

IO1612 Neutral Beam Source Mechanical Engineer - TED-043

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Heating & Current Drive Division
Section	TED / HCD / Neutral Beam Section

Job description

Main job	Engineering - Mechanics
Title of the position	Neutral Beam Source Mechanical Engineer - TED-043
Job family	Engineer - 2
Grade	P3
Direct employment	Not required
Purpose	<p>To complete the design and manufacturing of the Neutral Beam (NB) Test facility and Heating NB source.</p> <p>To ensure the integration of the NB source into the Megavolt ITER Injector & Concept Advancement (MITICA) and ITER injectors.</p> <p>Completes the design finalization and the manufacturing of the MITICA & Heating Neutral Beam (HNB) and assures the integration of these technically complex components into the MITICA and ITER injectors;</p> <p>Provides the technical inputs to the potential suppliers during the design dialogue of the MITICA Beam source;</p> <p>Is responsible as the main point of contact with the Domestic Agency (DA) during the procurement period of the MITICA Beam source and the HNB source;</p> <p>Provides a rapid response to supplier requests questions during the manufacturing period of the MITICA Beam source and thereafter in the HNB source;</p> <p>Manages the deviations and non-conformities raised during the manufacture phase ;</p> <p>Ensures adequate quality control in the manufacturing and integration into the MITICA test facility through frequent missions to the suppliers and host site;</p> <p>Ensures the manufacturing changes are respected in the technical specifications and drawing for the HNB source;</p> <p>Assures the integration of the components into the ITER HNB's and the compatibility with the interfaces (remote handling, vacuum, cooling water);</p> <p>Liaises with the Diagnostic Neutral Beam (DNB) Technical Responsible Officer (TRO) to assure transfer of information on the design solutions to the DNB;</p> <p>Manages the design and manufacturing documentation and approval;</p> <p>Keeps the relevant interface control documents and other associated documentation up to date;</p> <p>Reports variances on all technical, cost and schedule aspects immediately to the Division Head and supports effective risk management;</p> <p>Assists in the preparations for the installation of the NB systems on ITER;</p> <p>Supports effective risk identification and management;</p> <p>Supports the change control process for his/her scope of work and communicates changes to the Section Leader/Division Head. Guarantees integration with other technical interfaces;</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work Breakdown Schedule or 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 directly to the NB Section Leader.</p> <p>Interfaces with other ITER Technical Departments, as required;</p> <p>Ensures integration with other technical interfaces;</p> <p>In response to requests from the Director-General and/or Tokamak Engineering Department</p>
Main duties / Responsibilities	

	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.
Measures of effectiveness	<p>Work packages completed to agreed deadlines;</p> <p>Monitors efficiently the design finalisation and the manufacturing of the MITICA & HNB and the integration of the components into the MITICA and ITER injectors;</p> <p>Contributes effectively to the NB specification of allocated procurement packages;</p> <p>Manages procurement of systems / components through procurement packages within the defined cost and schedule;</p> <p>Controls accurately the technical aspects of the and HNB source installation on ITER.</p> <p>Project Construction Phase</p>

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Mechanical Engineering
Level of experience	At least 8 years
Technical experience/knowledge	<p>At least 8 years' experience in mechanical engineering (including 3 years in project engineering);</p> <p>At least 5 years' experience working with large complex system, thus enabling the candidate to have a good understanding of the associated installation and integration issues;</p> <p>Mechanical engineering and manufacturing experience of complex components in a vacuum environment and high heat flux materials;</p> <p>Knowledge of neutral beam technology would be advantageous.</p> <p>5 years' experience in technical/mechanical design; experience in planning functions in scientific / technical projects.</p> <p>Experience in application of recognized engineering codes and standards, experience in manufacturing;</p> <p>Experience with the technical follow-up of CAD activity:</p> <p>Familiarity with CATIA and CAD oversight, incl. manufacturing drawings</p> <p>Familiarity with P&ID diagrams</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	Proven presentation writing skills.
Languages	English (Fluent)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)