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JOB DETAIL

Ref. IO1401 - 4/2/2014

Stress Analysis Specialist TCWS-008 + TCWS-010

Main job	Mechanics
Department	DIP/Directorate for Plant System Engineering
Division	PSE/Plant Engineering Division
Section	PSE/ PED/ Cooling Water System Section
Job Family	Coordinating Technician
Application Deadline	04/23/2014
Grade	G5
Direct employment	Required
Purpose	[Job offer for 3-year contract] This post includes a total of 2 vacancies: TCWS-008 & TCWS-010 To be responsible for the mechanical design and stress analyses of the Nuclear Pressure Equipment and/or piping system for the Tokamak Cooling Water System (TCWS); To support the Cooling Water System (CWS) Section during procurement and assembly of the assigned equipment; To support the CWS Section during testing of the TCWS equipment. •Prepares stress analyses and mechanical calculations according to the applicable ASME codes (e.g. ASME III, VIII, ASME B31.3 etc.) by using appropriate software (e.g. ANSYS, GTSTRUDL or Caesar II); •Revises the stress analysis and mechanical calculations of Nuclear Pressure Equipment done by industry or Domestic Agencies;
Main duties / Responsibilities	•Prepares general arrangements and detailed drawings of Nuclear Pressure Equipment; •Revises detailed drawings of Nuclear Pressure Equipment prepared by industry or Domestic Agencies; •Maintains a fluent dialog with 3D designers to agree on the optimal required Nuclear Pressure Equipment and piping routing / support configuration; •Performs stress analysis calculations when required for supports and steel frames; •Produces loads reports in coordination with other disciplines or clients (Building, static and rotating equipment, supports design, etc.); •Participates in the design and conformity assessment of the Cooling Water System according to the French regulations (ESP/ESPN) and following required design codes and standards as per Licensing Design Basis; •Full and fruitful involvement in the systems design, fabrication and modularization of Cooling Water System 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); •Participates in the manufacturing of Cooling Water Systems; •Supports the Cooling Water System Section for the design, procurement, assembly and/or installation and operation phases of the Cooling Water System components in close collaboration with Domestic Agencies and other ITER Directorates; •Ensures fruitful and continuous integration of Cooling Water System commissioning and supporting issues regarding commissioning technical specifications and procedures; •Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan; •Performs other duties linked to the above purpose upon management request, as necessary; •Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.

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RSS

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Measures of effectiveness	<ul style="list-style-type: none">• Reports to the Cooling Water System Section Leader;• Acts as an interface with other internal and external resources for the design of the Cooling Water System components;• In response to requests from the Director-General and/or Plant System Engineering (PSE) Directorate Director, or proactively, informs the DG/ PSE Directorate 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. <ul style="list-style-type: none">• Performs the stress analysis and/or design of the Cooling Water System components and/or piping in a timely manner;• Produces the required reports on time and in accordance with a high quality standard;• Assures satisfaction of safety and functional requirements flow down. <p>Project Construction Phase</p>
Level of study	Master or equivalent degree
Diploma	Nuclear or Mechanical Engineering
Level of experience	At least 4 years
Technical experience	<ul style="list-style-type: none">– At least 4 years' experience in the detailed design of Nuclear Pressure Vessels or large Nuclear Piping Systems;– Good knowledge of Nuclear Pressure Vessels and/or Nuclear Piping Systems and the associated design codes;– Experience in the design of nuclear pressure vessels and/or nuclear process piping systems;– Basic experience in the System Engineering of complex Nuclear projects;– Basic experience in the Cold Sinks Engineering of complex systems and projects;– Knowledge of the French ESP/ESPN regulations and practical application will be considered advantageous.
Social skills	Ability to work effectively in a multi-cultural environment Ability to work in a team and to promote team spirit
Specific skills	Ansys CATIA MS Office standard (Word, Excel, PowerPoint, Outlook)
General skills	Computer and IT skills: <ul style="list-style-type: none">– Good Knowledge of Pressure Vessel stress analysis software (PVelite, Microprotol, GDSTRUDL or similar) and/or Caesar II piping stress analysis software;– Knowledge of General Purpose FEM analysis software (ANSYS);– Knowledge of 2D-3D CAD software (AVEVA, Smartplant or Catia) is appreciated.
Languages	English (Working)