

IO1544 Structural Analysis Mechanical Engineer CIO-011

General information

Job category	Standard
Status	Published
Department	CIO/ Central Integration Office
Division	CIO / Analysis Section/Division

Job description

Main job	Engineering - Mechanics
Title of the position	Structural Analysis Mechanical Engineer CIO-011
Job family	Engineer - 1
Grade	P2
Direct employment	Not required
Purpose	<p>To perform structural analyses and develop solution for the structural verification of ITER mechanical components following requirements and priorities defined by the Analysis Section / Division Head.</p> <p>To create geometric and computational models derived from Computer Aided Design (CAD) models or drawings, to present the results, to demonstrate their accuracy and to write reports of the analyses to the standard required for nuclear or non-nuclear safety components.</p> <p>The analyses aim to demonstrate the structural reliability of systems and components in normal and extreme conditions including beyond design basis events.</p>
Main duties / Responsibilities	<p>Prepares finite element (FE) or computational models of ITER components;</p> <p>Performs structural (mechanical and thermal) analyses for the verification of the structural integrity of the ITER mechanical components following methodologies and procedures applied to nuclear safety equipment;</p> <p>Performs analyses for the verification of assembly tools and provides design proposal for improvements and cost saving;</p> <p>Proposes solutions for the demonstration of compliance of components with the design criteria for nuclear safety equipment;</p> <p>Prepares detailed and summary analysis reports;</p> <p>Develops programs, macros and software routines to interface programs for common use across the project;</p> <p>Develops and improves the interface of FE programs with CAD system.</p> <p>Contributes to the update and record of the FE model developed inside the ITER Organization and by the Domestic Agencies (DAs);</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan & upon management request;</p> <p>May be requested to belong to any project team dealing with 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>
Measures of effectiveness	<p>Reports to the Analysis Section / Division Head;</p> <p>Acts as an interface with all other ITER Departments;</p> <p>In response to requests from the Director-General and/or Head of Central Integration Office (CIO), Head of CIO or proactively, informs the DG/ 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>Provides accurate calculations according to the defined schedule;</p> <p>Provides comprehensive reports and summaries of the performed and revised analyses;</p> <p>Contributes to cost saving and improvement of work efficiency;</p> <p>Generates and maintains trustworthy, up to date information related to the machine technical scope.</p>
	Project Construction Phase

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Mechanical Engineering
Level of experience	At least 5 years
Technical experience/knowledge	Knowledge of design criteria for nuclear and non-nuclear components; Knowledge of analysis methodologies for normal and extreme events including those that are considered beyond design basis for Nuclear Installations.
	At least 5 years of experience in structural mechanical calculations and related activities; Experience in the preparation of stress test report for Nuclear Installations; Experience in the use of finite elements analysis software. Basic Project Management experience is required.
	Social skills
	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
	Languages
Specific skills	English (Fluent)
	MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	Good skill in computer usage (super computer, cluster machines, stand-alone work station); Experience in the use of finite element software (priority given to the software used in IO); Experience working with Microsoft Office suite of programs.