

JOB DETAIL

Ref. IO1788 - 11/18/2016

Electromechanical Engineer - PED-072

Main job	Electricity
Department	PED / Plant Engineering Department
Division	PED / Electrical Engineering Division
Section	PED / EED / Coil Power Supply Section
Job Family	Engineer - 2
Application Deadline (MM/DD/YYYY)	12/29/2016
Grade	P3
Direct employment	Not required
Purpose	Responsible for the detailed engineering of the In-Vessel Coil busbars, from design to manufacture and assembly inside the Tokamak building, follow up the writing of technical specifications for the construction of prototypes, contribute to the development of the baseline documentation and assist in the development/implementation of quality assurance and quality control. Special Notice: The purpose of this position is limited to tasks necessary to produce the final design documentation and supporting analyses required to issue the Procurement Arrangement for the In-Vessel Coil busbars. Therefore, the employment contract will have 18 months duration.
Main duties / Responsibilities	-Drafts and follows up the production of the Final Design of the in-vessel coil busbars; -Contributes to the development of the detailed busbar routing inside the Tokamak building, including the final design of mechanical supports and anchoring components; -Contributes to the development of assembly procedures for the in-vessel coil busbars, including joints and supports; -Develops and reviews the manufacturing processes for DC busbar on high voltage insulation, including the electrical contact, and brazed joints, etc.; -Contributes to the writing of technical specifications for manufacturing trials and full scale prototypes; -Develops and implements the required quality assurance and quality control procedures; -Produces the 3D CAD models, and follows up the engineering and interface drawings; -Prepares Intermediate and Final Design documentation; -Performs other duties in support of the project schedule; -May be requested to belong to any project/construction teams and to perform other duties; -Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics. -Reports to the Coil Power Supply Section Leader; -Works closely with the Technical Responsible Officer for the In-Vessel coil busbars; -Interacts with other members of the Electrical Engineering Division and/or other Departments as required by the In-Vessel coil busbar design, in particular with the CAD office, integration and assembly teams; -Interacts with industries regarding fabrication and quality control as requested; -In response to requests from the Director-General and/or Head of Plant Engineering Department (PED), or proactively, informs the DG/ Head of PED 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	-Issues design plan; design description documents and interface sheets within the defined costs & schedule; -Generates accurate CAD models, engineering and assembly drawings; -Draft efficiently assembly plans and of assembly and

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inspection plans;
-Timely & efficient contributions to critical qualification and testing;
-Maintains up to date documentation for the defined scope of work;
-Timely contributions to full-size mock-up trials;
-Implements effectively quality assurance and quality control requirements for the design documentation and specifications of the busbars for the in-vessel coil activities.

Project Construction Phase

Level of study	Master or equivalent degree
Diploma	Electrical Engin. or other relevant discipline
Level of experience	At least 8 years
Technical experience / knowledge	-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 8 years' industrial experience in design, manufacture and assembly of forced cooled electromechanical components for rated current and voltage above 15 kA, 5 kV with bolted and brazed joints is required; -Good experience in CAD and/or engineering/manufacturing drawing production and review; -Proficient industrial manufacturing experience and series production of large electromechanical components fabricated with extruded conductor material and insulated with fiber glass VPI impregnated by epoxy resin is required; -Good knowledge of TIG, MIG welding system; -Good knowledge in non-destructive testing (NDT) techniques including ultrasonic, X-rays and applicable codes;
Social skills	Ability to work effectively in a multi-cultural environment Ability to communicate effectively
Specific skills	Ansys CATIA MS Office standard (Word, Excel, PowerPoint, Outlook)
General skills	-Experience with international codes and standards such as IEC and IEC for construction of large electromechanical components; -Practical experience in structural analysis using ANSYS would be an advantage.
Others	-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)