

# IO2124 Safety Control Systems Engineer SCOD-059

## General information

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| Job category | Standard   |
| Status       | Published  |
| Department   | SCOD / Science & Operations Department               |
| Division     | SCOD / Control System Division                       |
| Section      | SCOD / CSD / Plant Control & Instrumentation Section |

## Job description

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| Main job                       | Safety - Security - Generalist   |
| Title of the position          | Safety Control Systems Engineer SCOD-059   |
| Job family                     | Engineer - 2   |
| Grade                          | P3   |
| Direct employment              | Required   |
|                                | <p>To work predominantly on activities linked to the design of the Central Safety System for Occupational Safety (CSS-OS) and to its compliance with safety-related standards.</p> <p>In support to the Responsible Officer, to ensure that the CSS-OS meets the project requirements and is delivered on time.</p> <p>To be responsible for the integration of the CSS-OS and Plant Safety Systems for Occupational Safety.</p> <p>To contribute to the management of the CSS-OS design and procurement contract.</p> <p>To assist where appropriate during the construction, installation, integration and commissioning of the CSS-OS.</p> <p>To support the development of Central Safety System for Nuclear (CSS-N).</p>  |
| Purpose                        | <p>Background information:</p> <p>The Safety Control System is divided in two systems, nuclear and occupational safety. The Safety Control System for Occupational Safety (SCS-OS) protects people against conventional safety risks by implementing Instrumentation &amp; Control (I&amp;C) safety functions. The overall SCS-OS is comprised of the CSS-OS and several Plant Safety Systems for Occupational Safety (PSS-OS). The SCS-OS is designed to comply with international safety related standards (such as IEC 61508, IEC 61511).</p> <p>Please note that an organizational restructuring is planned in accordance with the needs of the organization and the evolution of the project phases. In this context, the unit of assignment of the present position may be updated in late 2019, early 2020.</p> <p>Reviews and writes technical documentation/specifications for the procurement and follow-up of contracts for the Central Safety Systems;</p> <p>Develops the Occupational Safety I&amp;C control system with respect to relevant safety standards;</p> <p>Defines the integration plans for the SCS-OS integration with PSS-OS subsystems as per requirement of safety related I&amp;C standards;</p> <p>Develops and maintains the documentation to ensure consistency with I&amp;C safety standards, requirements and the Management &amp; Quality Program;</p> <p>Participates in factory acceptance tests, site acceptance tests and commissioning tests of the Safety Control Systems for Occupational Safety;</p> <p>Contributes to the standalone and integrated commissioning phases for the safety systems;</p> <p>Takes a leading role in the definition and management of interfaces between CSS and PSS;</p> <p>Participates actively in the preparation of the CSS-OS design reviews;</p> <p>Develops the interfaces of components within the Control Systems and with sensors/actuators as delivered by the different plant safety systems;</p> <p>Interacts with the Occupational Health &amp; Safety Section in order to efficiently integrate the SCS-OS in their processes;</p> <p>May be requested to be part of any of the project/construction teams and to perform other duties in support of the project;</p> <p>May be required to work outside ITER Organization reference working hours, including nights,</p> |
| Main duties / Responsibilities |  |

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| Measures of effectiveness | weekends and public holidays.  |
|                           | Establishes integration plans and procedures for the integration of the Occupational Safety control systems according to the I&C safety standards; |
|                           | Ensures the definition of interfaces between CSS-OS and PSS-OS are completed within the defined quality and schedule;                              |
|                           | Prepares and executes effectively the validation, installation and commissioning of the SCS-OS;  |
|                           | Keeps documentation accurate and up-to-date;<br>Communicates well and professionally with interfacing teams of the ITER project.                   |

## Applicant criteria

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| Level of study                 | Master or equivalent degree  |
| Level of experience            | At least 8 years   |
| Technical experience/knowledge | Master Degree or equivalent in Industrial Control or instrumented safety-related engineering or other relevant discipline;<br>The required education degree may be substituted by extensive professional experience involving similar work responsibilities and/or additional training certificates in relevant domains;<br>Proven experience in the design of large scale heterogeneous I&C systems;<br>Practical experience of integrating I&C safety systems in large facilities; |
|                                | Knowledge in functional safety as per international standards (such as IEC 61508 and IEC 61511);<br>Basic knowledge in Directive 2006/42/EC on machinery is considered an advantage;<br>Extensive practical experience in adapting to changing context, conducting acceptance and commissioning tests of industrial safety and/or non-safety I&C systems;<br>Experience in defining the needs and requirements, perform sourcing activities and monitor the contract delivery.       |
|                                | Collaborate: Ability to dialogue with a wide variety of contributors and stakeholders;<br>Communicate Effectively: Ability to adjust communication content and style to deliver messages to work effectively in a multi-cultural environment;  |
|                                | General skills<br>Drive results: Ability to persist in the face of challenges to meet deadlines with high standards;<br>Manage Complexity: Ability to gather multiple and diverse sources of information to understand problems accurately before moving to proposals/solutions;<br>Instill trust: Ability to apply high standards of team mindset, trust, excellence, loyalty and integrity.  |
| Languages                      | English (Fluent)   |
| Others                         | Relevant practical experience in Programmable Logic Controllers (PLC) architectures and PLC software development;<br>Practical experience in using Siemens PLC and software development tools and libraries (Step 7, TIA Portal, CFC, etc.) is considered an advantage;  |
|                                | Practical experience in using and configuring industrial Supervisory Control And Data Acquisition (SCADA) systems;<br>Experience in Siemens WinCC Open Architecture is considered an advantage;  |
|                                | Strong practical experience of Microsoft Office tools and Microsoft Visio;<br>Excellent computer and IT skills are mandatory.  |