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JOB DETAIL

Ref. IO1923 - 12/10/2017

Structural Analysis Mechanical Engineer - CIO-075

Main job	Mechanics
Department	CIO/ Central Integration Office
Division	CIO / Analysis Section/Division
Job Family	Engineer - 2
Application Deadline (MM/DD/YYYY)	01/21/2018
Grade	P2
Direct employment	Not required
Purpose	To contribute the structural analyses and develop solution for the structural verification of ITER mechanical components following requirements and priorities defined by the Analysis Section / Division Head. To support the creation of geometric and computational models derived from Computer Aided Design (CAD) models or drawings and to write reports of the analyses to the standard required for nuclear or non-nuclear safety components. To follow-up and review analyses from other ITER Organization (IO) departments or from Domestic Agencies (DAs).
Main duties / Responsibilities	-Prepares finite element (FE) or computational models of ITER components; -Provides effective support to the Responsible Officer to perform structural (mechanical and thermal) analyses for the verification of the structural integrity of the ITER mechanical components following methodologies and procedures applied to nuclear or non-nuclear safety equipment; -Supports the completion of the assembly tools justification files by performs analyses and/or independent verification of calculation notes, with major attention on the integrated assembly tools/equipment analyses; -Acts as independent reviewer of VV analysis documents for the completion of the justification file to be presented to the French Nuclear Authority (Agreed Notified Body); -Proposes solutions for the demonstration of compliance of components with the design criteria for nuclear or non-nuclear safety equipment; -Supports the preparation of detailed and summary analysis reports; -Collects input data for analysis by interacting with Systems Responsible Officers, prepares and reviews technical specification for analysis, and review of technical reports; -Develops programs, macros and software routines to interface programs for common use across the project; -Develops and improves the interface of FE programs with CAD system. -Contributes to the update and record of the FE model developed inside the IO and by the DAs; -May be required to work outside IO reference working hours, including nights, weekends and public holidays; -Implements the technical control of the Protection Important Activities, as well as their propagation to the entire supply chain; -Performs other duties in support of the project schedule; -May be requested to be part of any of the project/construction teams and to perform other duties; -Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.
Measures of effectiveness	-Reports to the Analysis Section / Division Head; -Acts as an interface with all other ITER Departments; -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. -Effectively supports the accurate calculations according to the defined schedule; -Develops comprehensive high quality reports and summaries of the performed and revised analyses; -Contributes to cost saving and improvement of work efficiency; -Generates and maintains trustworthy, up to date information related to the machine technical scope.

	Project Construction Phase
Level of study	Master or equivalent degree
Diploma	Mecahnical Engineering
Level of experience	At least 5 years
Technical experience/knowledge	-At least 5 years of experience in structural mechanical calculations and related; -Good experience in the use of finite elements analysis software; -Good experience in finite element analyses for structural mechanical calculations; -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 would be advantage; -Knowledge of European and International standards for the design of mechanical equipment; -Experience in one or more of the following analysis areas would be an advantage: fast transient (explicit FEA), fast fracture, advanced thermal; -Extensive experience in similar jobs (involving similar work responsibilities) and/or additional training certificates in relevant domains may be considered a reasonable substitute for the required educational degree.
Social skills	Ability to work effectively in a multi-cultural environment Ability to work in a team and to promote team spirit
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)
General skills	-Experience of work in an International environment; -Ability to facilitate dialogue with a wide variety of contributors and stakeholders; -Ability to analyze multiple and diverse sources of information to define problems accurately within the defined schedule; -Ability to apply high standards of team mindset, trust, excellence, loyalty and integrity.
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.
Languages	English (Fluent)