

IO1611 Magnet Workshop and Assembly Engineer - TED-041

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Magnet Division
Section	TED / MAG / TF Coil Section

Job description

Main job	Engineering - Mechanics
Title of the position	Magnet Workshop and Assembly Engineer - TED-041
Job family	Engineer - 2
Grade	P3
Direct employment	Not required
Purpose	<p>To develop the Toroidal Field (TF) coil assembly procedures and specialized tooling.</p> <p>To supervise workshop activities on assembly mock-ups.</p> <p>To follow the qualification of major items of TF assembly tooling.</p> <p>To resolve problems and non-conformities arising during TF magnet production at Domestic Agencies (DAs) and suppliers.</p> <p>To develop TF assembly plan and documentation.</p> <p>To contribute to the Procurement Arrangement (PA) monitoring for magnet and to the development of TF coil commissioning plans.</p>
Main duties / Responsibilities	<p>Assists in maintaining interface between TF coils, structures, feeders and assembly tooling;</p> <p>Reviews TF coil manufacturing drawings, procedures and Quality Assurance (QA)/Quality Control (QC) documents generated by DAs and their suppliers;</p> <p>Reviews manufacturing, quality and test records generated by TF magnet suppliers;</p> <p>Writes technical specifications for procurement, test facilities, mock-ups and testing related to the TF coil and structures activities, and monitors the contract progression;</p> <p>Witnesses critical activities at magnet suppliers;</p> <p>Contributes to problem solving during magnet production and resolution/assessment of non-conformities reports;</p> <p>Develops assembly and inspection plans for TF magnet components;</p> <p>Develops TF assembly procedures;</p> <p>Performs verification, mock-ups and prototyping activities at the Magnet Workshop;</p> <p>Contribute to updates of TF magnet baseline documentation and interface sheets;</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>May be requested to be part of any of the project team dealing with the above activities and perform other duties upon management request;</p> <p>Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.</p> <p>Reports to the TF Section Leader;</p> <p>Interfaces with magnet Procurement Arrangement Technical Responsible Officers (TROs) and Responsible Officers (ROs) in all sections of the Magnet Division.</p> <p>Interfaces with other departments as required by the magnet production, in particular with the CAD Office, the Cryogenic and Electrical Divisions, the Design Office and the Assembly;</p> <p>In response to requests from the Director-General and/or Tokamak Engineering Department Head, or proactively, informs the DG/ Tokamak Engineering Department Head 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>Supports efficiently the magnet Procurement Arrangement monitoring within the defined cost and schedule;</p> <p>Develops manufacturing drawings, monitors manufacturing and QA/QC plan development and</p>

Measures of effectiveness	<p>implementation in a timely manner; Contributes to smooth problem solving and Non-Conformance Report resolutions; Develops the assembly plan and procedure for his/her scope of work.</p>
	Project Construction Phase

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Engineering field
Level of experience	At least 8 years
Technical experience/knowledge	<p>8 years' experience in design, manufacture, assembly and integration of superconducting magnet and cryogenics systems</p> <p>Mechanical, material and electrical knowledge is a plus;</p> <p>Practical experience in assembly work and heavy duty handling of large structure with tight tolerances</p> <p>Familiarity of non-destructive examination techniques such as visual inspection, dye penetrant inspection, helium leak detection, ultrasonic inspection, and radiographic examination of welds and brazes, and applicable codes and standards for the implementation and acceptance criteria</p> <p>Good knowledge in structural, thermo-mechanical and thermo-hydraulic design, analysis and engineering assessment</p> <p>Experience with international codes and standards such as ISO, EN, RCC-MR, ASTM and ASME for construction of pressure equipment and/or nuclear equipment</p> <p>Experience / knowledge in assembly of large components operated at cryogenic temperature and affected by high hydraulic pressure and mechanical loads.</p>
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	<p>Knowledge / experience in high voltage insulation using glass fiber reinforced composite material for cryogenic application and high voltage test of insulation is a plus;</p> <p>Project Management experience is required;</p> <p>Ability to both work in a team and coordinate activities;</p> <p>Ability to communicate clearly and write technical reports and specifications in English.</p>
Languages	English (Fluent)
Others	Good command of the Microsoft Office package.