

IO1213 Cooling Water Thermal-hydraulic Engineer CEP-135

General information

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| Job category | Standard |
| Status | Published |
| Department | DIP/Directorate for Central Engineering & Plant |
| Division | CEP / Plant Engineering Division |
| Section | CEP / PED / Cooling Water System Section |

Job description

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| Main job | Engineering - Hydraulics |
| Title of the position | Cooling Water Thermal-hydraulic Engineer CEP-135 |
| Job family | System Engineer - 1 |
| Grade | P3 |
| Direct employment | Not required |
| Purpose | <p>To provide thermal and hydraulic engineering expertise to the Cooling Water System (CWS) section.</p> <p>To identify and execute technical studies, establish and review baseline documentation, design, procurement, installation, commissioning, operation and maintenance of all functions required for the correct and safe running of the ITER cooling water system.</p> <p>Identifies, coordinates and executes the required thermal-hydraulics steady state analyses of the various CWS circuits by using the Fathom code;</p> <p>Identifies, coordinates and executes the required Thermal-hydraulics transient analyses of the CWS circuit by using the RELAP5 code;</p> <p>Verifies that safety margins for SIC systems are maintained as required during steady-state operation and during transients;</p> <p>Reviews the Process Flow Diagrams (PFDs) and P&IDs of the CWS circuits prepared using SEE-VISIO software by the Domestic Agencies (DAs);</p> <p>Assess the pressure drop of various client components and systems;</p> <p>Identifies and resolves the thermal-hydraulics requirements and relevant functional interface issues with other PBSs, sections or divisions;</p> <p>Investigates and assess the compliance of the final design of the CWS according to the thermal hydraulic functional requirements, safety requirements, and the interfaces with all the clients;</p> <p>Coordinates, manages and reviews the documents, calculations and analysis prepared by industry during the fabrication and construction phases;</p> <p>Manages the contracts for the thermal-hydraulics steady-state analysis;</p> <p>Evaluates deviation requests and non-conformances during fabrication and construction phases to assess impact on the conclusions of the thermal-hydraulic analyses;</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work Schedule and 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> |
| Main duties / Responsibilities | <p>Reports to the Cooling Water System Section Leader;</p> <p>Acts as an interface between the Cooling Water System and DAs staff to support development and update of the relevant thermal hydraulic models and between the CWS section and the interfacing client and user systems;</p> <p>In response to requests from the Director-General and/or Director of Central Engineering & Plant (CEP) Directorate, or proactively, informs the DG/ Director of CEP Directorate 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> |
| Measures of effectiveness | <p>Identifies, coordinates and executes the thermal and hydraulic analysis for the CWS;</p> <p>Provides all inputs necessary to design, construct and test the CWS;</p> <p>Provides timely resolution of deviation requests and disposition of nonconformances affecting</p> |

thermal-hydraulic analyses during fabrication and construction;
 Supports efficiently the CWS section and Plant Engineering Division;
 Communicates with other organizations within the ITER collaboration and the fusion community.

Project Construction Phase

Applicant criteria

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| Level of study | At least Master's Degree or equivalent |
| Diploma | In mechanical, process engineering area |
| Level of experience | At least 8 years |
| | Engineering experience, with at least 5 years of technical experience in the thermal hydraulic design of heat transfer systems namely in the nuclear field. |
| Technical experience | Consistent knowledge of thermal hydraulic design of complex piping systems; Consistent experience in thermal hydraulic design codes for heat transfer systems namely in the nuclear field; |
| | Basic Project Management experience is required. |
| Project experience | 1 to 2 years |
| 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) |