

JOB DETAIL

Ref. IO1700 - 4/14/2016

Mechanical Engineer TED-055

Main job	Mechanics
Department	TED / Tokamak Engineering Department
Division	TED / Heating & Current Drive Division
Section	TED / HCD / Neutral Beam Section
Job Family	Engineer - 2
Application Deadline (MM/DD/YYYY)	05/15/2016
Grade	P3
Direct employment	Not required
Purpose	<p>To be the technical responsible of the Heating Neutral Beam injector (HNB) vessels and Passive Magnetic Shield (PMS) and Active Correction and Compensation Coils (ACCCs) and Fast Shutter (FS).</p> <p>To be responsible in coordinating the mechanical design activities for the HNB vessels and PMS, ACCCs and FS. To ensure the interfaces management between the mechanical components being procured by the relevant Domestic Agencies (DAs), for Japan (JADA) and Europe (F4E). To follow up on the manufacturing design and manufacturing and testing activities which is directly relevant to the above components.</p> <ul style="list-style-type: none">• Prepares technical documentation necessary for Procurement Arrangement for the Heating Neutral Beam (HNB) vessels and Passive Magnetic Shield (PMS) and Active Correction and Compensation Coils (ACCCs) and Fast Shutter (FS);• Oversees the design activities covering the manufacturing design and manufacturing activities of the HNB vessels and PMS and ACCCs and FS, ensures that this is carried out within cost and defined schedule;
Main duties / Responsibilities	<ul style="list-style-type: none">• Coordinates and directs design activities performed by the ITER Organization (IO) for the above components;• Assesses the deliverables delivered by the Domestic Agencies (DAs) for the manufacturing of the above components;• Manages all documentation to be delivered by the DAs for preparation and during manufacturing phase according to IO Quality Assurance (QA) procedure;• Identifies and updates the interfaces within the section and with other systems;• Provides mechanical and seismic analyses for the Heating Neutral Beam (HNB) components and also for other Neutral Beam activities as requested;• Proposes effective decisions on the mechanical design of the injectors in close collaboration with the section leader;• Shows strong commitment to the ITER safety program and enforces it through individual behavior in his organization;• Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan;• May be requested to be part of any project team and performs other duties upon management request;• Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics. <ul style="list-style-type: none">• Reports to Neutral Beam Section Leader;• Acts as an interface between F4E and JADA on the design of the mechanical components of the HNB especially for interfaces between Heating Neutral Beam (HNB) Passive Magnetic Shield (PMS) and High Voltage (HV) Bushing and HV lines;• In response to requests from the Director-General and/or Tokamak Engineering Department (TED) Head, or proactively, informs the DG/ TED 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.
Measures of effectiveness	<ul style="list-style-type: none">• Writes accurate and high standards technical specifications for Heating Neutral Beam (HNB) vessels and Passive Magnetic Shield (PMS) and Active Correction and Compensation Coils (ACCCs) and Fast Shutter (FS) within the defined schedule;• Monitors efficiently manufacturing contract of HNB vessels and PMS and ACCCs and FS and manage associated deliverables and QA documentation;• Coordinates effectively activities of mechanical designer(s) in the Neutral Beam section and directs them in the design of the components;• Ensures the mechanical design of the HNB Vessels and PMS and ACCCs and FS within the defined quality, cost and schedule;• Manages effectively the interfaces between the F4E on the design of the mechanical components and the integration of these components into the Tokamak building.• Provides effective support to the section in preparation of final design review and manufacturing design review of the NB vessels, PMS, ACCCs and FS.
	Project Construction Phase
Level of study	At least Master's Degree or equivalent
Diploma	Mechanical engineering field or other relevant dis
Level of experience	At least 5 years
Technical experience/knowledge	<ul style="list-style-type: none">– At least 8 years' experience mechanical design experience and/or design on Heating & Current Drive (HCD) system(s);– At least 5 years' experience in technical integration of complex mechanical systems;– At least 5 years' experience in mechanical engineering in areas relevant to the ITER environment (e.g. Remote handling, Ultra High Vacuum environment, nuclear environment, high heat flux components).– Experience in mechanical and spectral analysis– Knowledge of international and French industrial codes and standards (RCC-MR, ASME 8, SDC-IC, etc...) and good appreciation of quality assurance procedures.– Experience in manufacturing follow up and basic Project Management experience is required;– Experience in the technical design of Neutral beam injectors or tokamak components is considered an advantage;– Basic knowledge in magnetic shielding is considered 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 CATIA
General skills	– Proficient at writing technical reports and design guidelines
Others	<ul style="list-style-type: none">– Experience using analytical programming, and Microsoft applications required.– Experience using CATIA V5, ANSYS applications.
Languages	English (Fluent)

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