

ITER 국제기구 공모 직위 직무기술서 (제148차)

○ 27개 직위

구분	분야	소속	직위	Job No.	등급
①	건설 (CST)	Construction Department Tokamak Assembly Section/Division	In-Kind Assembly Tool Engineer	CST-034	P4
②			In-Cash Assembly Tool Engineer	CST-035	P4
③			Tokamak Instrumentation Engineer	CST-038	P4
④	중앙통합 (CIO)	Central Integration Office Project Information System Section/Division	IT Engineering Tools Coordinator	CIO-052	P4
⑤	건설 (CST)	Construction Department Construction Management Section/Division	Dimensional Control Engineer	CST-036	P3
⑥		Facilities, Logistics & Materials Division Facilities Management Section	Civil_Buildings Engineer	CST-037	P3
⑦	토카막 엔지니어링 (TED)	Heating & Current Drive Division Ion & Electron Cyclotron Section	Upper Launcher Engineer	TED-052	P3
⑧		Heating & Current Drive Division Neutral Beam Section	Mechanical Engineer	TED-054	P3
⑨			Mechanical Engineer	TED-055	P3
⑩	토카막 엔지니어링 (TED)	Magnet Division PF Coil Section	Magnet Engineer	TED-057	P3
⑪			Magnet Engineer	TED-060	P3
⑫		Magnet Division Superconductor Systems & Auxiliaries Section	Feeders Mechanical Engineer	TED-059	P3
⑬			Mechanical Engineer	TED-061	P3
⑭		Port Plugs & Diagnostics Integration Division Common Port Plug Engineering Sub-Section	Diagnostic Port Integration Officer	TED-062	P3
⑮		Port Plugs & Diagnostics Integration Division In-Vessel Diagnostics Section	Plasma Wall Diagnostician	TED-063	P3
⑯			Vacuum Electrical Engineer	TED-064	P3
⑰			Diagnostic Engineering Physicist	TED-065	P3
⑱			Heating & Current Drive Division Ion & Electron Cyclotron Section	Ion Cyclotron Mechanical Engineer	TED-051

구분	분야	소속	직위	Job No.	등급
⑰		Magnet Division CS & Correction Coil Section	Magnet Engineer	TED-056	P2
⑳	중앙통합 (CIO)	Central Integration Office Design Integration Section/Division	Construction & Integration Engineer	CIO-053	P2
㉑	플랜트 엔지니어링 (PED)	Cooling System Engineering Division Cooling Water System Section	Thermal Hydraulic Engineer	PED-032	P1
㉒		Plant Engineering Department Remote Handling & Radioactive Materials Division	Hot Cell Engineer	PED-045	G6
㉓		Fuel Cycle Engineering Division Vacuum Section	Vacuum Design Technician	PED-042	G5
㉔	토카막 엔지니어링 (TED)	Magnet Division Superconductor Systems & Auxiliaries Section	Instrumentation Technician	TED-058	G5
㉕		Vessel Division VW/Ports & Thermal Shield Section	Manufacturing Engineering Technician	TED-068	G5
㉖	플랜트 엔지니어링 (PED)	Cooling System Engineering Division Cryogenic System Section	Cryogenic Commissioning Technician	PED-034	G4
㉗	중앙통합 (CIO)	Design Office Division CAD Section	CAD Technician	CIO-056	G3

IO1678 In-Kind Assembly Tool Engineer CST-034

General information

Job category	Standard
Status	Published
Department	CST / Construction Department
Division	CST / Tokamak Assembly Section/Division

Job description

Main job	Engineering - Construction
Title of the position	In-Kind Assembly Tool Engineer CST-034
Job family	Coordinating Engineer
Grade	P4
Direct employment	Not required
Purpose	<ul style="list-style-type: none">- To provide project engineering expertise, and apply project management methodologies to implement the Procurement Arrangement (PA) between the ITER Organization (IO) and the Korean Domestic Agency (KO DA), which covers the purpose-built tooling required to assemble the major Tokamak systems and components;- To ensure effective liaison between the IO Technical Responsible Officers and the IO technical disciplines interfacing with the purpose-built tools, and to be the primary technical point of contact with the KO DA.
Main duties / Responsibilities	<ul style="list-style-type: none">- Supports the Section/Division Head in matters related to the In-Kind Tools required for the assembly of the Tokamak Machine;- Manages the Procurement Arrangement for the purpose-built, tokamak assembly tools with the Korean Domestic Agency in collaboration with Project Control Office;- Maintains and implements the detailed work schedule for tooling supply, ensuring consistency between deliveries and need dates;- Co-ordinates the assigned IO resources and manages the associated engineering service contracts;- Contributes to the preparation and validation of assembly and installation processes, and ensures the compliance of tooling with technical requirements;- Participates in the review of the engineering designs of the tokamak systems, and ensures requirements and interfaces are clearly identified, defined and agreed;- Oversees the design and manufacturing activities;- Ensures design, procurement, certification and testing, operation and maintenance of the tooling is carried out in accordance with all applicable quality and safety requirements, and in compliance with the applicable Decrees, Directives and Codes and Standards;- Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan;- May be requested to be part of any of the project team and performs other duties upon management request;- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.
Measures of effectiveness	<ul style="list-style-type: none">- Reports to the Tokamak Assembly Section/Division Head;- Interfaces directly with all ITER Organization Departments and Offices;- Interfaces directly with the technical staff of the KO DA;- In response to requests from the Director-General and/or Construction Department Head, or proactively, informs the DG/Construction Department 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.- Elaborates, maintains and implements the plan for the supply of the In-Kind assembly tools;- Provides appropriate, timely and comprehensive expertise and progress reports;- Ensures proper codes & standards are implemented;- Generates and maintains coherent, comprehensive and understandable documentation;- Maintains effective liaison within the ITER Organization, and with the technical officers of the

KO DA;
- Implements the Procurement Arrangement within the defined schedule and cost.

Project construction phase

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Mechanical Eng. field or other relevant discipline
Level of experience	At least 10 years
Technical experience/knowledge	- Knowledge of the harmonized European codes and standards for the design, manufacture, testing and certification of machinery and tooling, including lifting tools;
	- Knowledge of French safety regulations pertaining to the certification and operation of lifting equipment is considered as an advantage.
	- At least 10 years' project engineering experience in the field of large capacity, high precision lifting, handling and alignment tooling systems;
	- Experience in the implementation of design and manufacturing processes in the product lifecycle;
	- Knowledge of Quality Assurance systems and their practical application;
	- Experience in the fusion related technologies, such as Ultra High Vacuum (UHV) and cryogenic applications would be desirable;
Social skills	- Experience of international procurement and tendering, and knowledge of contract law would be an advantage;
	- Solid experience in Project Management is required;
Languages	English (Fluent)
Specific skills	CATIA, ENOVIA, MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	- Proficiency in the use of the Microsoft Office suite of software;
	- Proficiency in the use of CATIA V5 and ENOVIA;
	- Experience of structural analysis software would be an advantage.

IO1679 In-Cash Assembly Tool Engineer CST-035

General information

Job category	Standard
Status	Published
Department	CST / Construction Department
Division	CST / Tokamak Assembly Section/Division

Job description

Main job	Engineering - Construction
Title of the position	In-Cash Assembly Tool Engineer CST-035
Job family	Coordinating Engineer
Grade	P4
Direct employment	Not required
Purpose	<ul style="list-style-type: none">- To support the Tokamak Assembly Section/Division Head in the design, procurement, operation and maintenance of the tooling required to assemble the Tokamak systems;- To ensure that the tooling is supplied and operated in accordance with the applicable quality, safety, technical and administrative requirements, and in line with the project cost and schedule baselines;- To provide effective leadership and guidance to the team of engineers and technicians assigned to complete the associated design and procurement activities.
Main duties / Responsibilities	<ul style="list-style-type: none">- Manages the design, procurement and operation of the Tokamak assembly tooling procured directly by ITER Organization (IO) (In-Cash);- Maintains and implements the design and procurement plan and resource loaded schedule for the tooling;- Co-ordinates the assigned IO resources and manages the associated engineering service contracts in collaboration with Procurement and Contracts Division;- Contributes to the preparation and validation of assembly and installation processes, identifies tooling requirements, and develops and implements cost effective solutions;- Participates in the review of the engineering designs of the Tokamak systems, and ensures requirements and interfaces are clearly identified, defined and agreed;- Prepares technical specifications for the supply of the assembly tooling, participates to the tender processes, and undertakes the management of those contracts;- Ensures design, procurement, certification and testing, operation and maintenance of the tooling is carried out in accordance with all applicable quality and safety requirements, and in compliance with the applicable Decrees, Directives and Codes and Standards;- Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan;- May be requested to be part of any of the project team and perform other duties upon management request;- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.
Measures of effectiveness	<ul style="list-style-type: none">- Reports to the Tokamak Assembly Section/Division Head;- Interfaces directly with all ITER Organization Departments and technical staff;- In response to requests from the Director-General and/or Construction Department Head, or proactively, informs the DG/Construction Department 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.- Effectively co-ordinates the assigned IO resources and manages associated contracts to deliver on-time designs, specifications and other documentation;- Ensures the delivery of the assembly tools respecting cost, performance, schedule and quality;- Ensures the on-time completion of assigned studies, reports and other deliverables.
	Project construction phase

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Mechanical Eng. field or other relevant discipline
Level of experience	At least 10 years
Technical experience/knowledge	<ul style="list-style-type: none"> - Knowledge of Codes and Standards for the design, manufacture, testing and operation of tooling systems, including lifting tools; - Knowledge of French certification procedures for lifting tools would be an advantage.
	<ul style="list-style-type: none"> - At least 10 years' experience in the design, manufacture and operation of large, high capacity tooling systems in large, complex construction projects; - Experience in a coordinating role is preferred; - Extensive knowledge of Quality Assurance systems and their practical application; - Experience in the fusion related technologies, such as Ultra High Vacuum (UHV) and cryogenic applications would be desirable; - Experience in project management and delivering to tight timescales.
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)
Specific skills	Ansysis, MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	<ul style="list-style-type: none"> - Computer literate and proficient in the use of the Microsoft Office software suite - Working knowledge of CAD systems, and the ANSYS structural analysis software.

IO1682 Tokamak Instrumentation Engineer CST-038

General information

Job category	Standard
Status	Published
Department	CST / Construction Department
Division	CST / Tokamak Assembly Section/Division

Job description

Main job	Engineering - Control system
Title of the position	Tokamak Instrumentation Engineer CST-038
Job family	Coordinating Engineer
Grade	P4
Direct employment	Not required
Purpose	<ul style="list-style-type: none">- To support the Tokamak Assembly Section/Division Head in the planning, preparation and implementation of the installation of the Instrumentation and Control systems located within the tokamak boundary.- To prepare, plan, coordinate and implement the installation of the Tokamak Instrumentation located inside cryostat.- To ensure that installation of the Instrumentation and Control systems and associated services are undertaken and completed in accordance with the applicable quality, technical and administrative requirements, and in line with the project cost and schedule baselines.- To develop an overall strategy for completing the installation and testing of the related hardware focusing on integration, logistics, schedule and cost and for ensuring system constructability through collaboration with the system designers.
Main duties / Responsibilities	<ul style="list-style-type: none">- Supports the Section/Division Head in all matters related to the installation of the instrumentation and control systems servicing the Tokamak;- Develops the special installation procedure for various Tokamak Instrumentations located inside cryostat and provides appropriate training on special installation process to selected contractors if it is necessary;- Contributes to the preparation of technical specifications, and participates to tendering processes;- Reviews the various contractor's documents such as technical documents/drawings, procedures, test & examination documents, schedule related documents, etc.;- Supervises day-to-day works being run by the contractor, controls work sequences or schedule and ensures work quality;- Ensures that interfaces are clearly defined, provides construction inputs and participates in the review of the engineering designs, provides expert guidance on design, installation and maintenance aspects;- Verifies constructability and construction readiness;- Ensures compliance with the applicable Decrees, Directives, Codes and Standards;- Coordinates with the centralized project schedule control team in establishing the construction master schedule, oversees the development of detail plans and schedules by works contractors;- Oversees the installation and testing of the instrumentation and control systems;- Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan;- May be requested to be part of any of the project team dealing with the above activities and performs other duties upon management request;- Maintains a string commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics. - Reports to the Tokamak Assembly Section/Division Head;- Interfaces directly with all ITER Organization Departments and Offices ;- Directly interfaces with project team at all levels;- In response to requests from the Director-General and/or Construction Department Head, or proactively, informs the DG/Construction Department Head of any important and urgent issues that cannot be handled by the concerned line management and may jeopardize the achievement

Measures of effectiveness	of the Project's objectives.
	<ul style="list-style-type: none"> - Elaborates, maintains and implements the assembly plan for the Tokamak Instrumentation; - Manages the installation contract for Tokamak Instrumentation to quality, schedule and cost; - Generates and maintains coherent, comprehensive and understandable documentation; - Maintains effective communication within the ITER Organization and with partner organizations; - Completes the objectives set in agreement with the Tokamak Assembly Section/Division Head on schedule and cost.
	Project construction phase

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Electronic Eng. field or other relevant discipline
Level of experience	At least 10 years
Technical experience/knowledge	<ul style="list-style-type: none"> - At least 10 years' professional experience in the management of development, installation and assembly of special sensors and cabling installed in UHV and cryogenic environments; - At least 5 years' professional experience in extreme engineering and technology is desirable; - Knowledge of various sensors using in extreme environments (high temperature, cryogenic temperature, high radiation, UHV condition etc.) and precision signal processing technology would be a strong advantage. - Experience of international procurement and tendering, and knowledge of contract law would be an advantage; - Experience in Project Management is required; - Demonstrated ability to deliver quality results on tight timescales.
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	<ul style="list-style-type: none"> - Proactive, with drive and initiative; - Ability to function effectively in a multi-cultural environment; - Ability to interface with team members at different levels; - Ability to write clear and concise reports;
Languages	English (Fluent)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	<ul style="list-style-type: none"> - Proficiency in the use of the Microsoft Office suite of software; - Experience of CAD, structural analysis and PLM software would be an advantage.

IO1674 IT Engineering Tools Coordinator CIO-052

General information

Job category	Standard
Status	Published
Department	CIO/ Central Integration Office
Division	CIO / Project Information System Section/Division

Job description

Main job	Computer Science - System Administration
Title of the position	IT Engineering Tools Coordinator CIO-052
Job family	Coordinating Officer
Grade	P4
Direct employment	Not required
Purpose	<p>- To coordinate the tools and teams in the Information Technology (IT) engineering, manufacturing and construction area. This includes specifically customization and administration of design tools (Enovia/Catia, Plant Design Management System (PDMS), and others), Product lifecycle management (PLM) integration, manufacturing, SmartPlant Solutions, material management, logistics and delivery organization.</p> <p>- Manages activities concerning the administration and customization of design tools, manufacturing and construction tools;</p> <p>- Coordinates the activities of staff working in the area of IT project tools (engineering, PLM Responsible Officers, Tool administrators) also including contract management on a delivery basis partly offshore (India, Germany, Tunisia);</p> <p>- Liaises with ITER Organization Central Team and Domestic Agency teams involved in engineering, manufacturing and construction tools;</p> <p>- Supports users in the IT engineering and construction area;</p> <p>- Rationalizes, unifies and integrates the tools used in the engineering domain also including Domestic Agency teams and their suppliers;</p> <p>- Is responsible for the IT activities concerning logistics, delivery (including in-kind procurement) & material management;</p> <p>- Organizes the support for SmartPlant Solutions (Materials, Construction, Owners and Operators);</p> <p>- Organizes the customization of Computer Aided Design tools with teams mostly offshore;</p> <p>- Is responsible for the IT services of the engineering and construction domain including user support, ticket resolution, documentation, and performance follow-up;</p> <p>- Is responsible for the project management in the IT project tools domain following Prince II;</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 project team 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 Project Information System Section/Division Head;</p> <p>- Acts as an interface between IT and other groups at ITER ;</p> <p>- In response to requests from the Director-General and/or Central Integration Office (CIO) Head, or proactively, informs the DG/ CIO 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.</p> <p>- Manages efficiently the administration and maintenance of design, manufacturing and construction tools;</p> <p>- Coordinates effectively IT internal and external activities in the area of engineering and construction being client oriented;</p> <p>- Contributes efficiently to a strong ITER project culture.</p>
Main duties / Responsibilities	
Measures of effectiveness	

Applicant criteria

Level of study	Master or equivalent degree
Diploma	IT field or other relevant discipline
Level of experience	At least 10 years
Technical experience/knowledge	<ul style="list-style-type: none"> - Knowledge of SmartPlant tool set (SPMAT, SPF, SPC, SPO) would be an advantage; - Knowledge in Microsoft server environment, programming & data interfaces would be an advantage.
	<ul style="list-style-type: none"> - At least 10 years' experience in the Information Technology field; - Experience in coordinating activities in the technical area of Information Technology; - Experience in large software system (like PLM); - Experience in carrying out large implementation projects (superior to 1 year) of tools in the engineering and construction domain into complex environments; - Experience in IT service delivery (ITIL) & user support; - Experience in system administration and software development; - Experience in an international scientific or engineering context would be an advantage. - Knowledge in customization & administration of design tools are considered important (specifically in Enovia/Catia would be an advantage); - Certifications in service management & project management are considered important;
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	<ul style="list-style-type: none"> - Excellent capability to interact with experts from different disciplines; - Organizational skills and autonomy for his/her of responsibility; - Flexible and proactive approach oriented on problem solving.
Languages	English (Fluent)

IO1680 Dimensional Control Engineer CST-036

General information

Job category	Standard
Status	Published
Department	CST / Construction Department
Division	CST / Construction Management Section/Division

Job description

Main job	Engineering - Metrology
Title of the position	Dimensional Control Engineer CST-036
Job family	Engineer - 2
Grade	P3
Direct employment	Not required
Purpose	<p>-To support the design and implementation of the global alignment and metrology strategy for ITER construction and the dimensional control of components.</p> <p>- Supports the development and implementation of the global alignment and metrology strategy for ITER, including on-site metrology, and the dimensional control of the Tokamak components during assembly;</p> <p>- Assists in the development and qualification survey processes and procedures, as necessary, to ensure fit-for-purpose data from the component manufacturing cycle to enable assembly alignment;</p> <p>- Assists in the development of the strategy for implementing manufacturing surveys with the ITER team, and with third-party inspectors;</p> <p>- Performs detailed design of the ITER site, pit, Tokamak, in-vessel datum systems and other sub-systems as necessary;</p> <p>- Develops processes and procedures for on-site assembly survey to ensure fit-for-purpose data;</p> <p>- Establishes and maintains data management and analysis protocols;</p> <p>- Prepares technical specifications and associated documentation for tenders, orders and instructions to proceed in liaison with the Procurement and Contracts Division and surveilles the work carried out by contractors</p>
Main duties / Responsibilities	<p>- Builds and maintains relationships with internal and external stakeholders;</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 and performs 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 Construction Management Section/Division Head;</p> <p>- Acts as an interface between with all other ITER Divisions/Departments/Offices, DA and Contractors;</p> <p>- In response to requests from the Director-General, 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>
Measures of effectiveness	<p>- Successfully elaborates, maintains and implements the Metrology Plan and Procedures within the defined schedule, cost and respecting quality requirements;</p> <p>- Communicates efficiently with other sections to provide effective dimensional control and metrology solutions;</p> <p>- Elaborates alignment strategies with traceable computations and documented processes.</p>
	Project Construction Phase

Applicant criteria

Level of study	Master or equivalent degree
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Diploma	Mechanical Engineering or equivalent
Level of experience	At least 8 years <ul style="list-style-type: none"> - Extensive experience in similar jobs, and/or additional training certificates in relevant domains may compensate a lower education level.
Technical experience/knowledge	<ul style="list-style-type: none"> - At least 8 years' experience in the application of 3-d metrology techniques to the alignment of large, complex, precise engineering structures; - Knowledge of project management methodologies; - Demonstrated ability to develop innovative solutions to complex engineering problems - Extensive knowledge of Quality Assurance systems and their practical application - Excellent safety record on previous projects.
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	<ul style="list-style-type: none"> - Ability to negotiate effectively in particular in relation to claims and disputes, to manage conflict and maintain efficient working relationships; - Ability to work in a team and to promote team work.
Languages	English (Fluent)
Others	<ul style="list-style-type: none"> -Fluent in English (written and spoken), in particular the ability to write technical and contractual documents - Experience using modern project management tools.

IO1681 Civil/Buildings Engineer CST-037

General information

Job category	Standard
Status	Published
Department	CST / Construction Department
Division	CST / Facilities, Logistics & Materials Division
Section	CST / FLM / Facilities Management Section

Job description

Main job	Engineering - Civil engineering
Title of the position	Civil/Buildings Engineer CST-037
Job family	Engineer - 2
Grade	P3
Direct employment	Not required
Purpose	<p>-To play a key role within the Facilities Management Section of the Facilities, Logistics & Materials (FLM) Division and support the Section Leader in the construction, operation, maintenance and upgrade of the buildings and related infrastructure necessary for the construction and operation of the ITER facility. Strategies for managing the demands for space and other facilities required for the construction phase of the project will need to be developed and implemented as well as ensuring that the ITER facility in its final configuration is fit for purpose, safe and compliant with all applicable regulatory requirements.</p> <p>- Works with the Section Leader and Division Head, develops strategies for ensuring that all demands for space and services during the construction phase of the project are documented and followed-up in order that construction activities by all stakeholders can be carried out in an efficient manner.</p> <p>- Prepares technical documentation including robust cost estimates for the preparation of new infrastructure or modifications to existing infrastructure as required.</p> <p>- Follows up the procurement and technical oversight of construction contracts for new works and/or modifications to existing infrastructure.</p> <p>- Liaises with other stakeholders including ITER Organization (IO) staff, IO contractors, Domestic Agencies and their contractors to ensure that the ITER infrastructure is compatible with the Project requirements.</p> <p>- Prepares technical specifications for operation & maintenance contracts across all areas of activity carried out by the Facilities, Logistics & Materials (FLM) Division which includes Nuclear and non-Nuclear buildings, building systems, drainage and water networks, roads, fences storage and other similar facilities.</p> <p>- Prepares procedures, working instructions & other management documents necessary for the operation of the ITER buildings & infrastructure with specific focus on those areas necessary to maintain the Safety Function of the ITER facility.</p> <p>- Undertakes on-site oversight activities & audits to ensure that construction activities are carried out in accordance with approved designs.</p> <p>- Ensures full traceability of activities from design through to as-built records;</p> <p>- Will be required to take part in the on-call duty service established by the ITER Organization outside normal working hours, including nights, weekends and public holidays;</p> <p>- Performs other duties in support of the project schedule as described in the Detailed Work Schedule & the Strategic Management Plan;</p> <p>- May be requested to be part of any of the project team & perform other duties upon management request;</p> <p>- Maintains a strong commitment to the implementation & perpetuation of the ITER Safety Program, values and ethics.</p>
Main duties / Responsibilities	<p>- Reports to the Facility Management (FMM) Section Leader;</p> <p>- Interacts with other Facilities Management (FMM) staff as well as other staff within the Facilities, Logistics & Materials (FLM) Division & the Construction Department;</p> <p>- Interacts with all IO Staff & staff of the Domestic Agencies upon specific request by FMM</p>

Measures of effectiveness	<p>Section Leader or FLM Division Head;</p> <ul style="list-style-type: none"> - In response to requests from the Director-General and/ Construction (CST) Department Head, proactively informs the DG and/or CST Department Head of any important & urgent issues that cannot be handled by the concerned line management & may jeopardize the achievement of the Project's objectives. - Compliance of assigned tasks to the ITER schedule; - Completion of technical responses within assigned timeframe; - Number of technical documents drafted reviewed and approved successfully; - Contribution to technical meetings and level of positive feedback from attendees including the drafting and issuing of accurate meeting records (minutes); - Recognition by others of technical and managerial expertise including being delegated the role of Section Leader and/ or Technical Co-coordinator as and when required.
	Project construction phase

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Civil, building eng. or other relevant discipline
Level of experience	At least 8 years
Technical experience/knowledge	<ul style="list-style-type: none"> - Extensive experience in similar jobs, &/or additional training certificates in relevant domains may compensate a lower education level. - At least 8 years' experience in the field of civil /building engineering, with a strong level of competence in both design & construction; - Experience of design & construction within a nuclear environment & to specific internationally recognized standards applicable to the Nuclear Buildings Industry such as GS-R-3 would be beneficial; - Experience of writing technical documentation in English & following up construction/installation contracts; - Experience of motivating & leading people to achieve outcomes and in managing technical meetings to achieve project goals; - Experience of project management concepts such as scheduling, Earned Value Management (EVM), task management; - Experience of problem solving in a multi-task environment to strict deadlines;
	Social skills
General skills	<ul style="list-style-type: none"> - Strong ability to effectively communicate, both verbally and in writing, with Officers at all levels distributed throughout the Organization; - Ability to work effectively in a multi-cultural environment; - Ability to motivate others; - Ability to make decisions under stressful circumstances; - Ability to work successfully in a team environment as well as alone.
Languages	English (Fluent)
Others	- IT skills consistent with requirements for managing a complex project.

IO1698 Upper Launcher Engineer TED-052

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Heating & Current Drive Division
Section	TED / HCD / Ion & Electron Cyclotron Section

Job description

Main job	Engineering - Mechanics
Title of the position	Upper Launcher Engineer TED-052
Job family	Engineer - 2
Grade	P3
Direct employment	Not required
Purpose	<p>- To be technical responsible officer (TRO) for the Electron Cyclotron (EC) Upper Launcher (UL). Furthermore, provide mechanical engineering support to the overall Electron Cyclotron (EC) system and the Equatorial Launcher (EL) developments. This task includes the design finalization of the EC upper launcher, preparation of technical specifications, system requirements, PA preparation and subsequent oversight of the PA activities leading to installation and operation of the UL. The UL-TRO will also be responsible for Quality Assurance (QA) support, design and Safety and manufacturing follow-up; development of installation, operation and maintenance plans.</p>
Main duties / Responsibilities	<ul style="list-style-type: none">- Performs the duties of the technical responsible officer for the Electron Cyclotron Upper Launcher (EC UL) procurement, which includes design finalization, Procurement Arrangement (PA) preparation, and oversight during the manufacturing, installation and commissioning phases followed by launcher operation;- Co-ordinates the development of the final design of the EC UL in collaboration with IO-CT (ITER Central Team) and IO-F4E (European Domestic Agency);- Documents the design requirements, load specification, Safety functions, requirements propagation and verification, and Quality plans of the UL (in collaboration with the EU-DA);- Ensures design compliance with ITER project requirements and with other ITER systems interfacing with the UL;- Monitors the final design development and prototype tests of the UL;- Co-ordinates the development of the draft qualification and test program of the UL in parallel with the prototype tests of the launcher, leading to a final qualification program associated with the manufacturing, assembly, installation and commissioning of the UL;- Assists in the monitoring of Quality Programs associated with the sub-system procurements;- Provides assistance in the above activities for the Equatorial Launcher (EL) development and overall EC system development;- Ensures tasks schedule compliance with EC design and procurement milestones;- Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan;- May be requested to be part of any of the project team and perform other duties upon management request;- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics. <p>- Reports to the Ion & Electron Cyclotron Section Leader;</p> <p>- Acts as an interface between the ITER Organization and the Domestic Agencies in developing/monitoring/evaluating contracts, task agreements and system development management;</p> <p>- In response to requests from the Director-General and/or Head of Tokamak Engineering Department (TED), or proactively, informs the DG/ TED 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.</p>

Measures of effectiveness	<ul style="list-style-type: none"> - Achieves the development of the UL final design progressing toward procurement as measured by the AWP and SMP milestones; - Improves and updates documentation management, quality compliance, system integration associated with the UL; - Develops within the defined schedule the technical specifications and procedures to ensure the Upper Launcher are compliant with IO requirements and Safety regulations; - Provides an effective technical support for the Electron Cyclotron system and subsystems.T
	Project Construction Phase

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Mechanical eng. field or other relevant discipline
Level of experience	At least 8 years
Technical experience/knowledge	<ul style="list-style-type: none"> - At least 8 years mechanical design experience &/or design on Heating Current Drive (HCD) system(s) - At least 5 years experience in technical integration of complex mechanical systems; - At least 5 years experience in mechanical engineering in areas relevant to the ITER environment (e.g. Remote handling, Ultra High Vacuum (UHV) environment, nuclear environment, high heat flux components);
	Project experience
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	<ul style="list-style-type: none"> - A solid background in thermal-mechanical applications (including high thermal heat loads & optimized cooling configuration), engineering standards (for example: RCC-MR, SDC-IC, ASME, EN, ASTM), regulation compliances (such as European Directives) & quality management (for example: ISO 9000s, IAEA GS-R-3, ASME NQA-1). Experience in design and development of high power heating system(s) on an existing fusion device (Stellarator or Tokamak) is highly beneficial, although equivalent experience developing a high power heating system in compliance with ITER nuclear & safety requirements would be sufficient; - Experience in mechanical & spectral analysis; - Participation in an Electron Cyclotron (EC) launcher development program is an advantage;
Languages	English (Fluent)
Specific skills	Ansys, CATIA, MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	<ul style="list-style-type: none"> - Experience using analytical programming, and Microsoft applications required. - Experience using CATIA, ANSYS and Microsoft Office applications.

IO1701 Mechanical Engineer TED-054

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Heating & Current Drive Division
Section	TED / HCD / Neutral Beam Section

Job description

Main job	Engineering - Mechanics
Title of the position	Mechanical Engineer TED-054
Job family	Engineer - 2
Grade	P3
Direct employment	Not required
Purpose	<ul style="list-style-type: none">- To be the technical responsible of the Neutral Beam Duct Liner and the Connecting Duct Liner.- To be responsible in coordinating the mechanical design activities for the Duct Liner and the Connecting Duct Liner. To ensure the mechanical interface management with the vacuum vessel and remote handling systems and ensure the interface management with cooling system in order to ensure the components will be properly cooled.- To follow up on the manufacturing design and manufacturing and testing activities which is directly relevant to the above components.
Main duties / Responsibilities	<ul style="list-style-type: none">- Prepares technical documentation necessary for Procurement Arrangement for the Duct Liner and Connecting Duct Liner;- Oversees the design activities covering the manufacturing design and manufacturing activities of the Duct Liner and Connecting Duct Liner, ensuring that this is carried out within cost and defined schedule;- Supports the Neutral Beam section leader in the preparation of the CAD work plan related to design activities for the Duct Liner and Connecting Duct Liner;- Provides any mechanical engineering task (design follow up, mechanical analyses) supporting the activities of the section;- Coordinates and direct design activities performed by the ITER Organization (IO) for the above components;- Manages all documentation to be delivered by the manufacturer during manufacturing phase according to IO Quality Assurance (QA) procedure;- Identifies and updates the interfaces within the section and with other systems;- Provides mechanical and seismic analyses for the Duct Liner and Connecting Duct Liner;- Provides thermos-mechanical analyses for the Duct Liner and Connecting Duct Liner;- Provides some hydraulic analyses for the Duct Liner and Connecting Duct Liner;- Assures the Remote Handling (RH) compatibility of the Duct Liner and Connecting Duct Liner liaising with IO RH section.- Proposes effective decisions on the mechanical design of the injectors in close collaboration with the section leader;- Ensures the production and the checking of the 2D drawings for Design review and Manufacturing Design Review and manufacturing phases;- Collaborates with others to contribute to the project activities related to Heating and Current Drive (H&CD);- Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan;- May be requested to be part of any of the project team and performs other duties upon management request;- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.- Reports to Neutral Beam Section Leader;- Acts as an interface between Neutral Beam section and other sections on the design of the

Measures of effectiveness	<p>mechanical components of the Duct Liner and Connecting Duct Liner especially for interfaces aspects;</p> <p>- In response to requests from the Director-General and/or Head of Tokamak Engineering Department (TED), or proactively, informs the DG/ TED 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.</p> <p>Ensures the completion of the mechanical design of the Duct Liner and Connecting Duct Liner and the follow-up of the mechanical aspects of their manufacturing;</p> <p>Ensures the mechanical integration of the Duct Liner and Connecting Duct Liner in the tokamak and ensures correct interfaces with remote handling systems;</p> <p>Provides effective support in the development of effective installation plans;</p> <p>Provides accurate ANSYS analyses for all neutral beam systems (seismic, fire loads, etc.) and other analyses for regulatory issues within the defined schedule;</p> <p>Supports efficiently the section in preparation of design review for duct liner.</p>
	Project construction phase

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Mechanical eng. field or other relevant discipline
Level of experience	At least 8 years
Technical experience/knowledge	<ul style="list-style-type: none"> - At least 8 years' experience mechanical design experience and/or design on Heating and Current Drive system(s); - At least 5 years' experience in technical integration of complex mechanical systems; - At least 5 years' experience in mechanical engineering in areas relevant to the ITER environment (e.g. Remote handling, Ultra High Vacuum environment, nuclear environment, high heat flux components); - Knowledge of Remote Handling system and technology is an advantage; - Knowledge of international and French industrial codes and standards (RCC-MR, ASME 8, SDC-IC, etc) and good appreciation of quality assurance procedures; - Experience in the technical design of Neutral beam injectors or tokamak components is considered an advantage; - Experience in manufacturing follow up & 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
General skills	<ul style="list-style-type: none"> - Fluent in English (written and spoken) - French language skills would be an advantage to prepare documents on regulatory issues.
Languages	English (Fluent)
Specific skills	CATIA, MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	<ul style="list-style-type: none"> - MS Office - CAD software including ANSYS proficiency. Knowledge of Catia V5 is an advantage.

IO1700 Mechanical Engineer TED-055

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Heating & Current Drive Division
Section	TED / HCD / Neutral Beam Section

Job description

Main job	Engineering - Mechanics
Title of the position	Mechanical Engineer TED-055
Job family	Engineer - 2
Grade	P3
Direct employment	Not required
Purpose	<p>To be the technical responsible of the Heating Neutral Beam injector (HNB) vessels and Passive Magnetic Shield (PMS) and Active Correction and Compensation Coils (ACCCs) and Fast Shutter (FS).</p> <p>To be responsible in coordinating the mechanical design activities for the HNB vessels and PMS, ACCCs and FS. To ensure the interfaces management between the mechanical components being procured by the relevant Domestic Agencies (DAs), for Japan (JADA) and Europe (F4E). To follow up on the manufacturing design and manufacturing and testing activities which is directly relevant to the above components.</p>
Main duties / Responsibilities	<p>Prepares technical documentation necessary for Procurement Arrangement for the Heating Neutral Beam (HNB) vessels and Passive Magnetic Shield (PMS) and Active Correction and Compensation Coils (ACCCs) and Fast Shutter (FS);</p> <p>Oversees the design activities covering the manufacturing design and manufacturing activities of the HNB vessels and PMS and ACCCs and FS, ensures that this is carried out within cost and defined schedule;</p> <p>Coordinates and directs design activities performed by the ITER Organization (IO) for the above components;</p> <p>Assesses the deliverables delivered by the Domestic Agencies (DAs) for the manufacturing of the above components;</p> <p>Manages all documentation to be delivered by the DAs for preparation and during manufacturing phase according to IO Quality Assurance (QA) procedure;</p> <p>Identifies and updates the interfaces within the section and with other systems;</p> <p>Provides mechanical and seismic analyses for the Heating Neutral Beam (HNB) components and also for other Neutral Beam activities as requested;</p> <p>Proposes effective decisions on the mechanical design of the injectors in close collaboration with the section leader;</p> <p>Shows strong commitment to the ITER safety program and enforces it through individual behavior in his organization;</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 project team and performs 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 Neutral Beam Section Leader;</p> <p>Acts as an interface between F4E and JADA on the design of the mechanical components of the HNB especially for interfaces between Heating Neutral Beam (HNB) Passive Magnetic Shield (PMS) and High Voltage (HV) Bushing and HV lines;</p> <p>In response to requests from the Director-General and/or Tokamak Engineering Department (TED) Head, or proactively, informs the DG/ TED Head of any important and urgent issues that cannot be handled by the concerned line management and may jeopardize the achievement of</p>

Measures of effectiveness	the Project's objectives.
	Writes accurate and high standards technical specifications for Heating Neutral Beam (HNB) vessels and Passive Magnetic Shield (PMS) and Active Correction and Compensation Coils (ACCCs) and Fast Shutter (FS) within the defined schedule;
	Monitors efficiently manufacturing contract of HNB vessels and PMS and ACCCs and FS and manage associated deliverables and QA documentation;
	Coordinates effectively activities of mechanical designer(s) in the Neutral Beam section and directs them in the design of the components;
	Ensures the mechanical design of the HNB Vessels and PMS and ACCCs and FS within the defined quality, cost and schedule;
	Manages effectively the interfaces between the F4E on the design of the mechanical components and the integration of these components into the Tokamak building.
	Provides effective support to the section in preparation of final design review and manufacturing design review of the NB vessels, PMS, ACCCs and FS.
	Project Construction Phase

Applicant criteria

Level of study	At least Master's Degree or equivalent
Diploma	Mechanical engineering field or other relevant dis
Level of experience	At least 5 years
Technical experience/knowledge	At least 8 years' experience mechanical design experience and/or design on Heating & Current Drive (HCD) system(s);
	At least 5 years' experience in technical integration of complex mechanical systems;
	At least 5 years' experience in mechanical engineering in areas relevant to the ITER environment (e.g. Remote handling, Ultra High Vacuum environment, nuclear environment, high heat flux components).
	Experience in mechanical and spectral analysis
	Knowledge of international and French industrial codes and standards (RCC-MR, ASME 8, SDC-IC, etc) and good appreciation of quality assurance procedures.
	Experience in manufacturing follow up and basic Project Management experience is required;
	Experience in the technical design of Neutral beam injectors or tokamak components is considered an advantage;
	Basic knowledge in magnetic shielding is considered an advantage.
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	Proficient at writing technical reports and design guidelines
Languages	English (Fluent)
Specific skills	Ansys, CATIA
Others	Experience using analytical programming, and Microsoft applications required. Experience using CATIA V5, ANSYS applications.

IO1697 Magnet Engineer TED-057

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Magnet Division
Section	TED / MAG / PF Coil Section

Job description

Main job	Engineering - Mechanics
Title of the position	Magnet Engineer TED-057
Job family	Engineer - 2
Grade	P3
Direct employment	Not required
Purpose	<p>To assist Poloidal Field (PF) magnet Technical Responsible Officers (TROs) for Procurement Arrangements in organizing and following up magnet production at Domestic Agencies (DAs) and suppliers.</p> <p>To be responsible for review of PF magnet production and Quality Assurance / Quality Control (QA/QC) documents.</p> <p>To oversee implementation of PF magnet QA/QC at DAs and suppliers.</p> <p>To contribute to resolution of problems and non-conformities arising during PF magnet production at DAs and suppliers.</p> <p>To contribute to development of PF assembly plan and documentation.</p>
Main duties / Responsibilities	<p>Oversees development and implementation of PF coil manufacturing and Quality Assurance / Quality Control (QA/QC) plans at magnet suppliers;</p> <p>Reviews PF coil manufacturing drawings, procedures and QA/QC documents generated by Domestic Agencies (DAs) and their suppliers;</p> <p>Reviews manufacturing, quality and test records generated by PF magnet suppliers;</p> <p>Witnesses critical activities at magnet supplier;</p> <p>Contributes to problem solving during magnet production and resolution/assessment of non-conformities reports;</p> <p>Contributes to development of assembly and inspection plans for PF magnet components;</p> <p>Contributes to development of PF assembly procedures;</p> <p>Contributes to verification, mock-ups and prototyping activities at the Magnet Workshop;</p> <p>Contributes to updates of PF magnet baseline documentation and interface sheets;</p> <p>Performs other duties in the 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 and performs 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 PF Section Leader;</p> <p>Interfaces with magnet Procurement Arrangement (PA) Technical Responsible Officers (TROs) and Responsible Officers (ROs) in all sections of the Magnet Division;</p> <p>Interfaces with other departments as required by the magnet production, in particular with the CAD Office, the Cryogenic and Electrical Divisions, the Design Office and the Assembly;</p> <p>In response to requests from the Director-General and/or Tokamak Engineering Department (TED) Head, or proactively, informs the DG/ TED 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.</p> <p>Supports magnet Procurement Arrangement monitoring;</p> <p>Contributes to manufacturing and QA/QC plan development and implementation within the defined quality, cost and schedule requirements;</p> <p>Provides and drafts accurate manufacturing drawings, procedures and QA/QC document</p>

Measures of effectiveness	reviews; Contributes efficiently to solve problems and Non-Conformance Report (NCR) resolution at magnet suppliers; Contributes effectively to assembly plan and procedure development.
	Project Construction Phase

Applicant criteria

Level of study	At least Master's Degree or equivalent
Diploma	Engineering
Level of experience	At least 8 years
Technical experience/knowledge	At least 8 years' experience in design, manufacture, assembly and integration of superconducting magnet and cryogenics systems; Experience in assembly work and heavy duty handling of large structure with tight tolerances; Familiarity of non-destructive examination techniques such as visual inspection, dye penetrant inspection, helium leak detection, ultrasonic inspection, and radiographic examination of welds and brazes, and applicable codes and standards for the implementation and acceptance criteria; Experience with international codes and standards such as ISO, EN, RCC-MR, ASTM and ASME for construction of pressure equipment and/or nuclear equipment; Experience / knowledge in assembly of large components operated at cryogenic temperature and affected by high hydraulic pressure and mechanical loads; Knowledge / experience in high voltage insulation using glass fiber reinforced composite material for cryogenic application and high voltage test of insulation is a plus;
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 - Good project Management knowledge is required; Good knowledge in structural, thermo-mechanical and thermo-hydraulic design, analysis and engineering assessment;
General skills	Mechanical, material and electrical knowledge is a plus. Ability to both work in a team and coordinate / supervise a group of professionals; Ability to communicate clearly and write technical reports and specifications in English;
Languages	English (Fluent)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)

IO1693 Magnet Engineer TED-060

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Magnet Division
Section	TED / MAG / TF Coil Section

Job description

Main job	Engineering - Mechanics
Title of the position	Magnet Engineer TED-060
Job family	Engineer - 2
Grade	P3
Direct employment	Not required
Purpose	<p>To assist Toroidal Field (TF) magnet Technical Responsible Officers (TROs) in organizing and following up magnet production at Domestic Agencies (DAs) and suppliers.</p> <p>To review of TF magnet production and Quality Assurance / Quality Control (QA/QC) documents.</p> <p>To oversee implementation of TF magnet QA/QC at DAs and suppliers.</p> <p>To contribute to resolution of problems and non-conformities arising during TF magnet production at DAs and suppliers.</p> <p>To contribute to development of TF assembly plan and documentation.</p>
Main duties / Responsibilities	<p>Oversees development and implementation of Toroidal Field (TF) coil manufacturing and Quality Assurance / Quality Control (QA/QC) plans at magnet suppliers;</p> <p>Reviews TF coil manufacturing drawings, procedures and QA/QC documents generated by Domestic Agencies (DAs) and their suppliers;</p> <p>Reviews manufacturing, quality and test records generated by TF magnet suppliers;</p> <p>Witness critical activities at magnet supplier;</p> <p>Contributes to problem solving during magnet production and resolution/assessment of non-conformities reports;</p> <p>Contributes to development of assembly and inspection plans for TF magnet components;</p> <p>Contributes to development of TF assembly procedures;</p> <p>Contributes to verification, mock-ups and prototyping activities at the Magnet Workshop;</p> <p>Contributes to updates of TF magnet baseline documentation and interface sheets;</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 and performs 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 TF Section Leader;</p> <p>Interfaces with magnet Procurement Arrangement (PA) Technical Responsible Officers (TROs) and Responsible Officers (ROs) in all sections of the Magnet Division.</p> <p>Interfaces with other departments as required by the magnet production, in particular with the CAD Office, the Cryogenic and Electrical Divisions, the Design Office and the Assembly.</p> <p>In response to requests from the Director-General and/or Tokamak Engineering Department (TED) Head, or proactively, informs the DG/ TED 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.</p> <p>Supports magnet Procurement Arrangement monitoring;</p> <p>Contributes to manufacturing and Quality Assurance / Quality Control (QA/QC) plan development and implementation within the defined quality, cost and schedule requirements;</p> <p>Contribute efficiently to manufacturing drawings, procedures and QA/QC document review;</p> <p>Contribute to problem solving and Non-Conformance Report (NCR) resolution at magnet suppliers;</p> <p>Contribute effectively to assembly plan and procedure development.</p>

Applicant criteria

Level of study	At least Master's Degree or equivalent
Diploma	Engineering
Level of experience	At least 8 years
Technical experience/knowledge	<p>At least 8 years' experience in design, manufacture, assembly and integration of superconducting magnet and cryogenics systems;</p> <p>Practical experience in assembly work and heavy duty handling of large structure with tight tolerances;</p> <p>Familiarity of non-destructive examination techniques such as visual inspection, dye penetrant inspection, helium leak detection, ultrasonic inspection, and radiographic examination of welds and brazes, and applicable codes and standards for the implementation and acceptance criteria;</p> <p>Experience with international codes and standards such as ISO, EN, RCC-MR, ASTM and ASME for construction of pressure equipment and/or nuclear equipment;</p> <p>Experience / knowledge in assembly of large components operated at cryogenic temperature and affected by high hydraulic pressure and mechanical loads;</p> <p>Knowledge / experience in high voltage insulation using glass fiber reinforced composite material for cryogenic application and high voltage test of insulation is a plus</p>
Project experience	4 to 5 years
Social skills	<p>Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit</p> <p>Good knowledge in structural, thermo-mechanical and thermo-hydraulic design, analysis and engineering assessment;</p>
General skills	<p>Mechanical, material and electrical knowledge is a plus.</p> <p>Ability to both work in a team and coordinate / supervise a group of professionals;</p> <p>Ability to communicate clearly and write technical reports and specifications in English;</p>
Languages	English (Fluent)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)

IO1694 Feeders Mechanical Engineer TED-059

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Magnet Division
Section	TED / MAG / Superconductor Systems & Auxiliaries Section

Job description

Main job	Engineering - Mechanics
Title of the position	Feeders Mechanical Engineer TED-059
Job family	Engineer - 2
Grade	P3
Direct employment	Not required
Purpose	<p>To monitor the Magnet Feeders procurement and assembly, including interfaces, coordination of assembly tasks, preparation of assembly documentation, management of resources, and development/implementation of quality assurance and quality control for procurement and assembly.</p> <p>Manages the interface design in the 3D CAD model and interface drawings; Assesses the assembly tolerance and tolerance mitigation, of manufacturability, and of impact to feeder functionality of changes in these; Assesses the structural, thermos-mechanical, and thermos-hydraulic analyses to verify the integration of Feeders assembly;</p> <p>Manages the interface control documents for the Feeder component interfaces, and coordination of responsibilities for on-site assembly between Magnet Feeders assembly team and ITER plant construction team;</p> <p>Is Responsible for planning and management of on-site assembly activities, writing Feeders assembly and inspection plans including detailed procedures with technical acceptance criteria; Develops assembly resource management plan and quality control plan, and contributes to development/implementation of Manufacturing Database modules for feeder assembly; Supervises of the on-site assembly activities to execute assembly and inspection plans; Provides technical support for assembly issues and manufacturing quality control to the Feeder assembly task at ITER work site and component manufacturing work at Domestic Agency (DA) contractor's site;</p> <p>Provides engineering assessment on components interaction with Feeders DA's assembly tooling and shipping tooling and contribution to design optimization and risk mitigation as needed; Monitors Feeders DA's assembly tooling qualification and contributes to the manufacturing readiness assessment;</p> <p>Coordinates assembly technicians' activity to install Feeder components, supports and instrumentation, and diagnostic wires/cables; Reviews Feeder-relevant, on-site assembly and inspection plans and procedures supplied by ITER assembly group and other component supplying teams; Assesses the interaction of Feeders component with on-site assembly tooling supplied by ITER assembly team and contributes to design improvement and risk mitigation as needed; Assists the Feeder Technical Responsible Officer in the execution and follow-up of on-site and DAs procurement acceptances;</p>
Main duties / Responsibilities	<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 be part of any of the project team and performs 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 Superconductor Systems&Auxiliaries Section Leader; Acts as an interface between sections in the Magnet Division and other Divisions in the</p>

Measures of effectiveness	<p>Department;</p> <p>Interfaces with other Departments as required by the Feeders design, in particular with the CAD office, integration and assembly teams;</p> <p>Interfaces with the Domestic Agencies' officers and their industries regarding fabrication as requested.</p> <p>In response to requests from the Director-General and/or Head of Tokamak Engineering Department (TED), or proactively, informs the DG/ Head of TED 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>Timely generates Feeders assembly and inspection plan and procedures, review of Feeders manufacture dossiers, and tooling design within the defined cost;</p> <p>Coordinates efficiently Feeders assembly activities;</p> <p>Generates and maintains accurate, coherent, comprehensive and understandable documentation;</p> <p>Maintains effective communication within the ITER Organization.</p>
	Project Construction Phase

Applicant criteria

Level of study	At least Master's Degree or equivalent
Diploma	Mechanical Engineering or other relevant disciplin
Level of experience	At least 8 years
Technical experience/knowledge	<p>Knowledge in structural, thermos-mechanical and thermo-hydraulic design, analysis and engineering assessment.</p> <p>At least 8 years' experience in design, manufacture, assembly and integration of large bolted / welded mechanical components and/or nuclear devices;</p> <p>Practical experience in assembly work and heavy duty handling of large structure with tight tolerances;</p> <p>Familiarity of non-destructive examination techniques such as visual inspection, dye penetrant inspection, helium leak detection, ultrasonic inspection, and radiographic examination of welds and brazes, and applicable codes and standards for the implementation and acceptance criteria;</p> <p>Experience with international codes and standards such as ISO, EN, RCC-MR, ASTM and ASME for construction of pressure equipment and/or nuclear equipment;</p> <p>Experience / knowledge in assembly of large components operated at cryogenic temperature and affected by high hydraulic pressure and mechanical loads.</p>
	Project experience
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	<p>Project Management knowledge are required;</p> <p>Knowledge / experience in high voltage insulation using glass fiber reinforced composite material for cryogenic application and high voltage test of insulation is a plus;</p> <p>Ability to both work in a team and coordinate - a group of professionals;</p> <p>Ability to communicate clearly and write technical reports and specifications in English;</p>
Languages	English (Fluent)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)

IO1692 Mechanical Engineer TED-061

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Magnet Division
Section	TED / MAG / Superconductor Systems & Auxiliaries Section

Job description

Main job	Engineering - Mechanics
Title of the position	Mechanical Engineer TED-061
Job family	Engineer - 2
Grade	P3
Direct employment	Not required
Purpose	<p>To elaborate the detailed engineering of the In-Vessel Coils, from design to manufacture and assembly inside the vacuum vessel, manage the interfaces with the Vacuum-Vessel (VV), support their procurement, to contribute to the development of the baseline documentation and oversee the development/implementation of quality assurance and quality control.</p>
Main duties / Responsibilities	<p>Responsible for some aspects of the design of the in-vessel coils; Implements aspects of the in-vessel-coils within the vacuum vessel; Manages interfaces with in-vessel components; Develops the assembly plan of the Edge Localized Mode (ELM) coils and of the in-situ manufacturing plan of the VS coils; Contributes to the design and develop the assembly plan of the feeders; Follows the design of full-size mock-up(s) for assembly and in-situ manufacturing trials. Supervises production of the 3D CAD models, and of the engineering and interface drawings; Prepares assembly tolerance assessments and means of tolerance mitigation; Contributes to preparation of Intermediate and Final Design Reviews; coordinates resolution of review chits; Coordinates structural, thermo-mechanical, and fatigue analyses; Supports preparation of calls for tender for procurement of the in-vessel coils and supports monitoring of in-vessel coil production; Supervises manufacture, installation and operation of full-size mock-ups; Supports development of baseline documents, such as design description document, design plan and interface sheets; Monitors qualification and testing of critical procedures and sub-assemblies; Contributes to development of Assembly Inspection Plans; Develops/implements quality assurance and quality control for all the above activities; Develops/implements manufacturing database modules for in-vessel-coil related activities; Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan May be requested to be part of any of the project team dealing with above activities and perform other duties upon management request; 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 Superconductor Systems & Auxiliaries Section Leader; Acts as an interface between sections in the Magnet Division and other Divisions in the Department; Interfaces with other Departments as required by the In-Vessel coil design, in particular with the CAD office, integration and assembly teams; Interfaces with industries regarding fabrication and quality control as requested; In response to requests from the Director-General and/or Head of Tokamak Engineering Department (TED), or proactively, informs the DG/ Head of TED 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>

Timely develops design plan; design description documents and interface sheets;
 Timely generates CAD models, engineering and assembly drawings;
 Timely organizes intermediate and final design reviews of in-vessel coil system;
 Timely develops assembly plans and of assembly and inspection plans;
 Timely realizes critical qualification and testing
 Timely realizes full-size mock-up trials;
 Timely develops/implements of quality control plans.

Project Construction Phase

Applicant criteria

Level of study	At least Master's Degree or equivalent
Diploma	Mechanical Engineering or other relevant disciplin
Level of experience	At least 8 years
Technical experience/knowledge	Knowledge in structural and thermo-mechanical design, analysis and engineering assessment; manufacturing and assembly of large components; welding and brazing technologies .
	At least 8 years' experience in design, analysis, manufacture, assembly and integration of electro magnets and/or of large bolted/welded mechanical components;
	Expce in CAD and/or engineering/manufacturing drawing production and review would be an advantage;
	Expce in production and/or assembly of electro magnets and/or of large bolted/welded mechanical would be an advantage;
Project experience	Familiarity of non-destructive examination techniques (eg visual inspection, dye penetrant inspection, helium leak detection, ultrasonic inspection, and radiographic examination of welds and brazes, applicable codes & standards for the implementation & acceptance criteria;
	Expce with international codes and standards such as ISO, EN, RCC-MR, ASTM and ASME for construction of pressure equipment and/or nuclear equipment.
Social skills	2 to 4 years
General skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
	Ability to both work in a team and coordinate a group of professionals; Ability to communicate clearly and write technical reports and specifications in English;
Languages	Basic knowledge in project management is required.
Specific skills	English (Fluent)
	CATIA, MS Office standard (Word, Excel, PowerPoint, Outlook)

IO1691 Diagnostic Port Integration Officer TED-062

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Port Plugs & Diagnostics Integration Division
Section	TED / PPD / Common Port Plug Engineering Sub-Section

Job description

Main job	Engineering - Diagnostics
Title of the position	Diagnostic Port Integration Officer TED-062
Job family	Engineer - 2
Grade	P3
Direct employment	Not required
Purpose	<p>To develop port integration and integration of port-based diagnostic systems with ITER Organization (IO) and Domestic Agencies (DAs). To follow-up the technical work of port integration between IO and DAs and with other interfaces. To identify requirements and interfaces for Diagnostic Ports under integration to ensure engineering and maintenance solutions for the tenant systems.</p>
Main duties / Responsibilities	<p>Identifies requirements and interfaces for Diagnostic Ports under integration to ensure engineering and maintenance solutions for the tenant systems and services;</p> <p>Develops the integration of port-based diagnostics inside diagnostic ports (upper, equatorial and lower) both at ITER Organization (IO) and with Domestic Agencies (DAs);</p> <p>Prepares technical specifications and documents as required in preparation for Diagnostic Shield Modules, Lower Port Diagnostic Racks and Port Cell structures manufacturing for IO-owned ports;</p> <p>Leads analysis of mechanical and thermal stresses, stresses due to electro-magnetic forces, dynamic analysis, neutronics assessment for integrated ports;</p> <p>Coordinates the design of diagnostic port interfaces with main tokamak interfaces (vacuum, cooling, buildings, remote handling etc);</p> <p>Follows-up and uses project engineering tools for the procurement of diagnostic ports with industry;</p> <p>Prepares for the installation of the diagnostic ports on ITER;</p> <p>Updates and takes through review all relevant supporting engineering documents;</p> <p>Supports or leads the Design Review processes, as appropriate;</p> <p>Checks and maintains relevant ITER databases;</p> <p>Reports variances on all technical, cost and schedule aspects immediately to the Sub-Section Leader/Division Head;</p> <p>Supports effective risk identification and management;</p> <p>Manages the change control process for his/her scope of work and communicates changes to the line management;</p> <p>Maintains related documentation at all times on the ITER Document System and ensure it is updated and in the correct formats.</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work Schedule or Strategic Management Plan;</p> <p>May be requested to be part of any of the project team and performs 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 directly to the Common Port Plug engineering Sub-Section Leader;</p> <p>Interfaces with other ITER Technical Departments, as required;</p> <p>Maintains communication with other organizations within the ITER collaboration and the fusion community;</p> <p>Ensures integration with other technical interfaces;</p> <p>In response to requests from the Director-General and/or Head of Tokamak Engineering</p>

Measures of effectiveness	Department (TED), or proactively, informs the DG/ TED 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"> Work packages completed to agreed deadlines; Developed and approved interface documentation, schematics plans and databases; Developed and approved technical documentation for procurement; Developed and approved installation plans; Successful collaborates with technical partners in Domestic Agencies and other Directorates at ITER Organization (IO); Efficient work at all times with other Diagnostics team members.
Project Construction Phase	

Applicant criteria

Level of study	At least Master's Degree or equivalent
Diploma	Mechanical engineering or in nuclear engineering
Level of experience	At least 8 years
Technical experience/knowledge	<ul style="list-style-type: none"> At least 8 years' experience in diagnostic engineering (incl. 3 in project/ system engineering); Experience in a nuclear-relevant field; Experience in mechanical engineering design for integrated tokamak systems; Experience in application of recognized engineering codes and standards; Experience in manufacturing of diagnostic components; Experience with the technical follow-up of CAD activity; (Familiarity with CAD oversight; Familiarity with P&I Diagrams) Proven planning and costing ability for mechanical systems; Organization and design defense lead in technical design reviews; Ability to generate specifications for procurement and manufacturing follow-up.
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	Proven presentation writing skills.
Languages	English (Fluent)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)

IO1690 Plasma Wall Diagnostician TED-063

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Port Plugs & Diagnostics Integration Division
Section	TED / PPD / In-Vessel Diagnostics Section

Job description

Main job	Fusion - Science or Technology
Title of the position	Plasma Wall Diagnostician TED-063
Job family	Scientist-2
Grade	P3
Direct employment	Not required
Purpose	<p>To manage the Tritium Monitor, Residual Gas Analysis, Pressure Gauge, Bolometer, and Thermocouple projects. To organize and verify all supporting work, including R&D and manufacturing for the Tritium monitor and Thermocouples. To maintain interfaces for all five systems. To plan all related assembly and commissioning activities.</p> <p>Manages the Tritium Monitor and Thermocouple projects; Leads the supply of the system; Specifies all system requirements; Determines, organizes and executes all supporting R&D; Manages the hardware and software direct procurement activity; Manages the commissioning preparation activities; Plans and specifies assembly and integration activities on site; Develops the detailed design of Tritium Monitor and Thermocouples; Develops calibration strategies in the context of systems; Develops the design of interfaces; Drives and contributes to relevant integration activities; Specifies and oversees the creation and updates of 2D-diagrams; Updates and takes through review all relevant supporting engineering documents; Leads the design review processes; Prepares technical specifications for procurement with industry; Checks and ensures maintenance of relevant ITER databases.</p> <p>Oversees construction of the Residual Gas Analysis, Pressure Gauge and supports Bolometer systems; Provides oversight to DA activities; Leads interfaces and other IO activities; Manages the commissioning preparation activities; Plans and specifies assembly and integration activities on site; Ensures Domestic Agencies (DA) and ITER Organization (IO) schedules are compatible at all times; Monitors service contracts including visits and deliverables; Communicates with other organizations within the ITER collaboration and the fusion community; Reports variances on all technical, cost and schedule aspects immediately to the Section Leader;</p>
Main duties / Responsibilities	<p>Maintains related documentation at all times on the ITER Document System and ensure it is updated and in the correct formats; Ensures the Division is well represented from an engineering perspective; Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan; May be requested to be part of any of the project team and performs other duties upon</p>

Measures of effectiveness	<p>management request;</p> <p>Maintains a strong commitment to the implementation and perpetuation of the ITER safety program, values and ethics;</p> <p>Reports directly to the In-Vessel Section Leader;</p> <p>Interfaces with ITER Technical Departments, as required;</p> <p>In response to requests from the Director-General and/or Head of Tokamak Engineering Department (TED), or proactively, informs the DG/ TED 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.</p> <p>Work packages completed to agreed deadlines;</p> <p>Developed and approved interface documentation, schematics plans and databases;</p> <p>Developed and approved technical documentation for procurement;</p> <p>Developed and approved installation plans;</p> <p>Successful collaboration with technical partners in Domestic Agencies and other Directorates at ITER Organization (IO);</p> <p>Efficient work at all times with other Diagnostics team members.</p>
	Project Construction Phase

Applicant criteria

Level of study	PhD or equivalent degree
Diploma	Physics or Engineering
Level of experience	At least 6 years
Technical experience/knowledge	<p>At least 6 years' experience in a fusion-related field;</p> <p>Proven experience in the design of plasma-wall diagnostic systems;</p> <p>Proven experience in the design or operation of laser-based diagnostics;</p> <p>Proven participation in fusion experimental operations;</p> <p>Documented expertise in plasma boundary and plasma wall interaction physics;</p> <p>Experience in coordinating teams' activities;</p> <p>Ability to project costs and resources for technical projects;</p> <p>Experience with design defense in technical design reviews;</p> <p>Experience with the technical follow-up of CAD activity;</p> <p>Familiarity with electrical diagrams;</p> <p>Basic knowledge of nuclear effects on materials</p>
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	Proven presentation writing skills;
Languages	English (Fluent)
Specific skills	CATIA, MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	<p>Familiarity with CATIA;</p> <p>Experience with requirements management software (eg DOORS);</p> <p>MS Office standard (Word, Excel, PowerPoint, Outlook).</p>

IO1689 Vacuum Electrical Engineer TED-064

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Port Plugs & Diagnostics Integration Division
Section	TED / PPD / In-Vessel Diagnostics Section

Job description

Main job	Engineering - Vacuum technologies
Title of the position	Vacuum Electrical Engineer TED-064
Job family	Engineer - 2
Grade	P3
Direct employment	Not required
Purpose	<p>To manage the procurement of Electrical Services for diagnostics. To update and maintain all relevant documentation. To supervise the design, R&D and direct procurement of ITER Organization (IO)-supplied vacuum-compatible and safety-rated electrical feedthroughs. To drive common engineering and maintenance solutions for the electrical systems and structures. To plan all related assembly and commissioning activities.</p> <p>Monitors the procurement of Electrical Services for vessel and cryostat diagnostics; Leads the supply of the systems (looms, support structures, feedthroughs, connectors); Ensures all technical requirements are recorded; Organizes and executes any supporting R&D; Manages the commissioning preparation activities; Plans and specifies assembly and integration activities on site; Updates and maintains all relevant interfaces including all vacuum vessel client systems; Develops the design of interfaces of the sensors with the main tokamak components Monitors compliance of supply with all technical requirements; Ensures Domestic Agencies (DAs) and ITER Organization (IO) schedules are compatible at all times.</p> <p>Develops the detailed design of the port feedthroughs; Proposes and maintains all technical specifications; Develops and executes the safety-important qualification plan; Drives and contributes to relevant integration activities; Updates and maintains all relevant interfaces including all vacuum vessel client systems;</p> <p>Specifies and oversees the creation and updates of electrical diagrams; Updates and takes through review all relevant supporting engineering documents; Leads the design review processes; Prepares technical specifications for procurement with industry; Checks and ensures maintenance of relevant ITER databases. Monitors service contracts including visits and deliverables; Communicates with other organizations within the ITER collaboration and the fusion community; Reports variances on all technical, cost and schedule aspects immediately to the Section Leader;</p> <p>Supports effective risk identification and management; Manages the change control process for his/her scope of work and communicates changes to the line management; Maintains related documentation at all times on the ITER Document System and ensures it is updated and in the correct formats.</p>
Main duties / Responsibilities	<p>Maintains related documentation at all times on the ITER Document System and ensure it is updated and in the correct formats; Ensures the Division is well represented from an engineering perspective;</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</p>

Measures of effectiveness	<p>performs other duties upon management request; Maintains a strong commitment to the implementation and perpetuation of the ITER safety program, values and ethics.</p> <p>Reports directly to the In-Vessel Section Leader; Interfaces with ITER Technical Department, as required; In response to requests from the Director-General and/or Head of Tokamak Engineering Department (TED), or proactively, informs the DG/ TED 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.</p> <p>Work packages completed to agreed deadlines; Developed and approved interface documentation, schematics plans and databases; Developed and approved technical documentation for procurement; Developed and approved installation plans; Successful collaboration with technical partners in Domestic Agencies and other Directorates at ITER Organization (IO); Efficient work at all times with other Diagnostics team members.</p>
	Project Construction Phase

Applicant criteria

Level of study	At least Master's Degree or equivalent
Diploma	Engineering or equivalent
Level of experience	At least 8 years
Technical experience/knowledge	<p>At least 8 years' experience in nuclear / mechanical / electrical engineering; At least 3 years' experience in a fusion-related field; Documented experience with design of Ultra High Vacuum (UHV) systems Documented experience with design of mineral-insulated cable systems; Documented experience with requirements gathering and verification; Documented experience in coordination of teams' activities; Documented experience with safety-relevant design reviews and qualifications; Experience with the technical follow-up of CAD activity; Ability to project costs and resources for technical projects; Familiarity with nuclear effects on materials; Familiarity with electrical diagrams;</p>
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	<p>Proven presentation writing skills; Track record of first author publications in English;</p>
Languages	English (Fluent)
Specific skills	CATIA, MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	<p>Familiarity with CATIA; Experience with requirements management software (DOORS or similar); MS Office standard (Word, Excel, PowerPoint, Outlook).</p>

IO1688 Diagnostic Engineering Physicist TED-065

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Port Plugs & Diagnostics Integration Division
Section	TED / PPD / In-Vessel Diagnostics Section

Job description

Main job	Fusion - Science or Technology
Title of the position	Diagnostic Engineering Physicist TED-065
Job family	Scientist-2
Grade	P3
Direct employment	Not required
Purpose	<p>To manage the procurement arrangements for Low Field Side Reflectometry (LFSR), High Field Side Reflectometry (HFSR), Plasma Position Reflectometry (PPR) and Soft X-ray (SXR) systems. To maintain interfaces for all four systems. To supervise the design, R&D and direct procurement of IO-supplied components, such as stray mm-wave (ECH) sensors and metallic (Be) windows. To organize and verify all supporting calculations. To plan and agree all necessary assembly and commissioning activities for these systems.</p> <p>Oversees construction of the Low Field Side Reflectometry (LFSR), High Field Side Reflectometry (HFSR), Plasma Position Reflectometry (PPR) and Soft X-ray (SXR) systems; Provides oversight to Domestic Agency (DA) activities; Leads interfaces and other ITER Organization (IO) activities; Manages the commissioning preparation activities; Plans and specifies assembly and integration activities on site; Ensures Domestic Agency (DA) and ITER Organization (IO) schedules are compatible at all times; Manages supporting ITER Organization (IO) projects (stray mm-wave (ECH) sensors and metallic (Be) windows); Leads the supply of the system; Specifies all system requirements; Determines, organizes and executes all supporting R&D and qualification processes; Manages the hardware and software direct procurement activity; Manages the commissioning preparation activities; Plans and specifies assembly and integration activities on site;</p> <p>Develops the detailed design of stray mm-wave (ECH) sensors and metallic (Be) windows; Develops calibration strategies in the context of systems; Develops the design of interfaces; Drives and contributes to relevant integration activities; Specifies and oversees the creation and updates of 2D diagrams and CAD models; Updates and takes through review all relevant supporting engineering documents; Leads the design review processes; Prepares technical specifications for procurement with industry; Checks and ensures maintenance of relevant ITER databases. Monitors service contracts including visits and deliverables; Reports variances on all technical, cost and schedule aspects immediately to the Section Leader; Supports effective risk identification and management; Manages the change control process for the work and communicates changes to the line management;</p>
Main duties / Responsibilities	<p>Maintains related documentation at all times on the ITER Document System and ensure it is updated and in the correct formats; Ensures the Division is well represented from an engineering perspective;</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work</p>

Measures of effectiveness	<p>Schedule and the Strategic Management Plan;</p> <p>May be requested to be part of any of the project team and performs 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 directly to the In-Vessel Section Leader;</p> <p>Interfaces with ITER Technical Departments, as required;</p> <p>Communicates with other organizations within the ITER collaboration and the fusion community;</p> <p>In response to requests from the Director-General and/or Head of Tokamak Engineering Department (TED), or proactively, informs the DG/ TED 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.</p> <p>Work packages completed to agreed deadlines;</p> <p>Developed and approved interface documentation, schematics plans and databases;</p> <p>Developed and approved technical documentation for procurement;</p> <p>Developed and approved installation plans;</p> <p>Successful collaboration with technical partners in Domestic Agencies and other Directorates at IO;</p> <p>Efficient work at all times with other Diagnostics team members.</p>
	Project Construction Phase

Applicant criteria

Level of study	PhD or equivalent degree
Diploma	Physics or Engineering
Level of experience	At least 6 years
Technical experience/knowledge	Basic knowledge on nuclear effects on materials.
	<p>At least 6 years' experience in a fusion-related field;</p> <p>Proven experience in the design of plasma diagnostic systems;</p> <p>Proven participation in experimental operations at a large device;</p> <p>Documented expertise in development and operation of mm-wave and soft X-ray diagnostics for plasma physics related projects;</p> <p>Experience in coordinating teams' activities;</p> <p>Ability to project costs and resources for technical projects;</p> <p>Experience with design defense in technical design reviews;</p> <p>Experience with the technical follow-up of CAD activity;</p> <p>Familiarity with electrical diagrams.</p>
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	<p>Proven presentation writing skills;</p> <p>Track record of first author publications in English;</p>
Languages	English (Fluent)
Specific skills	CATIA, MS Office standard (Word, Excel, PowerPoint, Outlook)

IO1695 Ion Cyclotron Mechanical Engineer - TED-051

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Heating & Current Drive Division
Section	TED / HCD / Ion & Electron Cyclotron Section

Job description

Main job	Engineering - Mechanics
Title of the position	Ion Cyclotron Mechanical Engineer - TED-051
Job family	Engineer - 1
Grade	P2
Direct employment	Not required
Purpose	<ul style="list-style-type: none">- Together with the Ion Cyclotron Heating (ICH) & Current Drive (CD) team, to develop the final mechanical design of the ICH & CD antenna.- To achieve compliance of the antenna design with the nuclear codes and standards.- To develop technical specifications for R&D aiming to qualify manufacturing techniques for key antenna components; in particular for components having a nuclear safety function- To support ICH component development, in all aspects related to mechanical engineering and safety. In particular to assist the Technical Responsible Officers of Radio Frequency sources, Transmission lines and High Voltage Power Supply subsystems.
Main duties / Responsibilities	<ul style="list-style-type: none">- Contributes to the preparation of the Built to Print antenna package;- Ensures requirements are detailed and expressed in design inputs;- Prepares R&D specifications to support design development and qualification;- Implements and assesses compliance of design solutions with the relevant codes and standards;- Develops justification plans (safety road maps) for components in relation with a safety function- Assesses design justifications provided by contributing Domestic agencies;- Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan;- May be requested to be part of any of the project team and performs other duties upon management request;- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.
Measures of effectiveness	<ul style="list-style-type: none">- Reports to Ion Cyclotron responsible officer;- Interacts with ITER Organization (IO) and Domestic Agencies (DA) Technical Responsible Officers for IC system,- Interacts with IO Responsible Officer of systems which have an interface with the IC system- In response to requests from the Director-General and/or Head of Tokamak Engineering Department (TED) , or proactively, informs the DG/ TED 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.- Develops the mechanical design of Ion Cyclotron (IC) antenna components to quality, schedule and cost;- Develops accurate design justification plans for safety important components within the defined deadlines;- Reports on compliance of design proposals with codes and standards;- Analyses the integration and requirements compliance of design proposals;- Efficiently supports the IC H&CD team in mechanical developments.- Prepares R&D technical specifications related to final design of the antenna and integration of other sub systems
	Project Construction Phase

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Mechanical Engineering/Design
Level of experience	At least 5 years
Technical experience/knowledge	- Knowledge of international and French industrial codes and standards (RCC-MR, ASME 8, SDC-IC, etc) and good appreciation of quality assurance procedures.
	- At least 5 years' experience in mechanical design and/or design on Heating Current Drive (HCD) system(s) is required;
	- Experience in technical integration of complex mechanical systems is required;
	- Experience in mechanical engineering in areas relevant to the ITER environment (e.g. Remote handling, Ultra High Vacuum (UHV) environment, nuclear environment, high heat flux components) is required;
Project experience	- Experience in manufacturing follow up is required;
	- Experience in the technical design of Ion Cyclotron Resonance Heating (ICRH) antennae or tokamak components is considered an advantage.
Social skills	- Basic Project Management experience is required.
Social skills	1 to 2 years
General skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
Languages	- Good working knowledge of spoken and written English is essential.
Specific skills	- French language skills would be an advantage to prepare documents on regulatory issues
Others	English (Fluent)
	CATIA, MS Office standard (Word, Excel, PowerPoint, Outlook)
	- MS Office
	- CAD Packages, Ansys, etc. Knowledge of Catia V5 is an advantage.

IO1699 Magnet Engineer TED-056

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Magnet Division
Section	TED / MAG / CS & Correction Coil Section

Job description

Main job	Engineering - Mechanics
Title of the position	Magnet Engineer TED-056
Job family	Engineer - 1
Grade	P2
Direct employment	Required
Purpose	<p>To assess the Central Solenoid (CS) and Correction Coils (CC) procurement and quality control documents.</p> <p>To participate in the CS and CC coil manufacturing design, approving of manufacturing drawings and maintaining consistency with the ITER approved models and drawings.</p> <p>To monitor for all magnet areas of design model quality and work organization, preparing work orders and supervising/supporting contract designers. To follow up for all magnet areas manufacturing change requests, ensuring they are implemented in the ITER configuration control models.</p> <p>To monitor the status / progress of CS and CC procurement activities.</p> <p>To prepare assembly procedures and participate in assembly activities.</p>
Main duties / Responsibilities	<p>Follows up the procurement for the CS and CC coils, in the technical areas of High Voltage insulation, vacuum / cryogenic technology, superconductivity;</p> <p>Assesses and corrects CS and CC coil manufacturing procedures, manufacturing and inspection plans and quality control documentation;</p> <p>Contributes to the administration of magnet design office by liaising with Design Office, prepares work orders, advises with specialized knowledge of magnet design;</p> <p>Follows manufacturing change requests with the Domestic Agencies and their suppliers throughout magnet procurement area, ensures changes are recorded and implemented into ITER Organization approved Catia models, liaises with CAD & Design Coordination Division;</p> <p>Prepares CS and CC assembly and inspection plans and associated procedures;</p> <p>Contributes to the design and procurement of CS and CC shipping and assembly tools;</p> <p>Prepares the assembly activities;</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 and performs 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 CS and CC Section Leader;</p> <p>Interfaces with members in other sections in the Magnet Division, with other departments as required by operation of the Catia system and integration of the magnet design, and with the Domestic Agencies and their industries regarding manufacturing drawings and change monitoring;</p> <p>In response to requests from the Director-General and/or Head of Tokamak Engineering Department (TED), or proactively, informs the DG/ TED 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.</p> <p>Efficient tracking of magnet manufacturing changes in DAs and maintaining up to date ITER approved Catia models;</p> <p>Contributes efficiently to provide good quality CAD models and drawings;</p> <p>Preparation of Assembly and Inspection Plans for CS assembly Ensures CS and CC coil</p>

Measures of effectiveness	procurement is properly monitored during fabrication within the defined quality, cost and schedule; Contributes efficiently to assessment of CS & CC coil manufacturing procedures.
	Project Construction Phase

Applicant criteria

Level of study	At least Master's Degree or equivalent
Diploma	Mechanical Engineering or other related discipline
Level of experience	At least 5 years Knowledge of superconducting coil design and manufacture; Knowledge of high voltage insulation methods.
Technical experience/knowledge	At least 5 years' experience as a technical designer or project engineer in a large multidisciplinary project or institute; Experience with welding and Non Destructive Testing procedures; Familiarity with mechanical design codes and standards such as ASME or EN; Experience in supervising fabrication of components in industry. Industrial manufacturing experience is required.
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
General skills	Demonstrated ability to write good quality technical reports.
Languages	English (Fluent)
Specific skills	CATIA, MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	Good familiarity with the Catia CAD system; Good command of the Microsoft Office package.

IO1675 Construction & Integration Engineer CIO-053

General information

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

Job description

Main job	Engineering - Construction
Title of the position	Construction & Integration Engineer CIO-053
Job family	Engineer - 1
Grade	P2
Direct employment	Not required
Purpose	<ul style="list-style-type: none">- To provide assistance to Design Integration in the area of port systems.- To support the port cells, Neutral Beam Cell Area Manager for all engineering tasks related to the port systems integration and construction management. - Performs integration assessment of the interfaces definition between the components and systems (functional and physical);- Assures Constructability , Applicability, Reliability and Maintainability of the port systems;- Monitors and controls the manufacturing of main port components in accordance to interface definition and functional tolerance requirements;- Manages R&D and associated mock-ups related to port systems Integration;- Assesses assembly processes in an integrated manner for mechanical components on the basis of construction process documents;- maintenance studies, ensuring that all safety related aspects are properly considered (dose rate limitation to personnel and contamination confinement);- Ensures design control through design integration reviews and model approval processes;- Participates actively to the port plug assembly and- Assesses component tolerances on mechanical components on the basis of functional tolerance drawings in support to Deviation Request and Project Change Request; Performs 3D variation studies to assure the successful integration of port systems; - Follows major ITER milestones and provides forecast and planning for the Port Integration work, and covers regular reports on team performance according to defined schedule;- Manages volume reservations inside the port area (configuration management process) under consideration of special needs for man access and tooling during installation and maintenance;- Supports meeting preparation and post processes (writing actions, reports, CAD model approval and other configuration management related documentation);- Performs other duties in support of the integration and construction work in the areas of the Tokamak, port systems and interfacing plant systems;- Supports project schedule as described in the Detailed Work Schedule or Strategic Management Plan;- Performs other duties in support of the project schedule as described in the detailed Work Schedule and the Strategic Management Plan;- May be requested to be part of any of the project team and performs other duties upon management request;
Main duties / Responsibilities	<ul style="list-style-type: none">- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics. - Under the coordination of the Area Manager for Port systems, reports to the Design Integration Section / Division Head;- Interfaces closely with the Engineering & Construction Departments and other ITER Departments and Project Teams, to ensure interfaces and requirements consistency;- Interacts with the technical responsible officers and systems engineers for the components within ITER Organization , Project Teams and Domestic Agencies for all matters relating to port systems and Tokamak Integration;- In response to requests from the Director-General and/or Central Integration Office (CIO) Head,

Measures of effectiveness	<p>or proactively, informs the DG/CIO 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.</p> <ul style="list-style-type: none"> - Enhances in an exhaustive manner the definition of the port systems configuration; - Manages and resolves interface issues following deviation requests or non-conformity reports during the whole construction and commissioning phase of the Tokamak; - Manages the port systems as-built configuration with respect to construction intermediate and final dimensions, together with assembly final positioning of components within the defined cost and schedule; - Reviews and completes Construction work packages in an exhaustive manner with respect to interface definition.
	Project construction phase

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Mechanical Engineering or other related discipline
Level of experience	At least 5 years
Technical experience/knowledge	<ul style="list-style-type: none"> - Knowledge of basic mechanical & piping assembly technologies; - Knowledge about rules of Configuration Control management; - Knowledge of tolerance management.
	<p>At least 5 years' experience covering the following topics:</p> <ul style="list-style-type: none"> - Integration of large projects scientific and/or nuclear projects, involving large components and structures would be an advantage; Evaluation of interfaces, creation of related interface actions and follow up until resolution; - Design, procurement and construction. - Tolerance studies of mechanical system; - Handling of large& heavy components; - Nuclear plant quality assurance program, safety and regulatory requirements;
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	<ul style="list-style-type: none"> - Excellent capability to interact with experts from different disciplines; - Organizational skills and autonomy for his/her of responsibility;
Languages	English (Fluent)
Specific skills	CATIA, MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	<ul style="list-style-type: none"> - Good knowledge with CATIA V5 or similar CAD system; - Good knowledge of 3D tolerance software; - Excellent knowledge of the Microsoft Office package; - Familiarity with schedule planning tools.

IO1683 Thermal Hydraulic Engineer PED-032

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 - Hydraulics
Title of the position	Thermal Hydraulic Engineer PED-032
Job family	Engineer - EC
Grade	P1
Direct employment	Not required
Purpose	<p>-To perform the thermal hydraulic design and transient analyses of the Cooling Water Systems (CWS).</p> <p>-To support the Cooling Water System (CWS) Section for the preparation of the thermal-hydraulics transient analyses requested to assess operational transients, incidents and accidents relevant for the CWS.</p> <p>-To contribute to the preparation of the Technical Specification for the procurement, the fabrication and testing of the CWS equipment.</p>
Main duties / Responsibilities	<ul style="list-style-type: none">- Performs thermal-hydraulic analyses to assess the operational transients of the Cooling Water Systems (CWS);- Performs thermal-hydraulic analyses to assess the incidental and accidental scenarios (Loss of Coolant Accident (LOCA), Loss of Flow Accident (LOFA), Loss of Offsite Power (LOOP), etc.) relevant for CWS, proposes and implements design modifications to improve CWS response to incidents/accidents, as well as to operational transients;- Participates to the finalization of the CWS functional analyses, considering the thermal hydraulic transients of all the CWS sub-systems;- Collaborates with the other Engineers in the CWS Section to finalize the process and thermal-hydraulic design of CWS and namely the Tokamak Cooling water System (TCWS);- Collaborates with the Instrumentation & Control (I&C) Engineers in the CWS Section to develop the control logic design studies and their integration in the CWS systems;- Collaborates with the Nuclear Safety Engineer to assess the incidental and accidental scenarios, the possible consequences and the impact on the CWS design;- Supports the CWS Section for the design, procurement, assembly and/or installation, commissioning and operation of the CWS piping and components in close collaboration with Domestic Agencies and other ITER Organization Departments;- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics;- Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan;- May be requested to be part of any of the project team and performs other duties upon management request. <p>- Reports to the Cooling Water System Section Leader;</p> <p>- Acts as an interface with other internal and external resources for the thermal hydraulic design and analyses of the Cooling Water Systems (CWS);</p> <p>- In response to requests from the Director-General and/or Plant Engineering Department (PED) Director, or proactively, informs the DG/ PED 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.</p> <p>- Performs the thermal hydraulic design/analyses of the Cooling Water Systems (CWS) in a timely manner;</p> <p>- Provides the accurate thermal-hydraulic transient analyses of the CWS in a timely manner;</p>

- Measures of effectiveness
- Ensures satisfaction of functional thermal hydraulic requirements flow down;
 - Ensures the satisfaction of safety and functional thermal hydraulic requirements of the CWS.

Project construction phase

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Mechanical or Nuclear Engineering or equivalent
Level of experience	At least 2 years
Technical experience/knowledge	<ul style="list-style-type: none"> - At least 2 years' experience in performing thermal-hydraulic analyses of nuclear cooling systems; - Sufficient experience in sizing calculations of nuclear cooling systems; - Basic experience in the Control Processes of Cooling Systems for Nuclear Power Plants or nuclear facilities is considered an advantage. - Basic Project Management experience is appreciated.
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)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	<ul style="list-style-type: none"> - Knowledge of MS Office standard (Word, Excel, PowerPoint, Outlook) is required; - Very good knowledge of RELAP5 system code is required; - Basic knowledge of software for thermal-hydraulics steady state analyses (e.g. AFT Fathom) is required; - Basic knowledge of MELCORE software is also required; - Specific knowledge of software for Computational Fluid Dynamics (CFD) calculations would be an advantage; - Knowledge of 2D-3D CAD software (AVEVA PDMS or Catia and See-Visio) is appreciated.

IO1686 Hot Cell Engineer PED-045

General information

Job category	Standard
Status	Published
Department	PED / Plant Engineering Department
Division	PED / Remote Handling & Radioactive Materials Division

Job description

Main job	Engineering - Nuclear Power
Title of the position	Hot Cell Engineer PED-045
Job family	Engineer - 1
Grade	G6
Direct employment	Required
Purpose	<p>- To contribute to the design, integration, safety, assembly, installation, commissioning and operation of the ITER Hot Cell Complex, including the Remote Handling and Radwaste Systems contained within. The Hot Cell Complex includes the Hot Cell and Radwaste Facilities and the Personnel Access Control Building.</p> <p>- Manages technical design issues with respect to the Hot Cell and Radwaste Building designs, include confinement and shielding doors, cranes, trolleys, ventilation, etc.;</p> <p>- Provides support to the interface of ITER with the French Authorities and with the French Disposal Facilities to which all ITER Radwaste will eventually be transported;</p> <p>- Supports the licensing activities in close collaboration with the Safety Department;</p> <p>- Establishes and updates the required baseline documentation and the design, interfaces, procurement, assembly, commissioning and operation technical documentation;</p> <p>- Supports the required safety documentation and operating procedures for the Remote Handling and Radwaste Treatment and Storage system in the Hot Cell & Radwaste facilities in close collaboration with the involved interfaces;</p>
Main duties / Responsibilities	<p>- Performs other duties linked to the above purpose upon management request, as necessary;</p> <p>- May be requested to be part of any of the project team and performs 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 Head of the Remote Handling and Radioactive Materials Division;</p> <p>- In response to requests from the Director-General or Plant Engineering Department Head, or proactively, informs the Director-General or Plant Engineering Department 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.</p> <p>- Completes the design activities and procurement in a timely manner and within the defined cost;</p> <p>- Enhances the system performance or reduce the system costs while keeping the technical and safety requirements;</p>
Measures of effectiveness	<p>- Provides efficient and timely support to the Remote Handling and Radioactive Materials Division integration activities</p> <p>Project construction phase</p>

Applicant criteria

Level of study	Master or equivalent degree
Diploma	nuclear eng. field or other relevant discipline
Level of experience	At least 5 years
Technical experience/knowledge	<p>- At least 5 years of experience in the field of nuclear engineering, mechanical, process, radiation protection, remote handling, tritium handling, radwaste fields;</p> <p>- Experience in the integration and procurement of large and complex systems and facilities, if</p>

possible within an international environment.

- Good experience in complex and multidisciplinary projects.

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)

Specific skills

CATIA, MS Office standard (Word, Excel, PowerPoint, Outlook)

Others

- Knowledge of MS Office standard (Word, Excel, PowerPoint, Outlook) is required;
- Design experience with CATIA and/or AVEVA would be an advantage.

IO1685 Vacuum Design Technician PED-042

General information

Job category	Standard
Status	Published
Department	PED / Plant Engineering Department
Division	PED / Fuel Cycle Engineering Division
Section	PED / FCED / Vacuum Section

Job description

Main job	Engineering - Vacuum technologies
Title of the position	Vacuum Design Technician PED-042
Job family	Coordinating Technician
Grade	G5
Direct employment	Not required
Purpose	<p>- To support the completion of the design and integration of the ITER vacuum systems, providing cross project support need to achieve vacuum standards and contributing to the design/construction of parts of the vacuum procurements. Particularly to provide technical support in the areas of vacuum leak testing defining vacuum qualification methodologies, preparing procedures and designing gigs and equipment for leak & pressure tests. In addition the ITER project has vacuum laboratory facility to support the construction of the ITER machine and in which vacuum qualification/assembly components is performed. The successful candidate shall support activities in the ITER Vacuum Laboratory.</p>
Main duties / Responsibilities	<ul style="list-style-type: none">- Participates in the design, following manufacturing, construction and commissioning of ITER vacuum systems which cover the ITER vacuum vessel, cryostat, neutral beams and auxiliary vacuum systems;- Designs and fabricates vacuum leak and pressure test tooling required to test ITER vacuum components and systems;- Participates in the assessment of designs of vacuum components and systems to ensure leak testability at all stages of manufacture and installation;- Defines leak testing methodologies appropriate to qualify vacuum components and systems with respect to leak performance;- Prepares leak testing procedures in line with ITER Organization (IO) and European norms (EN) standards;- Witness leak testing operations as part of acceptance tests at the ITER Organization (IO), Domestic Agencies (DAs) and Industrial Suppliers premises;- Reviews vacuum leak detection studies for onsite acceptance and assembly testing;- Sets up and performs vacuum test and qualification activities in the ITER Vacuum Laboratory and prepares and executes vacuum test equipment maintenance schedules;- Supports the implementation of vacuum standards and standardization across the project;- Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan;- May be requested to be part of any of the project team and performs other duties upon management request;- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.- May be requested to work shifts during the ITER assembly and commissioning phases. <ul style="list-style-type: none">- Reports to the Vacuum Section Leader;- Interfaces between the ITER Sections, to ITER Project teams and with Domestic Agencies;- In response to requests from the Director-General and/or Head of Plant Engineering Department (PED), or proactively, informs the DG/Head of PED Department 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.- Elaborates clarity and thoroughness of engineering documents;- Provides quality and efficiency on interfacing with other ITER project departments and Domestic

Measures of effectiveness	Agencies, and maintaining good communication and relations; - Works effectively in teams and contribute to the overall success of the ITER project; - Successfully and efficiently completes the tasks assigned under Main Duties / Responsibilities above within the defined time frame; - Performs work safely and with regard for safety in design.
	Project construction phase

Applicant criteria

Level of study	At least Bachelor's degree or equivalent
Diploma	Engineering or equivalent in other relevant discip
Level of experience	At least 7 years
Technical experience/knowledge	- Qualified in NDT at least COFREND 2 or equivalent experience; - Knowledge of vacuum system and cryogenic design; - Knowledge of leak detection and localization methods; - Knowledge of fabrication processes particularly in SS welding; - Knowledge of CAD.
	- At least 7 years engineering experience in industry or on large complex construction projects; - At least 5 years' experience in leak detection techniques specializing in helium tracer gas leak detection; - Experience in the working within a laboratory or workshop facility, including coordinating activities; - Experience in the operation of high vacuum and cryogenic equipment including the performance and reporting of vacuum outgassing tests; - Ability to produce high quality analysis reports in English.
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	- Able to work autonomously and as part of a team; - Good presentation skills; - Ability to lead small teams of technicians.
Languages	English (Fluent)
Specific skills	MS Office professional (Access, Project, Publisher, Visio), MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	- Microsoft Word, Excel, Access, Visio and PowerPoint; - Knowledge of CAD and other engineering software relevant for a large construction project.

IO1696 Instrumentation Technician TED-058

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Magnet Division
Section	TED / MAG / Superconductor Systems & Auxiliaries Section

Job description

Main job	Engineering - Electronics
Title of the position	Instrumentation Technician TED-058
Job family	Coordinating Technician
Grade	G5
Direct employment	Required
Purpose	<p>To contribute to the instrumentation design, definition and procurement for the ITER coils and auxiliary systems. To contribute integrating the instrumentation into the coils and feeders. To contribute to definition of instrumentation assembly and commissioning procedures. To participate as supervisor to the instrumentation assembly and the coil commissioning activities.</p>
Main duties / Responsibilities	<p>Contributes to the ITER magnet instrumentation and control procurement and take responsibility for some procurement contracts;</p> <p>Contributes to the design of the instrumentation measurement chains for Low Voltage (LV) and High Voltage (HV) signals up to the control interfaces;</p> <p>Assists in integrating the coil instrumentation systems with the coils to fulfill the monitoring requirements reliably without compromising the coil operation;</p> <p>Contributes to the instrumentation measurement chain qualification;</p> <p>Contributes to the Quench Detection System qualification;</p> <p>Prepares reliability assessments for the instrumentation and defines adequate back up capability;</p> <p>Contributes to the definition of the instrumentation interfaces to CODAC, Central Interlock and Safety Systems;</p> <p>Assists in the definition of procurement specifications for the instrumentation systems, carrying out a call for tender and placing procurement contracts;</p> <p>Follows the instrumentation procurement and ensures timely delivery to the Domestic Agencies (DAs) and ITER site during coil fabrication and installation on ITER site;</p> <p>Contributes to the definition of the instrumentation system installation and test procedures;</p> <p>Monitors quality control tests on the instrumentation during manufacture and after installation;</p> <p>Assists in providing the control logic to allow the control software to be developed;</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 project team and performs 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>Under the supervision of the Magnet instrumentation Responsible Officer, reports to Superconductor Systems & Auxiliaries Section Leader;</p> <p>Acts as an interface between other Departments as required by the magnet design, in particular with the Electrical Engineering Division and the Control System Division;</p> <p>In response to requests from the Director-General and/or Head of Tokamak Engineering Department (TED), or proactively, informs the DG/ Head of TED 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>Contributes efficiently to the instrumentation system specifications;</p> <p>Contributes to the manufacture and the qualification of the instrumentation solutions within the defined schedule;</p>

Measures of effectiveness Contributes to the life-cycle of the instrumentation series production, installation and commissioning.

Project Construction Phase

Applicant criteria

Level of study	At least Bachelor's degree or equivalent
Diploma	Electrical Engineering or other related discipline
Level of experience	At least 7 years
Technical experience/knowledge	Knowledge of High Voltage measurement techniques. Knowledge of cryogenic instrumentation;
	At least 7 years' postgraduate experience in magnet instrumentation design; Familiarity with Magnet and Cryogenic controls including quench detection. Basic Project Management experience is required.
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
General skills	Ability to both work in a team and coordinate a group of technicians; Ability to communicate clearly and write technical reports and specifications in English;
Languages	English (Fluent)
Specific skills	Computer Aided Design, MS Office standard (Word, Excel, PowerPoint, Outlook)

IO1687 Manufacturing Engineering Technician TED-068

General information

Job category	Standard
Status	Published
Department	TED / Tokamak Engineering Department
Division	TED / Vessel Division
Section	TED / VV / VV/Ports & Thermal Shield Section

Job description

Main job	Engineering - Mechanics
Title of the position	Manufacturing Engineering Technician TED-068
Job family	Coordinating Technician
Grade	G5
Direct employment	Required
Purpose	<p>To perform structural and thermal analysis to justify manufacturing design and non-conformity during manufacturing;</p> <p>To support management of documentations and section activities;</p> <p>To contribute factory and site acceptance tests for all components of the Vacuum Vessel (VV) including visual inspection, helium leak test, unpacking, etc.</p>
Main duties / Responsibilities	<p>Performs structural and thermal analysis for the Vacuum Vessel (VV) components to justify their integrity during manufacturing design and manufacturing due to non-conformity;</p> <p>Performs reporting on justification results to submit the Agreed Notified Body in order to get agreement and approval for implementation;</p> <p>Coordinates management of documentations in ITER document management system of all the VV documents;</p> <p>Supports document management for manufacturing, assembly and licensing for the VV torus;</p> <p>Supports assembly activities in site and pit;</p> <p>Supports communication inside of the VV project team between ITER Organization (IO)-central team and IO-domestic agencies (DAs) for document control and meeting organization, etc;</p> <p>Prepares Site Acceptance Tests (SAT) for all Vacuum Vessel (VV) components including free issued items;</p> <p>Develops test procedures for Factory Acceptance Tests (FAT) and Site Acceptance Tests (SAT) such as pressure test, baking, leak test, dimensional measurement, etc;</p> <p>Reports results of Factory Acceptance Tests (FAT) and Site Acceptance Tests (SAT) to management and the agreed notified body;</p> <p>Supports management activities of the Vacuum Vessel (VV) sections;</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work Schedule;</p> <p>May be requested to be part of any of the project teams and performs 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 VV/Ports & Thermal Shield Section Leader;</p> <p>Interfaces with all other sections in the ITER Organization and DAs as required;</p> <p>In response to requests from the Director-General and/or Head of Tokamak Engineering Department (TED), or proactively, informs the DG / TED 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.</p> <p>Provides effective structural and thermal analysis for manufacturing design and justification of non-conformities;</p> <p>Provides effective support for the timely completion of the detailed design and procurement activities;</p> <p>Attains good simulation results to validate the detailed design of components and systems;</p> <p>Establishes a good collaborative relationship with all members of the Tokamak Departments.</p>

Applicant criteria

Level of study	At least Bachelor's degree or equivalent
Diploma	Mechanical field or equivalent
Level of experience	At least 7 years
Technical experience/knowledge	<p>Knowledge of structural design code (such as ASME or RCC-MR).</p> <p>At least 7 years' experience in a similar position in a large multidisciplinary project; Experience in ANSYS analysis; Experience in using 3-D Model and 2-D CAD.</p>
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	<p>Demonstrated ability to produce high quality results;</p> <p>Excellent organizing skills and co-ordination skills with the ability to set priorities and meet deadlines;</p> <p>High level of reliability and dependability.</p>
Languages	English (Fluent)
Specific skills	CATIA, Computer Aided Design
Others	Good knowledge of CAD systems (particularly CATIA V5).

IO1684 Cryogenic Commissioning Technician PED-034

General information

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

Job description

Main job	Engineering - Cryogenics
Title of the position	Cryogenic Commissioning Technician PED-034
Job family	Technician - 3
Grade	G4
Direct employment	Required
Purpose	<ul style="list-style-type: none"> - To prepare the pre-commissioning and commissioning of the ITER Cryogenic System, in particular to support the major Cryogenic Contracts and Purchase agreement (PA). - To contribute to the integrated commissioning of ITER coupling cryogenic system with Clients and Auxiliaries.
Main duties / Responsibilities	<ul style="list-style-type: none"> - Reviews Process related document (Process Flow Diagram (PFD), Process & instrumentation Diagram (PID), Process Note, Functional Analysis); - Reviews Users (Magnets, Vacuum) Interface Document (Process, Process Control, Protection) related to the scope; - Contributes to the System Overall Process description in preparation for the commissioning; - Contributes to the development and tests of the Control System and Human Machine Interface; - Ensures that all documentation required for pre-commissioning, commissioning is available; - Reviews, compiles the documentation related to equipment start-up and operation; - Evaluates the requirement in term of spare parts and operating supplies for Commissioning; - Elaborates strategy for spare parts and operating supplies procurement and storage; - Prepares the pre-commissioning and commissioning procedures, sequences and planning; - Contributes to coordination of installation, pre-commissioning and commissioning activities; - Provides process/equipment expertise during pre-commissioning, start-up and tuning; - Provides support to cryogenic System Users and Utilities during commissioning; - Contributes to the training, coordination and management of the Technical Engineers; - Prepares for system operation: operation file build during commissioning, operator training ; - Prepare tests reports for plant acceptance certificate; - Ensures efficient management of operating spare parts and operating supplies. - Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan; - May be requested to be part of any of the project team and performs other duties upon management request; - Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics. - Reports to Cryogenic System Section Leader - Functionally reports to Process/Commissioning Leader. - Works in collaboration with Industrial Contractors - Works in collaboration with Domestic Agencies (INDA and F4E) - Works in collaboration with Site Coordinator (IO, F4E, Site Coordinator, HSE) - Assures that overall Pre-Commissioning and Commissioning Procedures are established and organized; - Manages Pre-Commissioning Activities as per procedure and adequately documented; - Maintains high level capabilities in mechanical, electrical and instrumentation work;
Measures of effectiveness	<ul style="list-style-type: none"> - Maintains high level capabilities in process operation; - Performs organizational skills by implementing an efficient organization based on clear plans and procedures.

Applicant criteria

Level of study	Bachelor or equivalent degree
Diploma	Engineering or other relevant discipline
Level of experience	At least 5 years Knowledge in Process Control, Instrumentation, Rotating Machinery, Refrigeration, Cryogenics.
Technical experience/knowledge	- At least 5 years as commissioning engineer on Process Plants. - Electrical equipment: 24V to 400V. - Instrumentation and Control: Software: EPICS, SIEMENS. - Instrumentation and Control: PLC, I/O Cards, Sensors (P, T, F), positioners, valves - Process Equipment: Motors, Pumps, Compressors
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)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	- MS Office - Knowledge in Siemens PLC Software will be a plus, even if not mandatory required

IO1677 CAD Technician CIO-056

General information

Job category	Standard
Status	Published
Department	CIO/ Central Integration Office
Division	CIO / Design Office Division
Section	CIO / DO / CAD Section

Job description

Main job	Engineering - Design
Title of the position	CAD Technician CIO-056
Job family	Technician - 2
Grade	G3
Direct employment	Required
Purpose	<ul style="list-style-type: none">- To execute design activities related to mechanical & plant systems;- To apply best industrial practices in the area of Computer Aided Design (CAD) for: components, circuits & integration; manufacture-ability & installation & maintainability;- To support the deliverable-based approach (at IO & outside IO) & remote design collaboration;- To implement CAD Quality Assurance (QA), Quality Control (QC) requirements & measures.- Main initial design / activities focused on: Tokamak design integration & construction (general drawings, tooling, assembly phasing description)
Main duties / Responsibilities	<ul style="list-style-type: none">- Produces Computer Aided Design (CAD) Deliverables, in accordance with the CAD Work-plan, such as: General arrangement/layout drawings, schematics, 3D models, assembly/part drawings, isometrics, interface & composite drawings, bills of materials, 3D simulations, tagging & other CAD data to support all phases (design, procurement, pre-assembly, installation & commissioning);- Performs execution of technical studies, impact assessment and implementation of changes requests and design review preparations;- Supports the Project in the procurement follow up via assessing speedily and efficiently design change requests and non-conformities, and checks manufacturing drawings;- Alerts on new issues and any deviation;- Supports integration, interface clarification and solving of design issues;- Develops / converts files for dedicated analysis;- Supports CAD design Work Packages performed in a remote design collaboration manner;- Updates and maintains CAD data and related databases;- Supports design activities associated to: standardization and catalogues, CAD data exchanges, maintenance of the context and configuration branches;- Complies with CAD QA and contributes to CAD QC;- Preserves component (PBS) and system knowledge related to design activities- Provides accurate DO monthly reports;- Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan;- May be requested to be part of any of the project team and perform other duties upon management request;- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.- Under the technical guidance of Plant Breakdown Structure Responsible Officers, reports to the CAD Section Leader;- Acts as an interface with other internal and external resources for the final design, the procurements, the pre-assembly and the installation of the equipment;- In response to requests from the Director-General and/or Central Integration Office (CIO) Head, or proactively, informs the DG/CIO 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.

Measures of effectiveness	<ul style="list-style-type: none"> - Contributes to design & integration solutions with a high level of autonomy; - Supports the proper usage of the CAD infrastructure by ITER Organization (IO) & non-IO Users; - Contributes to the implementation of the relevant IO horizontal processes: CAD configuration ; - Contributes to Quality Control (QC) and corrective measures implementation; - Produces the required reports on time and in accordance with a high quality standard; - Performs multi-tasking while adjusting quickly to new systems, issues and working environment; - Interacts efficiently with different team members (IO, DA & Suppliers) on multi-disciplines topics; - Contributes to complex activities while complying with schedule & cost containment constraints; - Promotes team spirit & makes proposals aiming at enhancing efficiency & quality.
	Project Construction Phase

Applicant criteria

Level of study	At least Post-Secondary Degree or equivalent
Diploma	Tech Engineering field or other related discipline
Level of experience	At least 3 years
Technical experience/knowledge	<ul style="list-style-type: none"> - At least 3 years of relevant design office experience including extensive usage of CATIA V5; - The experience with CATIA Equipment & Systems, advanced CAD data-bases like ENOVIA V5, Visio-based schematics software like See-System-Design and/or an advanced schematics driven 3D design software like AVEVA/PDMS and DELMIA would be an advantage. - Minimum relevant knowledge, preferably in nuclear environment, in: mechanics & plant design, general drawings, preliminary sizing, manufacturability, geometrical integration, checking of CAD data/drawings including manufacturing's, assembly tooling & sequencing, specific fusion technologies (ultra-high vacuum, cryogenics, robotics), design support (CAD exchanges); - Experience in multi-national projects, preferably in fusion and/or nuclear energy involving large components, supporting structures, buildings and complex interfaces would be an advantage; - Ability to control the deliverables from multi-national subcontractors;
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)
Specific skills	CATIA, MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	- Proficiency in MS Office standard (Word, Excel, PowerPoint, and Outlook) & Adobe Reader.