

# IO1190 Magnets-Structural Engineer TKM-113

## 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	Magnets-Structural Engineer TKM-113
Job family	Engineer - 2
Grade	P3
Direct employment	Not required
Purpose	<p>To contribute to the management of procurement arrangements related to Toroidal Field (TF) structures and Magnet Supports. This also includes the engineering support to the TF Section interfaces management activities and related design consolidation.</p>
Main duties / Responsibilities	<p>Is responsible for the monitoring of the fabrication of TF related structures at Domestic Agency (DAs) premises, maintaining the schedule and implementing the quality control program;</p> <p>Assists the Technical Responsible Officer (TRO) in the execution and follow-up of the structure Procurement Arrangements (PA);</p> <p>Gives expertise and provides follow up in welding, steel component fabrication;</p> <p>Contributes to design activities and be responsible for the all interface/integration activities and the follow-up of the procurement packages related to Magnet Supports and TF Coils Structures for the TF coil manufacturing;</p> <p>Ensures interfaces are defined with the supplying DAs and are consistent with the TF system requirements;</p> <p>Performs thermal and structural assessment analysis checks so as to define and verify the design or manufacture;</p> <p>Takes active part in the reviews and monitoring of qualification and production readiness phase activities;</p> <p>Assures implementation of quality control requirements on the procurements, in agreement with all stakeholders/DAs responsible for the procurement;</p> <p>Optimizes the design to minimize fabrication costs while satisfying performance requirements;</p> <p>Participates in the monitoring of the coil case delivery to the winding companies and the insertion of the winding packs into the case;</p> <p>Takes part in TF integration and assembly reviews, including tolerance definition and internal magnet interfaces to the TF winding pack and external supports;</p> <p>Contributes to maintain and document the internal and external interfaces;</p> <p>Oversees updates of the TF ITER Organization Computer Aided Design (CAD) models in line with the suppliers' model updates and review of the related manufacture drawings;</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the 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>
Measures of effectiveness	<p>Reports to Toroidal Field Coil Section Leader;</p> <p>Interfaces with other Sections in the Magnet Division and other Divisions in the Directorate, with other Departments as required by the magnet design, in particular with the CAD &amp; Design Coordination and Assembly &amp; Operations Divisions, with the DAs' technical responsible officers and their industries regarding fabrication;</p> <p>In response to requests from the Director-General 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>

Ensures construction of TF coil structures and Magnet supports within agreed cost and schedule;  
 Completes procurement activities within defined costs and schedule;  
 Ability to work within a team and set achievable objectives;  
 Develops and maintains coherent, comprehensive and understandable documentation;  
 Maintains effective communication within the ITER Organization and other stakeholders.

Project Construction Phase

## Applicant criteria

Level of study	At least Master's Degree or equivalent
Diploma	Mechanical Engineering other relevant discipline
Level of experience	At least 10 years
Technical experience	<p>Experience in the design and manufacture of large mechanical stainless steel components (forming and welding) and/or nuclear devices;</p> <p>Experience in applying the RCC-MR or ASME compliance conventional codes;</p> <p>Good knowledge of metal forming techniques such as forging, casting, rolling and welding;</p> <p>Good knowledge and experience of non-destructive testing (NDT) techniques and applicable codes such as ultrasonic and radiographic inspection methods;</p> <p>Good knowledge of structural design procedures (analysis techniques, structural assessment, design packages);</p> <p>Familiarity with magnetic field coil design and superconductivity.</p>
Project experience	At least 5 years
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
Languages	English (Working)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)