

IO1177 Magnet Engineer - TKM-006

General information

Job category	Standard
Status	Published
Department	DIP/Directorate for Tokamak
Division	TKM / Magnet Division
Section	TKM / MAG / TF Coil Section

Job description

Main job	Engineering - Mechanics
Title of the position	Magnet Engineer - TKM-006
Job family	Project engineering
Grade	P4
Direct employment	Not required
Purpose	<p>To contribute to the procurement and mechanical/electrical design of the ITER Toroidal Field (TF) coils, in the areas of the TF coil cases, precompression rings, winding packs and radial plates.</p> <p>Is responsible for the design, R&D and qualification testing of the TF winding pack and precompression rings;</p> <p>Develops and updates the design and analysis of the TF winding packs and TF coil cases;</p> <p>Maintains the design and analysis documentation on the TF coils;</p> <p>Maintains the Computer Aided Design (CAD) models and drawings for the TF coils and interfacing structures, ensuring that manufacturing changes are implemented;</p> <p>Manages the magnet CAD drawings and models, interface to the CAD & Design Coordination, ensuring availability and functionality of drawing control within the division;</p> <p>Technical Responsible Officer for the TF winding pack and precompression rings procurement arrangements;</p> <p>Follows and maintains the schedule for the TF coils and Precompression Rings;</p> <p>Is responsible for monitoring the TF winding packs and precompression rings fabrication, ensuring proper application of quality controls;</p> <p>Contributes as technical support within TF section to maintain, document the internal and external interfaces respectively for winding insertion and TF assembly.</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work Breakdown Structure Schedule or Strategic Management Plan;</p> <p>Performs other duties linked to the above purpose upon management request, as necessary;</p> <p>Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.</p>
Main duties / Responsibilities	<p>Reports to the Toroidal Field Coil Section Leader;</p> <p>Interfaces with other groups in the Magnet Division regarding drawing and CAD administration.</p> <p>Interfaces closely with Responsible Officer for TF structure procurement;</p> <p>Interfaces with other Departments as required by the magnet design, in particular to the CAD & Design Coordination Division;</p> <p>Interfaces with the Technical Responsible Officer and their industries regarding fabrication, R&D and distribution of data (documents and CAD models/drawings);</p>
Measures of effectiveness	<p>In response to requests from the Director-General (DG) and/or Director of Tokamak(TKM) Directorate, or proactively, informs the DG/ Director of TKM Directorate of any important and urgent issues that cannot be handled by the concerned line management and may jeopardize the achievement of the Project's objectives.</p> <p>Effective functioning of magnet document and CAD drawing preparation and distribution;</p> <p>Successful qualification of TF winding packs, precompression rings and coil supports;</p> <p>Timely fabrication of rings and supports.</p>

Applicant criteria

Level of study	Master or higher degree
----------------	-------------------------

Diploma	Engineering mechanical or electrical
Level of experience	At least 10 years
Technical experience	At least 10 years' experience in the engineering field; At least 5 years' experience in design, fabrication and operation of superconducting coils; Experience of requirements for design and procurement management in large projects; Experience with magnetic field coil design and superconductivity and/or with electromagnetic effects on structural design would be considered as an advantage; Knowledge of metal forming techniques such as forging, casting, rolling and welding; Familiarity with mechanical design codes and standards such as ASME
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	Basic Project Management experience is required.
Languages	English (Working)