
 - Designs and develops solid modelling;
 - Prepares assembly drawings, drawings and bill-of-materials;
 - Completes design integration tasks (interfaces, digital mock-ups, fitting simulation, clash detection reports);
 - Develops catalogue items;
- Performs coordination and development tasks as Design Coordinator under the guidance of the relevant Responsible Officer(s):
 - Prepares the draft Design Work Orders;
 - Follows up the mechanical design (coordination of several Designers; interface analysis and management; data structure and meta-data checking into the database; CAD data-change management and tracking; Product-Breakdown-Structure implementation);
 - Supports the Responsible Officer in the interactions with External Contributors regarding CAD activities;
 - Reporting
- Performs coordination and development tasks as Design Coordinator under the instructions of the Mechanical Design Section Leader:
 - Actively contributes to the checking of the CAD data (Cursory and Approved); the preparation of the Design Integration – Design Office meetings; the remote design collaboration schemes and exchanges of CAD data with ITER Partners (export, import, checking, interactions with the ITER Partners, Suppliers, supporting engineering companies / sub-contractors); the monitoring of the resources and schedules; the Design Office QA, implementation (CAD Work and CAD Data Procedures, CAD Manual, processes and procedure); the

- highlighting of miss-functioning; the DO library and auxiliary DO-related activities;
 - Actively contributes to pilot activities to assess, develop and deploy new software and migration; training; coaching; participation in the development of methodologies; guides and CAD Manual sections and various DO-related tasks.
- Maintains a strong commitment to the implementation and perpetuation of the ITER safety program, values and ethics.

Qualifications and Experience:

- **Education:** Technical College Diploma or equivalent in Mechanical Engineering and/or Computer-Aided Design or equivalent;
- **Experience:** A minimum of 7 years' experience (including experience as Leading Designer) in a Mechanical Design Office in a multi-disciplinary project and preferably performed in a remote design collaboration manner;
- A minimum of 3 years' in the implementation of engineering activities: requirement definition; conceptual, pre-detailed and detailed studies; definition of complex interface systems; preliminary sizing; contribution to the development of manufacturing specifications; contract monitoring etc;
- Previous experience in the design of complex structures, preferably in fusion and/or nuclear field and involving large welded and bolted components and structures, support systems, complex interfaces with cooling systems, diagnostics, assembly and remote handling tools would be advantageous;
- Knowledge of thermal, mechanical and hydraulic calculations;
- A minimum of 7 years' experience in design work involving an advanced CAD system, including 3 years with CATIA 5. The experience with ENOVIA LCA - VPM5 is not essential, though experience with previous versions of VPM or with other integrated database systems would be advantageous;
- Demonstrated ability to produce high quality results which have stood the test of being manufactured, tested, installed and commissioned successfully;
- Skills: excellent ability to organize and monitor design activities, good communication skills and ability to work towards predefined goals with a high level of autonomy while sustaining a high working pressure;
- **Language requirements:** High level of written and spoken English.

Work Direction and Interfaces:

- Reports to the Mechanical Design Section Leader of the ITER Design Office
- Interacts on a daily basis with the relevant ITER Component Responsible Officers (in charge of the technical solutions), the Integration Responsible Officers (in charge of the configuration control), Design Office Management and Support Team and Design Coordinators and Designers aiming at the required level of quality and at an efficient development of the design.

Authority/Approval Levels:

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

Measures of Effectiveness:

- Successfully provides an efficient and high quality service to the ITER Design Office;
- Successfully contributes to an effective development of the mechanical design;
- Successfully develops further technical capabilities, flexibility, CAD tool control and team spirit;
- Successfully supports the objectives and interests of the ITER Project;
- Successfully establishes a good collaborative relationship with all involved internal and external organizations.