

IO1329 Diagnostic Engineer CHD-036 / CHD-046

General information

Job category	Standard
Status	Published
Department	DIP/Directorate for CODAC, Heating & Diagnostics
Division	CHD / Diagnostics Division
Section	CHD/ DD/ Common Port Plug Engineering Sub-Section

Job description

Main job	Engineering - Diagnostics
Title of the position	Diagnostic Engineer CHD-036 / CHD-046
Job family	Engineer - 1
Grade	G6
Direct employment	Required Two vacancies to be filled in.
Purpose	<p>To develop the design of interfaces of diagnostic systems with the main tokamak components, particularly in the in-port and ex-vessel integration of diagnostic port-based systems and interfaces of these systems with vacuum & cooling in port integration and buildings alongside the Diagnostics Team. To identify requirements and perform engineering analysis as required. To support the Division in all matters relating to the implementation of ITER diagnostics.</p> <ul style="list-style-type: none">- Develops the design interfaces of diagnostics with the main tokamak components. The in port and ex-vessel integration of diagnostic port-based systems and interfaces of these systems with vacuum and cooling systems, as well as associated safety aspects and buildings are the main topics to be addressed;- Develops interfaces of diagnostic systems with buildings;- Develops conceptual, outline engineering designs for the port based diagnostic components located in the harsh ITER environment;- Supports design of systems and components for diagnostics which require interfaces with vacuum and cooling; supports development of associated testing and maintenance schemes;- Performs analysis of mechanical and thermal stresses, hydraulic analysis of diagnostic cooling circuits, analysis of vacuum systems, stresses due to electro-magnetic forces, dynamic analysis, neutronics assessment, and provision for mitigation of environmental factors of port-based diagnostic equipment;
Main duties / Responsibilities	<ul style="list-style-type: none">- Prepares technical specifications and documents as required;- Supports procurement of diagnostics through procurement packages by helping ROs to interact with the teams working in the Domestic Agencies of the ITER Partners as necessary;- Specifies and supports on-going diagnostic design and port integration activities and updates and helps to integrate these designs;- Develops and uses project engineering tools for the procurement of diagnostic systems;- Prepares for the installation of the diagnostic systems on ITER;- Reports variances on all technical, cost and schedule aspects immediately to the line management;- Supports effective risk identification and management;- Supports the change control process for his/her scope of work and communicates changes to the line management. Guarantees integration with other technical interfaces;- Supports IO and DA diagnostic engineering designs and specifications;- Supports and leads the Design Review processes as appropriate; <p>Maintains related documentation at all times on the ITER Document System and ensure it is updated and in the correct formats;</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work Schedule or 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>Under the coordination of the Common Port Plug Engineering Sub-Section Leader, reports to the Diagnostics Division Head;</p> <p>In response to requests from the DG and/or CODAC, Heating & Diagnostics Director, or proactively, informs the DG/ CODAC, Heating & Diagnostics Director 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 interfaces of diagnostics with the main Tokamak components;</p> <p>Develops conceptual engineering designs for key diagnostic components located in the harsh ITER environment;</p> <p>Prepares technical specifications and reports as required</p> <p>Prepares for the installation of the diagnostic systems on ITER;</p> <p>Facilitates relationships with Domestic Agencies and other Directorates at IO;</p> <p>Works efficiently at all times with other Diagnostics team members;</p> <p>Complete all work in a timely manner and meet agreed deadlines.</p> <p>SAP Id: 50000671 - Project construction phase</p>

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Engineering, physics or fusion or relevant
Level of experience	At least 5 years
Technical experience	<ul style="list-style-type: none"> - Experience preferably in a high technology field such as plasma physics, high energy particle physics, fission reactors or Ultra High Vacuum (UHV) systems; - Familiarity with some aspects of mechanical and/or electrical engineering design for tokamak diagnostic systems, such as magnetics, instrumentation, optical engineering, vacuum systems, microwave and cabled electrical transmission, water cooling systems and mechanical handling schemes, would be an advantage; - Familiarity with recognized engineering codes and standards, experience in manufacturing or database manipulation would be an advantage; - Experience with the technical followup of CAD activity and/or direct participation in CAD activities 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
Languages	English (Working)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	Ability to use analysis codes (ANSYS etc) and CAD tools (CATIA etc)