

IO1299 Interlock Systems Specialist CHD-093

General information

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| Job category | Standard |
| Status | Published |
| Department | DIP/Directorate for CODAC, Heating & Diagnostics |
| Division | CHD / Control System Division |
| Section | CHD / CSD / Plant Control and Instrumentation Section |

Job description

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| Main job | Engineering - Control system |
| Title of the position | Interlock Systems Specialist CHD-093 |
| Job family | Experienced Technician - 2 |
| Grade | G5 |
| Direct employment | Required |
| Purpose | <p>To work with the Plant Control & Instrumentation Section in the design, procurement and commissioning of the ITER Central Interlock System (CIS), providing technical support during the final design and procurement phases of the system.</p> <p>To develop global dependability studies on the ITER interlocks.</p> <p>To contribute to the procurement, deployment, operation and maintenance of the ITER Central Interlock System within the responsibility of the PCI Section.</p> <p>To participate to the development and testing of the control system devices used within or interfacing with the ITER Interlock Control System.</p> <p>To participate to the installation and integration of the ITER Plant Interlock Systems.</p> <p>To provide hands-on services and help on electronics and automation issues in ITER interlock prototypes.</p> |
| Main duties / Responsibilities | <ul style="list-style-type: none">- Supports the CIS Responsible Officer on the design, construction, installation and commissioning of the Central Interlock System;- Supervises the work of the IO contractors during the preliminary and final design phases of the CIS (digital and hardwired);- Develops a complete dependability analysis of the Interlocks Control System providing input to its design, construction and operation;- Supports the CIS Responsible Officer as instrumentation and controls expert during the procurement of the ITER interlocks;- Manages the CIS interfaces documentation and the required databases for the interlocks integration follow-up;- Supervises the FAT and SAT of the Central Interlock System versions;- Performs and/or supervises technical works on the interlocks cubicles and infrastructure;- Maintains and continuously improves the interlock;- Defines and continuously improves the ITER I&C Cubicle internal configuration in the area of cabling, power train, signal interfacing and electromechanical assembly;- Participates to the maintenance of the Plant System Design Handbook configuration guideline satellite documents;- Participates to the reception, installation and integration of the ITER Plant Interlock Systems;- Plans, order and installs the interlock related equipment in CODAC Technical Rooms and their annex terminal rooms;- Orders and supervise the procurement of small electronics and electrical accessories;- Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan;- Performs other duties linked to the above purpose upon management request, as necessary;- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics. <p>- Reports to the Plant Control & Instrumentation Section Leader;</p> <p>- Acts as an interface between the interlock team and the Plant Systems Technical Responsible Officers for Plant System connectivity, commissioning and integration;</p> <p>- In response to requests from the Director-General and/or CODAC, Heating & Diagnostics Directorate (CHD) Director, or proactively, informs the DG/CHD Director of any important and</p> |

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| Measures of effectiveness | 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"> - Maintains in good operating condition and continuously improves the interlocks prototypes; - Contributes efficiently to the design and installation of the Central Interlock System within the defined schedule; - Contributes proactively to the installation, commissioning and integration of ITER Plant Interlock Systems within the defined schedule; - Completes and maintains a global dependability analysis of the ITER interlocks. |
| Project Construction Phase | |

Applicant criteria

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| Level of study | Bachelor or higher degree |
| Diploma | Automatic Ctrl Systems, Electronics or Nuclear Eng |
| Level of experience | At least 8 years |
| Technical experience | <ul style="list-style-type: none"> - Experience is required in the design and construction of instrumented protection systems based on Siemens S7 PLC technologies or equivalent; - Experience in Red Hat Enterprise Linux operating system is an asset; - Experience in PROFINET is an asset; - Experience in PROFISAFE is an asset; - Experience in electrical power distribution design and installation. |
| Social skills | <ul style="list-style-type: none"> - Good knowledge of dependability analysis tools; - Strong knowledge of I&C interlock technologies: Siemens S7 PLC, FPGA, hardwired protections, etc. |
| General skills | <p>Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit</p> <p>Project experience:</p> <ul style="list-style-type: none"> - Participation to the construction of a large scale I&C installation; - Experience of the procurement, purchasing and reception QA procedures; - Participation to the construction of scientific or technical facility is an asset; - Experience working in international environment is an asset. |
| Languages | English (Working) |
| Specific skills | MS Office standard (Word, Excel, PowerPoint, Outlook) |
| Others | <p>Computer and IT skills:</p> <ul style="list-style-type: none"> - Linux (Red Hat) - Visio and Project - Dependability analysis software tools |