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| **Title** | **Missions System – Principal Safety Engineer** |
| **Band** | **Individual Contributor – Professional** |
| **Grade** | **P4** |
| Job Family | **Principal Safety Systems Engineer** |
| Reporting To | **Project Engineering Lead or Manager**   |
| Location | **Oakdale - Hybrid**  |
| Date Written/Revised | **21-Feb-2024**  |

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| **Position Objective** |
| The Principal Safety Engineering role is accountable for enacting the GDUK Safety Policy within the Design Services Contract (DSC), other contracted work and Internal product development, primarily this is discharged by execution of Safety Management Programmes to address Functional and Non-Functional Safety aspects.The successful candidate will be a Chartered Engineer with several years’ experience of leading safety elements of large programmes and sometimes delivering across multiple project/programmes. The ability to input into the business’s safety capability, provide strategic safety leadership and deliver flexible and innovative approaches in the military land, sea and air environment, is a major requirement of this role.The candidate will be responsible for the creation and management of Safety Plans and Safety & Environmental Cases in accordance with GDUK processes.They will provide analysis of software and hardware design capabilities in order to identify hazards, their causes and consequences, and formulates specific functional safety requirements and/or operational processes. |

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| **Generic Level Description** |
| General Accountabilities | First full level of specialization or project management; applies specific area(s) of expertise in own functional area. |
| Supervision Required or Provided to Others | Determines methods and procedures on new assignments. May lead a project or work team made up of senior technical and/or professional and support staff - focus is on task and resource management vs staff management. May provide advice and guidance in area of specialization. |
| Complexity | Works on complex issues where analysis of situations or data requires an in-depth evaluation of variable factors. Exercises judgment in selecting methods, techniques and evaluation criteria for obtaining results.  |
| Knowledge and Expertise | Acclaimed specialist in one area; demonstrates depth/breadth of knowledge/skills in own discipline. Applies knowledge/skills through handling complex problems and may coordinate work which may extend beyond own area of expertise; shares expertise with colleagues and other departments. |
| Problem Solving | Anticipates patterns and links; looks beyond the immediate problem to the wider implications; generates new solutions to complex problems. |
| Planning and Organizing | Manages own time, and maybe that of others; develops plans for work activities in own areas over the medium/long-term; supports strategic planning activities. |
| Project Management Accountabilities | Manages moderately complex to complex projects; accountable for quality of work delivered by external suppliers, as applicable; identifies researching issues within scope of work; coaches others in area of specialization. |
| Decision Making and Autonomy | Has decision-making authority and autonomy to deliver on goals of work or project team; influences others outside of team to ensure goals met and resolves conflicts in an effective manner. |
| Client/Business Orientation | Assists in the development and implementation of customer service enhancements in own functional area, including responses to customer feedback; plays a role and/or coaches others to ensure customer conflicts, concerns and issues are resolved. Anticipates client needs, investigates the underlying causes and identifies short- and long- term solutions. Anticipates client business issues and developments in own discipline; uses knowledge to focus work and drive improvements. May manages costs and profitability across more than one project/work activity. |
| Communication, Negotiation and Influencing | Explains/presents complex ideas; anticipates potential objections and prepares case accordingly; influences others. |
| Leadership Requirements | Coaches others on how to enhance communication, problem solving, teamwork and innovation; involves others in problem solving, decision-making and creative thinking. |
| Key Contacts | Seeks out new avenues for building internal and external relationships; maintains on-going contacts with existing relationships; coaches others on relationship management issues. |
| Physical Effort  | Little chance of injury. Little physical effort required. |
| Working Conditions | Standard office environment with little physical effort required. May be required to travel for extended periods of time and/or have overnight trips. Significant additional hours during peak and difficult business circumstances may be expected. |

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| **Discipline Description** |
| Responsibilities Include | 1. Manage delivery on the Bowman and CIP (BCIP) Design Services Contract (DSC) safety programme.
2. Safety management and maintenance of the BCIP5.6 system safety case including:
* Managing the development of new BCIP Product Safety Cases and Safety Case Reports and their ongoing maintenance.
* Managing the development and maintenance of legacy BCIP Product Safety Cases and Safety Case Reports.
* Managing the DSC Safety Programme including the timely updating and release of safety CDRLs.
* Providing safety management and analysis input to DSC tasking.
* Reviewing and commenting on OEM safety documentation.
* Maintaining the DSC / Authority safety relationship.
1. Ensuring adherence to the GDUK Safety Policy with DSC scope of work.
2. Providing safety SME input as required.
3. Maintaining knowledge of relevant UK / EU legislation and regulation, MOD safety and environmental processes, procedures and standards.
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| **Knowledge, Skills & Abilities** |
| Required Skills & Abilities | **Essential**1. Demonstrable breadth and depth of experience / competence in Safety Engineering for large scale system of systems, or a background that provides the equivalent transferrable experience / competence.
2. Demonstrable ability to lead a Safety Engineering capability.
3. Competence in the following areas:
* System and product safety case plans and reports
* Software Safety
* Fault Tree and Event Tree Analysis
* Modular Safety Cases and Goal Structuring Notation (GSN)
* Def Stan 00-051, 00-055; 00-056; IEC 61508; DSA02.DLSR.LSSR; DO-254; DO-178B and C;
* HAZOPS
* Safety Integrity Levels (SILs)
* Legislative compliance and knowledge of current/future safety and environmental legislation
* CCA
* OHHA / OSHA
* COSHH / MSDS
* Environmental Management
1. A demonstrable ability to think at the systems level and innovate.
2. A demonstrable ability to build effective relationships.
3. Excellent communication skills.
4. Excellent organisational skills.
5. Excellent analysis and decision making skills.
6. A willingness to learn and develop any gaps in experience / competence.

**Desirable*** Understanding of computer and network infrastructures.
* Understanding and experience of Military Systems.
* Experienced in the use of engineering tools for Requirement Management and System Design,
* Experience with Model-Based Systems Engineering and System Modelling Language (SysML).
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| **Education & Experience** |
| Required Education & Experience | * Degree qualified in a relevant discipline (or equivalent), an MSc in System Safety would be advantageous
* Chartered Engineer, or equivalent status is highly desirable.
* Track record of delivery on Safety and Environmental programmes
* Understanding of Systems Engineering
* Experience of functional safety and system of systems safety
* Ability to hold MOD clearance.
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