

# IO1414 Magnet Auxiliaries Structural Specialist TKM-134

## General information

Job category	Standard
Status	Published
Department	DIP/Directorate for Tokamak
Division	TKM / Magnet Division
Section	TKM / MAG / Superconductor Systems and Auxiliaries Section

## Job description

Main job	Engineering - Mechanics
Title of the position	Magnet Auxiliaries Structural Specialist TKM-134
Job family	Coordinating Technician
Grade	G5
Direct employment	Required
Purpose	<p>To perform specialized manufacturing process engineering and mechanical analyses for contributing to the mechanical design and manufacturing of the ITER Magnet Feeders;</p> <p>To review and assist in preparing/updating feeder design, procurement and quality control documents;</p> <p>To contribute to the follow-up of the feeder procurement and assembly activities performed by Domestic Agencies (DAs).</p>
Main duties / Responsibilities	<p>Develops structural engineering and analyses of the magnetic feeders and supports;</p> <p>Participates in the planning of feeders manufacturing and assembly;</p> <p>Provides structural analysis for the interfaces between feeder components and on-site assembly tooling;</p> <p>Performs engineering assessment/analysis of the design changes raised by interfacing IO teams and Domestic Agents;</p> <p>Reviews feeder Procurement Arrangement (PA) manufacturing documents, CAD models, and 2D drawings and contributes to problem-solving;</p> <p>Implements quality control for the execution of the feeder PA (Special notice: long haul regular travel to DA's supplier's premises is required);</p> <p>Monitors and provides engineering reviews &amp; advices for feeders in-factory fabrication and assembly performed by the Domestic Agent's contractor;</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 Superconducting Systems and Auxiliaries Section Leader;</p> <p>Interfaces with members in feeder team and other Sections in the Magnet Division;</p> <p>Interfaces with other Departments as required by the feeder design;</p> <p>Interfaces with the DAs and its industries regarding fabrication;</p> <p>In response to requests from the Director-General and/or the Head of Tokamak Directorate, or proactively, informs the DG/ Head of Tokamak 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>Develops accurate and high standard engineering and structural analyses regarding feeder components and assembly design, and changes of design within the defined timeframe;</p> <p>Interfaces and communicates efficiently with other ITER Directorates, Domestic Agencies, and maintains good relationships;</p> <p>Provides supports to the design, engineering and manufacturing for the project;</p> <p>Effectively contributes to successful value engineered and validated mechanical design of the magnet feeder system;</p> <p>Contributes to the achievement of the project schedules.</p>
	Project construction phase

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## Applicant criteria

Level of study	At least Bachelor's degree or equivalent
Diploma	Mechanical or Electrical engineering
Level of experience	At least 7 years
Technical experience	<p>At least 7 years of experience in engineering in industry or on large construction projects; At least 4 years of experience in engineering design and manufacturing planning of large components, preferably linked to large systems for fusion or other magnet system applications. Experience with engineering design of large bolted and welded structural assembly; Experience with analysis and design optimization of large scale cryogenic / vacuum / electromagnetic components; Experience with static, fatigue, thermo-mechanical, and seismic analyses of structural components preferably with ANSYS; Experience with manufacturing documentation, process planning, quality control, and design change process; Experience in material properties at both room and cryogenic temperatures, and their impact on the design of superconducting magnet auxiliary systems is an advantage; Familiarity with mechanical design codes and standards such as ASME, EN, and ISO is an advantage.</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	
Languages	English (Working)
Specific skills	Computer Aided Design, MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	Finite Element Analysis.