

ITER 국제기구 공모 직위 직무기술서 (제107차)

○ 4개 직위

구분	분야	소속	직위	Job No.	등급
①	플랜트시스템 엔지니어링 (PSE)	Electrical Engineering Division Electrical Power Distribution Section	Electrical Engineer	PSE-080	P4
②				PSE-387	P4
③	일반행정 (GEA)	Procurement and Contract Division Procurement Core Tokamak, Controls & Site Section	Cost Estimation Responsible Officer	ADM-128	P4
④	플랜트시스템 엔지니어링 (PSE)	Electrical Engineering Division Electrical Power Distribution Section	Cable Database Technician	PSE-105	G4

IO1526 Electrical Engineer PSE-080

General information

Job category	Standard
Status	Published
Department	DIP/Directorate for Plant System Engineering
Division	CEP/Electrical Engineering Division
Section	PSE/ EED/ Electrical Power Distribution Section

Job description

Main job	Engineering - Electricity
Title of the position	Electrical Engineer PSE-080
Job family	Coordinating Engineer
Grade	P4
Direct employment	Not required
Purpose	To monitor the design, procurement follow-up duty with DAs, manufacturing witness, factory testing, installation, commissioning, final acceptance of components for the ITER Steady State Electrical Network (SSEN), and routing of cables for power distribution, command and control.
Main duties / Responsibilities	<p>Is Technical Responsible Officer for procurements arrangements of electrical equipment;</p> <p>Is responsible for preparing and revision of technical specification and associated documents required for the design, procurement, construction, installation and commissioning of components and systems under her/his responsibility;</p> <p>Ensures design integration and layout of the SSEN components;</p> <p>Supervises the routing and installation of cables for power distribution, control and commands required for the ITER SSEN, as well as all other ITER systems;</p> <p>Supervises the contributions from the ITER Domestic Agencies, including design activities, manufacturing, testing and installation of the components delivered by the Domestic Agencies;</p> <p>Evaluates design issues and provides reports to the Section Leader;</p> <p>Revises regularly the Project Schedule associated with the fabrication, installation, testing and commissioning of the components and systems;</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>Performs other duties linked to the above purpose upon management request, as necessary;</p> <p>Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.</p> <p>Reports to Electrical Power Distribution Section Leader;</p> <p>Acts as an interface between all technical divisions, members of the ITER Team and Domestic Agency Personnel as required to support the construction design team on building and site requirements;</p> <p>In response to requests from the Director-General and/or Director of Plant System Engineering (PSE) Directorate, or proactively, informs the DG/ Director of PSE Directorate 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>Produces deliverables in accordance with deadlines and quality defined by the Leader of Electrical Power Distribution Section and the Head of the Electrical Engineering Division;</p> <p>Follows up the activities of DAs and contractors are performed in order to get the procurement and installation of the SSEN components are completed in accordance with the ITER Strategic Management Plan (SMP);</p> <p>Manages interface between ITER divisions and Domestic Agencies and maintains effective communications with all parties delivering subsystems;</p> <p>Develops, in agreement with the ITER SMP, cost effective commissioning plans and later on effectively follows up the commissioning activities of time critical electrical components.</p> <p>ID SAP: 50001081</p> <p>Project Construction Phase</p>

Applicant criteria

Level of study	At least Master's Degree or equivalent
Diploma	Electrical Engineering
Level of experience	At least 10 years
Technical experience	<p>At least 10 years' work experience in managing design, installation and testing of large AC power distribution systems, comparable to those of the ITER SSEN (i.e. AC rated voltage in the range from Low to High Voltage, about 150 MVA connected loads, 120 MW to be distributed), or projects of similar complexity;</p> <p>Experience in manufacturing follow-up of large High voltage and Medium voltage electrical equipment.</p> <p>Good knowledge of the design details, technical requirements and installation of power transformers, switchgears, distribution transformers, distribution boards, comparable to those required for ITER;</p> <p>Knowledge of the design details and technical requirements of earthing systems;</p> <p>Good knowledge of standards and design criteria applicable to the design of High (400kV) and Medium voltage components and systems.</p>
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
Languages	English (Working)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	Good knowledge of ETAP software application (www.etap.com) or equivalent applications for analysis of electrical circuits.

IO1528 Electrical Engineer PSE-387

General information

Job category	Standard
Status	Published
Department	DIP/Directorate for Plant System Engineering
Division	PSE / Electrical Engineering Division
Section	PSE/ EED/ Electrical Power Distribution Section

Job description

Main job	Engineering - Electricity
Title of the position	Electrical Engineer PSE-387
Job family	Coordinating Engineer
Grade	P4
Direct employment	Not required
	<p>To manage engineering design activities, manufacturing, qualification, testing and operation in all matters related to the emergency power supply components and systems dedicated to the supply of investment protection and safety relevant electrical consumers;</p> <p>To manage the engineering activities for the onsite assembly and installation of the components for the following electrical systems:</p> <ul style="list-style-type: none">- Steady State Electrical Network (SSEN) and Emergency Power Supplies;- Pulsed Power Electrical Network (PPEN);- Coil Power Supply System.
Purpose	<p>The key facts and figures of the above listed electrical systems are:</p> <ul style="list-style-type: none">- Incoming power at 400 kV and main power distribution network at 66 kV and 22 kV.- Seven large, 400 kV, high power step down transformers with total installed power of about 1.1 GVA.- Pulsed power consumers composed by large AC/DC power converters supplied at 66 kV and 22 kV with total connected power of about 2 GVA.- About 10 km of water cooled Aluminum busbars capable to carry up to 68 kA DA, continuous duty and isolated for a rated nominal voltage of 12 kV.- Standard industrial electrical consumers fed at 6.6 kV and 400 V, with total connected power of about 180 MVA.- Two Emergency Diesel Generators of about 4 MVA/each for the supply of investment protection and safety relevant electrical consumers.
Main duties / Responsibilities	<p>Is responsible for the design, procurement, qualification & testing of emergency power supply components & systems dedicated to the supply of investment protection & safety relevant electrical consumers;</p> <p>Manages the procurement of cables for investment protection & safety relevant components;</p> <p>Follows-up with the licensing process & preparing of safety reports for the safety relevant emergency power supply components;</p> <p>Prepares the operating description documents of the safety relevant & investment protection electrical distribution at ITER;</p> <p>Prepares & updates sections of the Electrical Design Handbook that are dedicated to safety relevant electrical components & system;</p> <p>Is responsible for the supervision of Domestic Agencies regarding the activities related to the installation of all the ITER electrical systems that a briefly summarized in the initial section of this job description;</p> <p>Performs the initial development & future updating of installation sequence and schedules related to the installation of all ITER electrical systems;</p> <p>Prepares technical specifications & managing contracts related to on site assembly & the installation of all ITER electrical systems;</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work Schedule & the Strategic Management Plan;</p> <p>Performs other duties linked to the above purpose upon management request, as necessary;</p> <p>Maintains a strong commitment to the implementation & perpetuation of the ITER Safety Program,</p>

Measures of effectiveness	values & ethics.
	<p>Reports to the Electrical Power Distribution Section Leader;</p> <p>Acts as an interface between all members of the Electrical Engineering Division & others systems to support the integration of the emergency power supplies;</p> <p>In response to requests from the Director-General and/or Director of Plant System Engineering (PSE) Directorate, or proactively, informs the DG/Director of PSE Directorate of any important & urgent issues that cannot be handled by the concerned line management & may jeopardize the achievement of the Project's objectives.</p>
	<p>Ensures the efficient execution of actions related to design, procurement and construction for his/her scope of activities, within the defined cost, scope and schedule;</p> <p>Controls the activities related to Electrical Design Handbook;</p> <p>Manages effectively the interfaces associated with his/her scope of activities.</p> <p>Project Construction Phase ID SAP 50000326</p>

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Electrical Engineering
Level of experience	At least 10 years
Technical experience	<p>At least 10 years' experience in design, construction, installation and testing of electrical components and systems comparable to those of the ITER SSEN, PPEN Emergency Power Supplies, or projects of similar complexity (the key facts and figures are reported in the initial section of this job description).</p> <p>Project Management experience is required;</p>
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit, Collaborative, Positive outlook
General skills	<p>Good knowledge of the design details, technical requirements and nuclear safety functions of electrical distribution systems;</p> <p>Good knowledge of international electrical standards and general design criteria for safety relevant components;</p> <p>Good knowledge of Quality Assurance/Quality Control procedures for the design, installation, commissioning and operation of electrical components, including safety relevant components;</p> <p>Knowledge of safety automation architectures and facilities usually used in nuclear plants, would be considered an advantage;</p> <p>Knowledge of French electrical standards for electrical installations in Basic Nuclear Installation is considered an advantage.</p>
Languages	English (Working)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	<p>Computer and IT skills:</p> <p>Good knowledge of ETAP software application (www.etap.com) or equivalent tools for design of power distribution system would be considered an advantage.</p>

IO1529 Cost Estimation Responsible Officer ADM-128

General information

Job category	Standard
Status	Published
Department	ADM/Department for Administration
Division	GEA / Procurement and Contract Division
Section	GEA/ PCD/ Procurement Core Tokamak, Controls & Site Section

Job description

Main job	Business Administration - Procurement
Title of the position	Cost Estimation Responsible Officer ADM-128
Job family	Coordinating Officer
Grade	P4
Direct employment	Not required
Purpose	<p>To provide cost estimating services to the Procurement and Contracts Division (PCD). These services will primarily be in support of, but not limited to, major IO in-cash procurements, Task Agreements (in-kind and in-cash), and selected change requests.</p> <p>To review cost estimates provided by Domestic Agencies (DAs), and to take appropriate action and/or advise PCD management regarding such estimates.</p> <p>To ensure high quality management processes for cost estimation.</p>
Main duties / Responsibilities	<p>Establishes cost estimates for major IO in-cash procurements at the highest level of detail practical given the constraints of time, manpower, and level of design of the particular procurement;</p> <p>Advises Procurement Officers within PCD in their development of financial strategies, including risk identification/sharing, formulation of tendering scenarios, cost breakdown format, etc.;</p> <p>Contributes to negotiations with contractors;</p> <p>Reviews cost breakdowns provided by DAs, evaluates for completeness, accuracy and compliance with established project guidelines, and engages in constructive dialog as necessary;</p> <p>Reviews cost estimates involving transfer of scope between the IO and the DAs, and structures and develops suitable analyses based on the nature and complexity of the scope being transferred;</p> <p>Ensures the level of estimate and associated uncertainty is in accordance with guidance established by the Association for the Advancement of Cost Engineering International (AACEI);</p> <p>Ensures correct and complete application of appropriate methodologies in preparing or reviewing cost estimates, including utilization of commercially available software and databases;</p> <p>Develops, implements, maintains and documents IO cost estimating systems and processes;</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>Performs other duties linked to the above purpose upon management request, as necessary;</p> <p>Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.</p> <p>Reports to the Section Leader for Procurement Core Tokamak Controls & Site Section;</p> <p>Interacts with PCD and DA personnel and IO Responsible Officers;</p> <p>In response to requests from the Director-General and/or Director of General Administration, or proactively, informs the DG/ Director of General Administration 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>Efficient and autonomous development and validation of complex cost estimates while respecting the defined schedule;</p> <p>Demonstrated accuracy and suitability of purpose in preparing bottom-up cost estimates;</p> <p>Added value in contract negotiations and in interactions with DAs;</p> <p>Efficient assistance to IO Procurement Officers in achieving cost savings;</p> <p>Development, implementation and documentation of cost estimating systems and processes.</p>

Applicant criteria

Level of study	At least Master's Degree or equivalent
Diploma	Engineering or related field
Level of experience	At least 10 years
Technical experience	At least 10 years in the area of cost estimating/cost engineering within a project environment; At least 5 years of complex construction and/or nuclear project experience; Experience in the areas of project management, risk management, tendering, contract administration, and financial oversight/budgeting.
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit Ability to apply knowledge and original thinking to problem solving and issue resolution.
General skills	Professional certification from the Association for the Advancement of Cost Engineering or an equivalent recognized certification in cost engineering/estimating is desirable; Highly proficient in all key areas of cost engineering and estimating, including the preparation of top-down, parametric modeling and bottom-up cost estimates, as well as demonstrated knowledge of generally accepted industry best practices in these areas.
Languages	English (Working)
Specific skills	Primavera, SAP
Others	Highly proficient in the use of commercial estimating software; Good command of Primavera V6 and SAP or equivalent resource management tools would be an advantage; Demonstrated ability to manage the development and integration of estimating systems to be fully interoperable with other project management systems such as Primavera and SAP.

IO1527 Cable Database Technician PSE-105

General information

Job category	Standard
Status	Published
Department	DIP/Directorate for Plant System Engineering
Division	PSE / Electrical Engineering Division
Section	PSE/ EED/ Electrical Power Distribution Section

Job description

Main job	Engineering - Electricity
Title of the position	Cable Database Technician PSE-105
Job family	Technician - 3
Grade	G4
Direct employment	Required
	To support the Electrical Engineering Division in all matters related to the development, compilation and updating of the cable database system used to manage the space allocation, routing, procurement, installation and maintenance of all cables, cable terminations and cable trays of the ITER facilities.
Purpose	<p>Supports the maintenance, quality assurance and consistency of the central cabling database for all cables (power, instrumentation and control, fiber optics, pneumatic tubing for Instrumentation & Control, etc.) in the ITER facility for all systems;</p> <p>Creates, maintains and updates of the Interface Control Documents (ICDs), Interface Sheets (IS) and associated explanatory diagrams and drawings, between PBS-44 (cable trays) and all systems;</p> <p>Ensures proper cable data collection from the systems Technical Responsible Officers, for the production of electrical diagrams;</p> <p>Follows-up on the design & production of the Electrical Diagrams, Process Flow Diagrams (PFD), Piping & Instrumentation Diagram (P&ID), Loop Diagrams, Wiring Diagrams and Pneumatic Diagrams;</p> <p>Integrates, maintains and publishes all diagrams in the ITER central database;</p> <p>Monitors and controls the work performed by Engineering Support Companies contracted by the ITER Organization to develop, compile and update Electrical Diagrams;</p> <p>Witnesses qualification tests and factory acceptance tests related to the components that are under her/his responsibility and alerts line management when necessary;</p> <p>Checks the on-site contractor for installation, testing and commissioning of components that are under her/his responsibility and alerts line management when necessary;</p> <p>Implements the guidelines and rules established by the Electrical Engineering Division for routing and installation of power, instrumentation and control cables;</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;</p> <p>Performs other duties linked to the above purpose upon management request, as necessary;</p> <p>Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.</p> <p>Reports to the Electrical Power Distribution Section Leader;</p> <p>Acts as an interface between all members of the Electrical Engineering Division, ITER Design Office, Engineering Support Companies contracted by the ITER Organization and the ITER Domestic Agencies;</p> <p>In response to requests from the Director-General and/or Director of Plant System Engineering (PSE) Directorate, or proactively, informs the DG/Director of PSE Directorate 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 effectively the design and construction activities of the Electrical Engineering Division for the scope of activities;</p> <p>Ensures proper development and follow-up of databases for the scope of activities;</p>

Measures of effectiveness	<p>Contributes effectively to the activities related to management, routing and installation of power and control cables;</p> <p>Manages interfaces between ITER Divisions and Domestic Agencies and maintains effective communication with all parties delivering subsystems.</p> <p>Project Construction Phase</p> <p>ID SAP : 50000227</p>
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Applicant criteria

Level of study	Bachelor or equivalent degree
Diploma	Electrical or Electro-mechanical engineering
Level of experience	At least 5 years
Technical experience	<p>At least 5 years' experience in design and/or installation of power and control cables in plant systems;</p> <p>Experience in using cable diagrams tools;</p> <p>Experience in managing system interfaces is recommended;</p> <p>Experience in database management (querying, reporting, quality checks, etc.).</p>
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit, Collaborative, Positive outlook
Languages	English (Working)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	<p>Computer and IT skills:</p> <p>Proven experience in the use of database tools;</p> <p>Experience with 2D-3D CAD software is considered as an advantage.</p>