

# IO1615 Structural&Layout Configuration Engineer - PED-024

## General information

Job category	Standard
Status	Published
Department	PED / Plant Engineering Department
Division	PED / Cooling Systems Engineering Division
Section	PED / CSED / Cooling Water System Section

## Job description

Main job	Engineering - Mechanics
Title of the position	Structural&Layout Configuration Engineer - PED-024
Job family	Engineer - EC
Grade	P1
Direct employment	Not required
Purpose	<p>To assess the Cooling Water System (CWS) final layout inside the buildings by using the AVEVA PDMS 3D models;</p> <p>To perform the Final Design and Analysis of the structural supports for the Cooling Water System (CWS) piping and equipment;</p> <p>To prepare the detailed analysis and drawings using AVEVA PDMS 3D models of piping supports to transfer the structural loads to the buildings;</p> <p>To provide solutions for the necessary spooling of concerned piping and preassembly before the final installation inside the buildings;</p> <p>To contribute to the procurement and the successful construction of the CWS piping system in the framework of the centralized piping procurement and participate to the preassembly and pretesting of the CWS piping system.</p>
Main duties / Responsibilities	<p>Produces static and dynamic stress analysis calculations and reports of the Tokamak Cooling Water System (TCWS) piping and equipment supports and structures;</p> <p>Maintains a fluent dialog with 3D designers and support designers to agree on the optimal required support configuration;</p> <p>Produces loads reports in coordination with other sections and clients (Buildings, etc);</p> <p>Reviews the structural analysis produced by industry or Domestic Agencies for the assigned systems;</p> <p>Participates to the design and conformity assessment of the TCWS equipment according to the French regulations (ESP/ESPN) and following required design codes and standards as per Licensing Design Basis;</p> <p>Contributes to the systems design, fabrication and modularization of TCWS equipment according to the prescriptions of the French Nuclear Regulator - Autorité de Sûreté Nucléaire (ASN) and also following the indications of the concerned Agreed Notified Body (ANB);</p> <p>Participates to the manufacturing of TCWS piping and equipment;</p> <p>Supports the Cooling Water System section for the design, procurement, assembly and/or installation and operation of the TCWS equipment in close collaboration with Domestic Agencies and other ITER IO Departments;</p> <p>Assures fruitful and continuous integration in Cooling Water System commissioning issuing and supporting issues of commissioning technical specifications and procedures;</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the 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 to the Cooling Water Section Leader;</p> <p>Acts as an interface with other internal and external resources for the design of the Cooling Water System components;</p> <p>In response to requests from the Director-General and/or Plant Engineering Department (PED)</p>

Measures of effectiveness	Head, or proactively, informs the DG/ PED 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.
	<ul style="list-style-type: none"> <li>Performs the stress analysis reports of the TCWS equipment supporting structure in a timely manner;</li> <li>Produces reports on time and with a high quality standard;</li> <li>Supports efficiently design and manufacturing activities;</li> <li>Assures satisfaction of safety and functional requirements flow down.</li> </ul>
	Project Construction Phase

## Applicant criteria

Technical experience/knowledge	Level of study	Master or equivalent degree
	Diploma	Nuclear or Mechanical Engineering;
	Level of experience	At least 2 years
		<ul style="list-style-type: none"> <li>Good knowledge of large piping system support design;</li> <li>Excellent knowledge of structural design codes AISC, Eurocode, etc. &amp; knowledge of ASME III related chapters is also be appreciated,</li> <li>At least 2 years' experience in nuclear or mechanical engineering,</li> <li>Experience in the seismic design of steel structures for Nuclear Facilities,</li> <li>Basic experience in the System Engineering of complex Nuclear projects,</li> <li>Basic experience in the Cold Sinks Engineering of complex systems and projects,</li> <li>Knowledge of the EU PED or French ESP/ESPN regulations and practical application will be considered advantageous;</li> <li>Basic Project Management experience is appreciated.</li> </ul>
	Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
	Languages	English (Fluent)
	Others	<ul style="list-style-type: none"> <li>Excellent Knowledge of Caesar II structural analysis software and GT Strudl, Staad Pro or similar software.</li> <li>Good knowledge of FEM analysis software (ANSYS).</li> <li>Good knowledge of 2D-3D CAD software (AVEVA PDMS and Catia).</li> <li>Excellent knowledge of MS Office standard (Word, Excel, PowerPoint, Outlook) is required.</li> </ul>