

# IO1446 Nuclear Safety Engineer TCWS-023

## General information

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| Job category | Standard                                     |
| Status       | Published                                    |
| Department   | DIP/Directorate for Plant System Engineering |
| Division     | PSE/Plant Engineering Division               |
| Section      | PSE/ PED/ Cooling Water System Section       |

## Job description

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| Main job                       | Safety - Security - Nuclear Safety   |
| Title of the position          | Nuclear Safety Engineer TCWS-023   |
| Job family                     | Engineer - 1   |
| Grade                          | P2   |
| Direct employment              | Not required   |
| Purpose                        | <p>To prepare the Safety Analysis for the Tokamak Cooling Water Systems (TCWS);</p> <p>To contribute to monitoring the implementation of the TCWS safety requirements, the compliance with the RPrS (Rapport Preliminaire de Sûreté), the prescriptions of the French Nuclear Regulator - Autorité de Sûreté Nucléaire (ASN) and the indications received from the Agreed Notified Body (ANB).</p> <p>Identifies initiating events within and beyond the design basis and performs the related accidental analyses for ITER TCWS;</p> <p>Assesses the accidents consequences impacting the TCWS and the surrounding systems;</p> <p>Performs Failure mode, effects and criticality analysis (FMECA) analyses;</p> <p>Contributes to revising and developing procedures to assess the consequences of High Energy Line Break (HELB) in TCWS piping;</p> <p>Develops Human Factor analyses;</p> <p>Develops TCWS emergency operating procedures and guidelines;</p> <p>Checks and integrates safety relevant analyses performed by other experts in the CWS Section;</p> <p>Collaborates with the other experts in the Cooling Water System (CWS) Section to assess the incidental and accidental scenarios and the impact of the related consequences on the TCWS design;</p> <p>Prepares in full collaboration with the Nuclear Division (within the SQS Department) and with the other System Engineers in the CWS Section, the assessment of the incidental and accidental scenarios, the possible consequences and the impact on the TCWS design and issues the relevant Safety Report;</p> <p>Contributes to monitoring the implementation of the TCWS safety requirements and the compliance with the RPrS (Rapport Preliminaire de Sûreté);</p> <p>Contributes to monitoring the implementation of the prescriptions of the French Nuclear Regulator - Autorité de Sûreté Nucléaire (ASN) and the indications of the concerned Agreed Notified Body (ANB) for the TCWS design and procurement;</p> <p>Supports the CWS Section for the design, procurement, assembly and/or installation and operation of the TCWS piping and components in close collaboration with Domestic Agencies and other ITER Directorates;</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 Cooling Water System Section Leader;</p> <p>Acts as an interface with other internal and external resources for the safety analyses of the TCWS;</p> <p>In response to requests from the Director-General and/or Plant System Engineering (PSE) Directorate Director, or proactively, informs the DG and PSE Directorate Director of any important and urgent issues that cannot be handled by the concerned line management and may jeopardize</p> |
| Main duties / Responsibilities |  |

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| Measures of effectiveness | the achievement of the Project's objectives.   |
|                           | Produces the Safety Analysis of the TCWS in a timely manner;<br>Contributes to ensuring the satisfaction of safety and functional thermal hydraulic requirements flow down;<br>Contributes to monitoring and updating the compliance of TCWS design and procurement with the RPrS (Rapport Preliminaire de Sûreté), the prescriptions of the French Nuclear Regulator - Autorité de Sûreté Nucléaire (ASN) and the indications received from the Agreed Notified Body (ANB). |
|                           | Project Construction Phase   |

Applicant criteria

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| Level of study       | Master or equivalent degree  |
| Diploma              | Nuclear Engineering or other relevant.   |
| Level of experience  | At least 5 years   |
| Technical experience | At least 5 years' experience in the System Engineering of complex nuclear projects;<br>Good experience in Safety Analyses of nuclear facilities;<br>Good knowledge in primary coolant systems of nuclear plants. |
| Social skills        | Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit   |
| General skills       | Basic Project Management experience is required.   |
| Languages            | English (Working)  |
| Specific skills      | MS Office standard (Word, Excel, PowerPoint, Outlook)  |
| Others               | Knowledge of RELAP software is required;<br>Knowledge of MELCORE software is an advantage;<br>Knowledge of 2D-3D CAD software is an advantage.   |