

TITLE: Design Configuration Control Section Leader		CEP-079
REPORTS TO LINE MANAGER: Head of Design Office, Department for Central Engineering and Plant Support		
DIRECT EMPLOYMENT: NOT REQUIRED		GRADE RANGE: P4-P5
Date Written: July, 2008	Date Revised:	Date Revised:

Purpose:

To support the configuration control of the ITER Computer Aided Design (CAD) data under the guidance and technical responsibility of the associated Responsible Officers; To contribute to the management of the interfaces; To supervise the Design Configuration Control Section; To supervise the Design Office Support Group.

Major Duties/Responsibilities:

- Supports the ITER Design Integration Section and technical Departments:
 - Develops and implements CAD design configuration control, Digital Mock-Ups, CAD design change management and CAD simulation processes in the areas of mechanical and plant design;
 - Manages the space reservations, envelops and interface models (interface skeletons);
 - Manages the configurations, variants and produces reports on the status of the machine technical baseline;
 - Organizes Digital Mock-Up reviews, configuration control analysis (clash detection, fitting simulation, assembly and maintenance simulation), the production of top level assembly and configuration drawings and Bill-of-Materials;
 - Contributes to the solving of integration issues;
 - Supervises the Assembly and Maintenance Simulations (involving the software DELMIA);
 - Interacts on a daily basis with the relevant ITER Component Responsible Officers (in charge of technical solutions) and Integration Responsible Officers (in charge of the configuration control);
 - Deals with a range of design disciplines, such as mechanical design, plant design, machine assembly and maintenance simulation, interfaces with analysts (coherence between CAD and analysis models).
- Manages the Design Configuration / Control Section of Design Office:
 - Be responsible for maintaining the high-quality standards of the design processes conducted by the ITER Team;
 - Supervises the Configuration and Simulation Control Design Coordinators and Designers;

- Be responsible for the distribution of the resources in relation with the project priorities;
- Negotiates and supervises contracts with external design companies in the area of design configuration control and simulation, and with DO software Editors and Support companies;
- Supervises the Design Office Support Group comprising:
 - The PLM Solution Coordinator;
 - The CAD Manual and Processes Coordinator;
 - The Design Office Collaboration Coordinator;
 - The Design Office Collaboration Administration Engineer;
 - The CAD and PLM Development and Customization Coordinator;
 - The Equipment and Systems Catalogue Development Coordinator;
 - The CAD Quality Coordinator.
- Performs Design Office-related coordination and development tasks:
 - Contributes to the ITER remote design collaboration schemes;
 - Actively contributes to the checking of the CAD data (Cursory and Approved); preparation of the Design Integration – Design Office meetings; the remote design collaboration schemes and the exchanges of CAD data with ITER Partners (export, import, checking, interactions with the ITER Partners, Suppliers, supporting engineering companies / sub-contractors); the monitoring of 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 Design Office 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 Engineering or higher diploma in Mechanical / Process Engineering and/or higher diploma in Computer Aided Design or equivalent.
- **Experience:** A minimum of 10 years' experience including 3 years with a level of responsibility in the Design Office of a multi-disciplinary project / company and preferably performed in a remote design collaboration manner;
- A minimum of 3 years' experience 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;
- Previous experience in the design of complex mechanical components and processes preferably in fusion and/or nuclear field and involving a large number of complex interfaces;

- Knowledge of thermal, mechanical and hydraulic calculations;
- A minimum of 10 years' experience of design work involving advanced CAD systems (3D, drawings and process description), including 3 years with CATIA 5. Experience with ENOVIA LCA - VPM5 and DELMIA is not essential, though experience with previous versions of VPM, or with other integrated database systems and with simulation software would be advantageous;
- The 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 capability of working towards predefined goals with a high level of autonomy while sustaining a high level of pressure.
- **Language requirements:** High level of written and spoken English.

Work Direction and Interfaces:

- Reports to the Head of the Design Office in the Department for Central Engineering & Plant Support;
- Interfaces with all involved departments (DDG's) and divisions, in particular:
 - Interacts on a daily basis with the ITER Project Office Responsible Officers (in charge of the ITER configuration control), the relevant ITER Component Responsible Officers (in charge of the technical solutions) aiming at the required level of quality and efficient development of the design;
 - Maintains frequent communication with other ITER departments and interacts directly with appropriate levels in the Field Team and ITER Parties' Domestic Agencies for all matters of his/her responsibilities.

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 ensures an efficient and high-quality service of the Design Configuration / Control Section to ITER and Das;
- Successfully contributes to an effective management of geometrical interface issues and design collaboration schemes;
- Successfully contributes to the development of the staff: technical capabilities, CAD tools, team spirit;
- Successfully establishes a good collaborative attitude with all involved internal and external organizations.