ITER 국제기구 공모 직위 직무기술서 (44차)

❑ 공모 직위 : P급 5개 직위

분야/소속		직 위	Job No.	등급
중앙통합엔지니어링 (CIE)	Systems Analysis and Standards Section	Structural Analysis Responsible Officer	CIE/PRO-036	P3
중앙엔지니어링 (CEP)	Cooling Water System Section	Cooling Water System Section Leader	CEP-002	P5
토카막(TKM)	TF Coil Section	Toroidal Field Coil Section Leader	TKM-004	P5
	VV Ports and Thermal Shield Section	Manufacturing Responsible Officer	TKM-108	P3
안전·품질·보안 (SQS)	Quality Assurance Division	Lead Quality Assurance Engineer	SQS-014	P4

IO1122 Structural Analysis Responsible Officer CIEPRO036

Job description

Main job	Engineering - Generalist
Title of the position	Structural Analysis Responsible Officer CIEPRO036
Job family	Project engineering
Grade	P3
Direct employment	Not required
Purpose	To perform structural analysis and to provide support to ITER Technical Responsible officers in the preparation of system load specifications and structural integrity reports. To support the System Analysis and Standards Section (SYSA) of the Technical Integration Division (TID), in the Central Integration & Engineering Office (CIEO) in matters related to the structural analyses and load specifications for ITER mechanical components following requirements and priorities defined by the CIE Office management and in support of requests from other Divisions.
Main duties / Responsibilities	1) Coordinates and manages the system load specifications: a) Interfaces with ITER Fusion Science and Technology Department to prepare: plasma transient simulation (DINA or other selected code); specifications for asymmetric plasma behaviour in plasma transients. b) Supports systems responsible officers to create systems and components load specifications: Prepares general guidelines on system load specifications; Coordinates the preparation of system load specifications for ITER systems mechanical components; Monitors the system load specifications to ensure they are properly applied in verification analyses. 2)Coordinates and executes structural analyses a)Develops Quality Assurance (QA) procedures for analyses; b)Verifies that QA procedures are applied throughout the project; c)Interacts with other Divisions for the preparation of the system and components stress reports (verifies that reports are consistent with the analyses' QA requirements, general and system load specifications, and selected C&S rules); d)Reviews and verifies analyses performed by other Divisions and by DA's; e)Develops programs, macros and software routines for common use across the project; f)Contributes to the update and record of the finite element (FE) model developed inside the ITER Organization and provided by the DA's; g)Coordinates analyses activities oriented to design improvements and cost reductions following requirements and priorities defined by the CIE Office management; h)Coordinates the wide system structural analyses.
Measures of effectiveness	Successfully supports the SYSA Section in achieving the defined objectives and milestones; Provides comprehensive reports and summaries of the performed and revised analyses; Provides a work plan and schedule of analyses coordinated by SYSA; Successfully generates and maintains trustworthy, up to date information related to the machine technical scope.

Applicant criteria

Level of study	Bachelor or equivalent degree
Diploma	Engineering
Level of experience	At least 8 years
Technical experience	At least 8 years of experience in the analyses of components of large (scientific or industrial) projects (preference is given to experience on large Tokamak machines) and in the definition of load specifications; Proficiency and direct experience in using finite element programs; Good understanding of the ITER specific sources of loads (electromagnetic, seismic, nuclear) and good capacity to identify the design loads associated with the physics of the ITER operational requirements and to translate them into input for ITER engineering activities;

	Knowledge of the ITER design, configuration, procedures; Good knowledge of structural design codes; Capacity to plan, coordinate and manage analysis activities; Knowledge of engineering aspects of the design and analysis of the main Tokamak systems;
Project experience	2 to 4 years
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit, Ability to effectively multi-task
Languages	English (Working) French (Basic)

IO1129 Cooling Water System Section Leader CEP-002

Job description

Main job	Engineering - Mechanics
Title of the position	Cooling Water System Section Leader CEP-002
Job family	Project engineering
Grade	P5
Direct employment	Not required
Purpose	To be responsible for the design, integration, assembly, installation and commissioning of the ITER cooling water systems (CWS); To coordinate the CWS Section activities and ensure the team works collaboratively with the ITER Responsible Officers (RO) in charge of the cooling water clients, the concerned Domestic Agencies (DAs) and the Assembly Section.
Main duties / Responsibilities	Coordinates the CWS Section activities to complete the CWS [i.e. Tokamak Cooling Water Systems (TCWS), Components Cooling Water systems (CCWS), Chilled Water System (CHWS) and Heat Rejection System (HRS)] design; Is responsible for designing the CWS system and components, including the layout; Is responsible for overseeing the assembly and installation activities; Is responsible for the commissioning and preparation of operation activities; Coordinates the design activities in the DAs for CWS design and Research & Development (R&D); Integrates the CWS design with the rest of the system/components in ITER; Completes and updates the required baseline documentation; Supports the licensing activities in close contact with the Department for Quality and Security; Monitors the schedule/cost for the CWS construction, assembly, installation and commissioning; Provides effective leadership for the Section ensuring team members are motivated and constantly developing their skills and experience; Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.
Measures of effectiveness	Successfully coordinates the Cooling Water System Section; Successfully manages interfaces between the Cooling Water System with users and suppliers; Successfully manages plans for procurement, manufacturing, installation, testing and commissioning; Successfully maintains effective communication with all parties delivering subsystems.

Applicant criteria

Level of study	Bachelor or Master/Engineer Degree
Diploma	Mechanical or Process Engineering
Level of experience	At least 10 years
Technical experience	At least 10 years' experience as a mechanical/plant system engineer specialized in cooling systems for fusion and/or fission power plant designs; Technical ability to design, construct and commission nuclear plant cooling systems and components, and knowledge of water chemistry;

	Good knowledge of and experience with design codes and standards; Proficiency in industrial cooling water components and processes; Knowledge of the design of tokamak fusion machine systems.
Project experience	6 to 10 years
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit, Ability to communicate effectively
Specific skills	People Coordination experience: At least 5 years' supervising experience on a wide range project in the area of plant design/ construction. Social skills: Collaborative and positive personality; Able to develop and maintain effective international professional contacts;
Languages	English (Working)
General skills	MS Office standard (Word, Excel, PowerPoint, Outlook)

IO1130 Toroidal Field Coil Section Leader - TKM-004

Job description

Main job	Engineering - Mechanics
Title of the position	Toroidal Field Coil Section Leader - TKM-004
Job family	Project engineering
Grade	P5
Direct employment	Not required
Purpose	To coordinate the ITER Toroidal Field (TF) Coil Section activities for the design and procurement of the ITER TF coils. As Section Leader, this implies also supervising the work organization, schedules, interfaces to ITER participants responsible for procurement and their industries, etc.
Main duties / Responsibilities	Provides effective leadership for the ITER TF Coil Section, ensuring that team members are motivated; Develops the TF coils for their construction, monitors the Research & Development (R&D) in institutes and industry, ensures the results are implemented in the design, ensures proper qualification testing of the design is implemented at appropriate points during the manufacturing; Monitors the TF coil manufacturing, ensures that quality controls are properly implemented, takes effective action when quality problems are found; Prepares and maintains TF coil documentation, including design and analysis, drawings, etc.; Oversees and contributes to design work on the TF coils, maintaining update controls on drawings and CAD models, and issuing TF coil drawings; Responsible for the TF winding pack, TF structures, Pre-compression Rings and Coil Supports procurement follow up, including where appropriate supervising the TROs; Monitors TF coil procurement costs, time scales and resources planned/used; Highlights potential delays in time for corrective actions to be applied; Reports on the TF Coil Section activities; Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.
Measures of effectiveness	Ensure the quality of the ITER TF coils during procurement; Foresee and ensure the timely resolution of manufacturing issues; Responsible for timely procurement of the ITER TF coils within defined cost.

Applicant criteria

Level of study	Master or higher degree
Diploma	Engineering (mechanical or electrical) or Physics
Level of experience	At least 10 years
Technical experience	At least 10 years' experience, 5 of them specifically in coil design, analysis and manufacturing, covering high voltage electrical engineering issues; Experience in manufacturing (forming and welding) of large metallic structures; Good knowledge of all aspects of cryogenic coil design. Experience with manufacture and/or operation of superconducting magnet systems Familiar with features of low temperature superconductors

Project experience	5 to 7 years
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
Specific skills	Project experience: At least 5 years' experience with project management in a large magnet project. People Coordination experience: At least 5 years' supervising experience on a wide range project in the area of plant design/ construction.
Languages	English (Working)
General skills	MS Office standard (Word, Excel, PowerPoint, Outlook)

IO1132 Manufacturing Responsible Officer TKM-108

Job description

Main job	Engineering - Manufacturing, welding
Title of the position	Manufacturing Responsible Officer TKM-108
Job family	Project engineering
Grade	P3
Direct employment	Not required
Purpose	To be responsible for supervising the manufacturing Vacuum Vessel (VV) and Port systems, with an emphasis on the RCC-MR (and/or RCC-M) code compliance and reporting. This also includes implementing requirements related to the French Regulations for Pressure and Nuclear Pressure Equipment.
Main duties / Responsibilities	-Performs detailed checking of drawings and manufacturing documentation (material documentation, welding book, WPS, NDT procedure, forming procedure, testing procedure) submitted by the Domestic Agencies (DA) in the framework of Vacuum Vessel (and/or other components) procurement arrangement (PA) implementation; emphasis will be on compliance with RCC-MR and technical specification; -Monitors the fabrication of components for the Vessel Division built according to RCC-MR or ASME and is also responsible for reports including (materials, welding qualification, welding, NDT, dimensional test, pressure test and leak testing) -Implements all requirements related to the French Regulations for Pressure and Nuclear Pressure Equipment for the Division; -Liaises with ITER Quality Assurance (QA) Division for the implementation of QA requirements on the Vacuum Vessel; -Supervises (for the Division) the qualification program for alternative NDE techniques such as advanced U.T examination; -Advises the Division on the selection of manufacturing techniques (welding, NDT) and supervises Research & Development (R&D) and qualification programs; -Advises the Division on the selection of materials; -Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.
Measures of effectiveness	-Completes procurement activities of VV systems in a timely manner and within defined costs; -Successfully generates and maintains coherent, comprehensive, and understandable documentation; -Successfully maintains effective communications within the ITER Organization.

Applicant criteria

Level of study	Bachelor or Master/Engineer Degree
Diploma	Engineering
Level of experience	At least 10 years
Technical experience	-10 years' experience in the design and manufacturing supervision of components for Nuclear Pressure Equipments and/or Pressure Equipments; -Experience applying the RCC-MR/RCC-M and ASME codes to large Nuclear Components; -Experience implementing all requirements related to the French Regulation for Pressure and Nuclear Pressure Equipment including Conformity Assessment of Nuclear Pressure Equipments; -Experience in fabrication (procurement of material forming and welding) of large stainless steel structures; -Experience working with nuclear and conventional pressure vessel codes.
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)
General skills	MS Office standard (Word, Excel, PowerPoint, Outlook)

IO1134 Lead Quality Assurance Engineer SQS-014

Job description

Main job	Quality-Methodology - Quality Assurance
Title of the position	Lead Quality Assurance Engineer SQS-014
Job family	Organizational support
Grade	P4
Direct employment	Required
Purpose	To provide quality assurance leadership and interface with the ITER Project organization and particularly with the ITER Director General's Office and Administration Directorate. This position provides the management backup for the Quality Assurance (QA) Division Head in the implementation of the ITER Quality Assurance Program (QAP).
Main duties / Responsibilities	Assures the application of ITER Quality Assurance requirements to all areas of the Project; Assists the ITER Director General's Office and Administration Directorate with the definition and management of the ITER Management and Quality Program; Assists in the development and maintenance of an Integrated Management System; Oversees the process development and maintenance of the Management & Quality Program website; Assists in the development and implementation of quality training programs; Performs quality related activities as directed by the Head of the QA Division; Acts as the deputy for the Quality Assurance Division Head, as required; Participates in internal and external surveillance audits; Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.
Measures of effectiveness	Provides effective monitoring of the ITER Organisation's compliance with the QAP; Manages the ITER quality training program; Provides assurance of the Domestic Agencies' compliance with the ITER QAP.

Applicant criteria

Level of study	Master or equivalent degree
Level of experience	At least 10 years
Technical experience	At least 10 years' proven experience in Quality Assurance management; Experience in working to quality systems in an industrial environment; Experience in quality management in the nuclear industry; Effective written and oral skills; Experience in the application of International Quality Standards; Practical experience in the development of Quality Process Management systems; Experience in developing and implementing quality training programmes; Experience with Integrated Management Systems; People coordination skills are essential; Inspection experience is desirable; Audit experience is desirable.
Project experience	2 to 4 years
People management experience	5 to 7 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)
General skills	MS Office standard (Word, Excel, PowerPoint, Outlook)