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JOB DETAIL

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Ref IO1778 - 10/10/2016

Mechanical Engineer/Analyst - TED-101

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|---------------------------------------|---|
| Main job | Mechanics |
| Department | TED / Tokamak Engineering Department |
| Division | TED / Magnet Division |
| Section | TED / MAG / Superconductor Systems & Auxiliaries Section |
| Job Family | Engineer - 1 |
| Application Deadline (MM/DD/YYYY) | 11/20/2016 |
| Grade | P2 |
| Direct employment | Not required |
| Purpose | Responsible for the detailed structural, thermal and electromagnetic analysis of the In-Vessel Coils (IVCs) and contributes to the design optimization based on the analysis results. |
| | |

Main duties / -Performs design and analysis of In-Vessel Coil Responsibilities components and assesses performance against design codes/criteria and test results on components;

- -Performs fatigue analysis based on the SN approach and LEFM of coils, feeders, supports;
- -Monitors support contracts related to analysis of IVCs;
- -Performs analysis related to interfaces with other ITER components:
- -Performs analysis related to assembly tolerances of In-Vessel Coil components;
- -Maintains and updates input documentation required for analysis of IVCs;
- -Contributes to the design and to the development of the assembly plan for the IVC;
- -Designs and carries out mechanical testing of IVC components and mock-ups to demonstrate the mechanical performance over the operating life;
- -Documents the analyses with detailed reports;
- -Prepares analysis reports in support of Intermediate and Final Design Reviews; assist in resolution of review chits;
- -Implements quality assurance and quality control of above activities in collaboration with the Central Integration Office;
- -Performs other duties in support of the project schedule; -May be requested to belong to any project team dealing with above activities and perform other duties;
- -Maintains a strong commitment to the implementation and perpetuation of the ITER Safety
- -Reports to the Superconductor Systems & Auxiliaries Section Leader:
- -Works closely with the Technical Responsible Officer for the In-Vessel coil systems;
 -Interacts with other members of the Magnet Division
- and/or other Departments as required by the In-Vessel coil design, in particular with the integration and assembly teams:
- -In response to requests from the Director-General and/or Head of Tokamak Engineering Department (TED), or proactively, informs the DG/ Head of TED 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.

Measures of effectiveness

- -Timely delivery of analysis and corresponding reports;
- -Timely updates of input documentation for analysis;
- -Timely contributions to interface and design review documents;
- -Timely contributions to quality assurance and quality control of in-vessel coil activities.

Project Construction Phase

Level of study Master or equivalent degree

Diploma Mechanical Engineering or other discipline

Level of experience At least 5 years experience/knowledge

Technical -Extensive experience in similar jobs (involving similar work responsibilities) and/or additional training certificates in relevant domains may be considered a reasonable substitute for the required educational degree.

> -At least 5 years' experience in performing structural, thermal and electromagnetic analysis of large welded or bolted components by using ANSYS analysis code and assessing performance against defined design criteria; -Practical experience in CAD and/or engineering/manufacturing drawing production and review;

-Practical experience in production and/or assembly of electro magnets would be an advantage;

-Experience with international codes and standards such as ISO, EN, RCC-MR, ASTM and ASME for construction of pressure equipment and/or nuclear equipment would be an advantage

-Experience in performing fatigue analysis applying the SN approach;

-Experience in LEFM fatigue/fracture assessment would be an advantage;

Social skills Ability to work effectively in a multi-cultural environment Ability to work in a team and to promote team spirit

Specific skills

Ansys

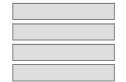
MS Office standard (Word, Excel, PowerPoint, Outlook)

General skills

-Ability to both work in a team and coordinate a group of professionals;

-Ability to communicate clearly and write technical reports and specifications in English;

Languages English (Fluent)



For more information about ITER, visit our web site: http://www.iter.org