

IO1660 Coil Power Supply Control Engineer - PED-037

General information

| | |
|--------------|---------------------------------------|
| Job category | Standard |
| Status | Published |
| Department | PED / Plant Engineering Department |
| Division | PED / Electrical Engineering Division |
| Section | PED / EED / Coil Power Supply Section |

Job description

| | |
|--------------------------------|--|
| Main job | Engineering - Control system |
| Title of the position | Coil Power Supply Control Engineer - PED-037 |
| Job family | Engineer - 2 |
| Grade | P3 |
| Direct employment | Not required |
| Purpose | <p>To integrate the engineering design of the ITER coil power supply instrumentation and control (I&C) and to follow up the detailed design, procurement, manufacturing, factory testing, installation and on site testing of the coil power supply system I&C system.</p> <p>To design, plan and execute the integrated test and the commissioning of the coil power supply system for all components and interfaces of the coil power supply system I&C system.</p> <p>Performs the integration of the ITER coil power supply instrumentation and control (I&C) and implementation of the technical solutions to resolve design and integration issues related to I&C of ITER coil power supply (CPS);</p> <p>Specifies the main protection functions and implements within coil power supply plant or with respect to other interfaced plant systems, including the identification of interlock and safety functions from amongst all of the protection functions;</p> <p>Monitors and follows up the engineering activities of the ITER coil power supply Procurement Arrangements (PAs) related plant I&C to ensure that components and subsystems will be designed, fabricated, shipped, installed, tested and integrated on schedule consistent with the requirements;</p> <p>Maintains the interfaces with plasma control, CODAC, Central Interlock System (CIS) and Central Safety System (CSS), and coordinates with the plasma control system to ensure the consistent implementation at the ITER coil power supply I&C ; Coordinates with CODAC, CIS and CSS to ensure the implementation of the ITER Plan Control Design handbook (PCDH);</p> <p>Develops the procedures for the on-site acceptance tests and integrated commissioning for the coil power supply system related to the I&C;</p> <p>Follows-up the design and production of Electrical Diagrams, Process Flow Diagrams (PFD), Control Loop Diagrams, Wiring Diagrams;</p> <p>Performs the field surveillance of the installation of coil power supply I&C system, the integration of CPS I&C on site and the commissioning on the matter related to the I&C, including the required trouble shooting;</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 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> |
| Main duties / Responsibilities | <p>Reports to the Coil Power Supply Section Leader;</p> <p>Acts as an interface between all members of the Coil Power Supply Section, ITER CODAC section, Science Division , other plant systems and the ITER Domestic Agencies;</p> <p>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.</p> |

| | |
|---------------------------|---|
| Measures of effectiveness | <p>Performs effectively the design and construction activities of the Coil Power Supply Section for the scope of activities;</p> <p>Ensures proper execution of Coil Power Supply design and analyses required to support the design, installation and commissioning of instrumentation and control of electrical components.</p> <p>Contributes effectively the activities related to resolution of interfaces issues between electrical components, plant systems and CODAC.</p> <p>Manages interface between ITER Departments and Domestic Agencies and maintains effective communications with all parties delivering subsystems.</p> <p>Project Construction Phase</p> |
|---------------------------|---|

Applicant criteria

| | |
|--------------------------------|--|
| Level of study | Master or equivalent degree |
| Diploma | Electrical engineering or control system |
| Level of experience | At least 8 years |
| Technical experience/knowledge | <p>Strong knowledge in design and integration of electrical instrumentation and control systems for large electrical components and systems.</p> <p>At least 8 years' experience in the field of the control of large electrical system, comparable with those of the ITER power supply systems</p> <p>Good knowledge of industrial control systems involving the design and implementation of hardware, software, data transmission networks and processes.</p> <p>At least 8 years in the design, construction and/or operation of Tokamak devices or equivalent large projects;</p> <p>At least 5 years in the design, construction and/or operation of the control system for high power conversion system;</p> <p>At least 3 years in the management of the test, commissioning and/or operation of Instrumentation & Control (I&C) systems for large electrical 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 (Fluent) |
| Others | <p>Good knowledge of Microsoft suite;</p> <p>Good knowledge of modelling the control system, in particular for purpose of the dynamic behavior analysis;</p> <p>Good knowledge of software applications for development of 2D drawings;</p> <p>Good knowledge of the Electrical Transient Analysis considered as advantage.</p> |