

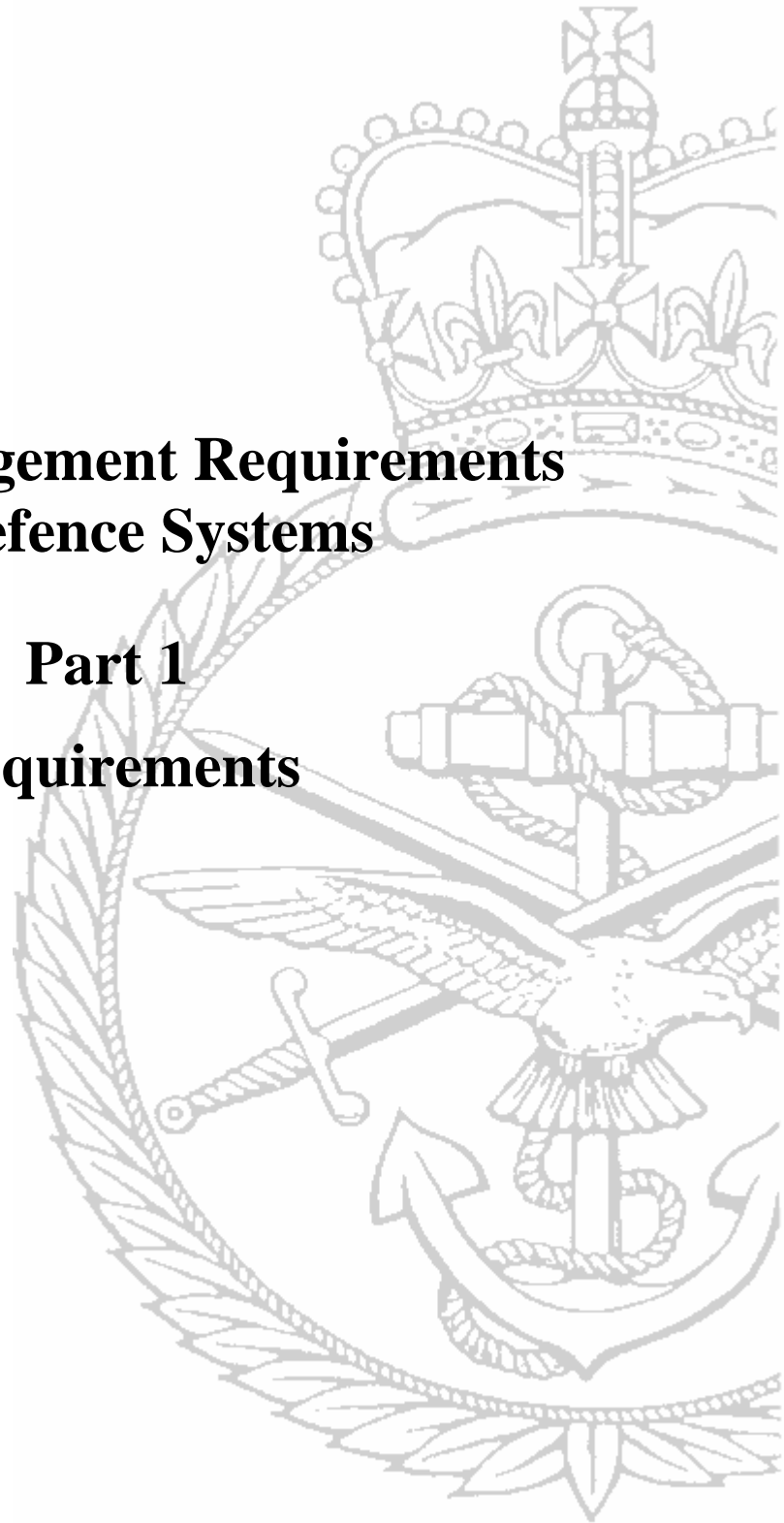


Ministry of Defence Defence Standard 00-56

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Safety Management Requirements for Defence Systems

Part 1 Requirements



AMENDMENT RECORD

Amd No	Date	Text Affected	Signature and Date

REVISION NOTE

This Standard is raised to Issue 4 to update its content for clarity and remove the Interim tag.

HISTORICAL RECORD

This Standard supersedes the following:

Interim Defence Standard (Def Stan) 00-56 Issue 3 dated 17 December 2004.

PREFACE

Standards for Defence

Safety Management Requirements for Defence Systems

Part 1 : Requirements

- a.** This Part of the Defence Standard provides requirements for the management of safety. It can be applied to any MOD project and can be applied in any phase of a project's life. This Standard shall be used by Defence Contractors as required by contract. The effective application of this Standard requires close cooperation between all parties, as the responsibility for the achievement of safety is shared.
- b.** This Standard has been produced on behalf of the Defence Materiel Standardization Committee (DMSC) by the Safety Standards Review Committee (SSRC).
- c.** This Standard has been agreed by the authorities concerned with its use and is intended to be used whenever relevant in all future designs, contracts, orders etc. and whenever practicable by amendment to those already in existence. If any difficulty arises which prevents application of the Defence Standard, the Directorate of Standardization (DStan) shall be informed so that a remedy may be sought.
- d.** Any enquiries regarding this Standard in relation to an invitation to tender or a contract in which it is incorporated are to be addressed to the responsible technical or supervising authority named in the invitation to tender or contract.
- e.** Compliance with this Defence Standard shall not in itself relieve any person from any legal obligations imposed upon them whether by legislation, regulation or common law.
- f.** This Standard has been devised solely for the use of the Ministry of Defence (MOD) and its contractors in the execution of contracts for the MOD. To the extent permitted by law, the MOD hereby excludes all liability whatsoever and howsoever arising (including, but without limitation, liability resulting from negligence) for any loss or damage however caused when the Standard is used for any other purpose.

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TEXT

Standards for Defence

Safety Management Requirements for Defence Systems

Part 1 : Requirements

0 INTRODUCTION

0.1 Under UK law, all employers have a duty of care to their employees, the general public and the wider environment. For the MOD, this includes an obligation to manage the safety **risks** associated with military systems and their operation. In addition safety is a vital characteristic of defence systems as it often has a significant impact upon operational effectiveness. In accordance with general guidance provided by the Health and Safety Executive, MOD will discharge this duty by ensuring that, in so far as risks are not judged to be unacceptable, they are reduced to a level which is As Low As Reasonably Practicable (**ALARP**).

0.2 Contractors who undertake the design, development, manufacture, supply and support of equipment and defence systems for MOD are obliged to apply ALARP principles. Such Contractors may also be subject to additional legal duties, including those imposed by the European Union Product Liability Directive. For this reason MOD acknowledges that, in determining what actions are to be taken to ensure that an appropriate level of system safety is achieved and maintained, **Duty Holders** shall have regard to the needs of Contractors to discharge their legal duties.

0.3 The purpose of this Standard is to set requirements that enable the acquisition of systems that are compliant with both safety legislation and MOD safety policy. This is achieved through the provision of evidence that the system is **safe** for its intended purpose through its life. The key objectives underlying these requirements are listed below, and expanded and elaborated to form specific requirements in subsequent clauses:

- a. All relevant safety legislation, regulations, standards and MOD Policy are identified.
- b. All activities and products comply with the identified legislation, regulations, standards, MOD Policy and specific contractual requirements.
- c. Safety is considered from the earliest stage in a programme and used to influence all activities and products. It is essential that safety risks and project risks are managed together.
- d. Tasks that influence safety are carried out by individuals and organisations that are demonstrably competent to perform those tasks.
- e. **Safety management** is implemented as a key element of a harmonised, integrated systems engineering approach.

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- f. An auditable **Safety Management System** is implemented that directs and controls the activities necessary to ensure safety throughout the programme life (i.e. the acquisition cycle).
- g. A **Safety Case** is developed and maintained that demonstrates how safety will be, is being and has been, achieved and maintained.
- h. **Safety Case Reports**, that summarise the Safety Case and document the status of safety management activities, are delivered as necessary for effective oversight of safety management.
- i. All credible **hazards** and **accidents** are identified, the associated **accident sequences** are defined and the risks associated with them are determined.
- j. All identified safety risks are reduced to levels that are As Low As Reasonably Practicable (ALARP) and **broadly acceptable** or, when this is not possible, **tolerable** and ALARP, unless legislation, regulations or MOD Policy imposes a more stringent standard.
- k. Interfaces between Safety Management Systems, Safety Cases, systems and organisations are identified and effectively managed.
- l. Changes to the operational, technological, legislative and regulatory environment, and any other changes that may have an impact on safety, are monitored and managed.
- m. Defect/failure reports and **incident**/accident/near-miss reports are monitored; remedial actions necessary to ensure continued safety are identified and implemented.

0.4 This Standard is based upon a definition of safe that addresses:

- a. Death, physical injury or damage to the health of people, including MOD employees and the general public.
- b. Material loss or damage.

This Standard does not specifically address the environmental damage element of safety or the management of environmental issues. MOD Policy and guidance on this topic can be found in JSP 815 and JSP 418.

0.5 This Standard comprises two Parts:

- a. Part 1, is mandatory, setting out the key safety management requirements, including overarching objectives and principles. Mandatory requirements are indicated by the words 'shall' or 'must'.
- b. Part 2, which is not mandatory, providing guidance on establishing a means to comply with the requirements of Part 1. Part 2 contains two Sections:
 - 1. Section 1 – Clause by clause amplification of Part 1.
 - 2. Section 2 – Additional Guidance Regarding Systems Containing Complex Electronic Elements.

0.6 Where this Standard requires the Contractor and Duty Holder to reach agreement, neither party shall unreasonably prevent the conclusion of such agreement.

0.7 Unless otherwise specified, all disputes relating to this Standard shall be managed in accordance with the terms and conditions of contract.

1 SCOPE AND APPLICABILITY

1.1 This Standard specifies the safety management requirements for defence systems. The level of effort expended on safety management and the detail of the analysis shall be commensurate with the potential risk posed by the system (i.e. the risk that would be posed in the absence of mitigation), the complexity of the system and the unfamiliarity of the circumstances involved, such that the resultant Safety Case is sufficient to demonstrate that the system is safe, so far as is reasonably practicable.

1.2 This Standard considers a system to be a combination of different elements including personnel, procedures, materials, tools, equipment, facilities, services and/or software as appropriate.

1.3 This Standard applies to all acquisition scenarios and all systems, whatever the combination of elements. This includes:

- a.** Equipment acquired for, or on behalf of, the MOD.
- b.** Services provided for, or on behalf of, the MOD.
- c.** Activities that are funded by the MOD in support of a. or b.

1.4 Whilst contract life may be limited, application of this Standard shall require consideration of the full life of the system, between concept and disposal, as appropriate. Application shall relate to all situations and scenarios, including but not limited to trials, operations and training for operations as defined in the user requirement.

1.5 In the response to an Invitation to Tender that calls up this Standard, the tenderer shall specify how they intend to meet the requirements of this Standard. The tenderer shall document any intended deviations from this Standard. For any intended deviations, the tenderer shall indicate how their approach will meet the intent of this Standard or explain why compliance is not considered to be necessary.

1.6 Whether pre-contract or post-contract, any deviations from the requirements of this Standard shall be agreed between the Duty Holder and the Contractor.

1.7 There shall only be agreement to remove or replace specific requirements of this Standard where it can be shown that there is no adverse impact on the safety, or on the evidence of the safety, of the system. The Contractor shall provide with their response to the Invitation to Tender, and maintain should a contract be awarded, a compliance matrix, or equivalent, for this Standard, showing:

- a.** Which clauses will be or have been fully complied with.
- b.** Which clauses will not be or have not been fully complied with, and why, including a description of any agreed alternative approaches and why they are acceptable.

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1.8 Where there are conflicts between the requirements of this Standard and other requirements, a means of resolving the conflict shall be agreed between the Duty Holder and the Contractor.

2 WARNING

The Ministry of Defence (MOD), like its contractors, is subject to both United Kingdom and European laws regarding Health and Safety at Work, without exemption. All Defence Standards either directly or indirectly invoke the use of processes and procedures that could be injurious to health if adequate precautions are not taken. Defence Standards or their use in no way absolves users from complying with statutory and legal requirements relating to Health and Safety at Work.

3 RELATED DOCUMENTS

3.1 The publications shown below are referred to in the text of this Standard. Publications are grouped and listed in alphanumeric order.

Designation	Title
JSP 418	Ministry of Defence Sustainable Development and Environment Manual
JSP 815	Defence Environment and Safety Management

3.2 Reference in this Standard to any related document means in any Invitation to Tender or contract the edition and all amendments current at the date of such tender or contract unless a specific edition is indicated.

3.3 In consideration of clause **3.2** above, users shall be fully aware of the issue and amendment status of all related documents, particularly when forming part of an Invitation to Tender or contract. Responsibility for the correct application of standards rests with users.

3.4 DStan can advise regarding where related documents are obtained from. Requests for such information can be made to the DStan Helpdesk. How to contact the helpdesk is shown on the outside rear cover of Def Stans.

4 DEFINITIONS

For the purpose of this Standard the definitions in Annex A shall apply. Defined terms are indicated by the use of **emboldened** text on the first occasion of their use in each section.

5 ABBREVIATIONS

Abbreviation	Definition
ALARP	As Low As Reasonably Practicable
MOD	Ministry of Defence

6 GENERAL REQUIREMENTS

6.1 The Contractor shall identify all safety legislation, regulations, standards and (in conjunction with the **Duty Holder**), MOD Policy relevant to the safety of the system.

6.2 The Contractor shall demonstrate compliance with all relevant safety legislation, regulations, standards and MOD Policy by defining and meeting specific **safety requirements**.

6.3 The Contractor shall demonstrate compliance with all safety requirements specified in the contract.

6.4 The Contractor shall define the **system**, its boundaries and its **operating environment**, in agreement with the Duty Holder. The definition of the system shall include all relevant elements that constitute the system.

6.5 Input from MOD stakeholders and other stakeholders will be required to enable a demonstrably safe system to be produced. The Contractor shall implement measures, in co-operation with the Duty Holder, to provide the opportunity for effective stakeholder representation to be achieved, particularly during the safety **risk management** activities.

6.6 Where work is sub-contracted, the Contractor shall put measures in place to ensure that the requirements of this Standard continue to be met.

6.7 Information Management

6.7.1 The Contractor shall provide the Duty Holder with visibility of the safety process through the life of the contract.

6.7.2 The Contractor shall pass information to the Duty Holder, or other organisations as agreed with, or directed by, the Duty Holder, where that information is necessary for other parties to be able to meet their safety responsibilities.

6.7.3 The Contractor shall agree with the Duty Holder the format for all contracted safety related deliverables.

6.7.4 The Contractor shall implement a suitable configuration management process for all safety work.

6.7.5 The Contractor shall maintain consistency between safety related documentation and the system configuration.

7 ROLES AND RESPONSIBILITIES

7.1 The Contractor shall provide evidence that tasks within their control that influence safety are carried out by individuals and organisations that are demonstrably competent to perform those tasks. The Contractor shall provide the resources necessary for the tasks to be completed satisfactorily.

7.2 Project Manager

7.2.1 The Contractor shall nominate a project manager who has the authority to act on behalf of the Contractor. The project manager shall be the primary point of contact between the Contractor and the Duty Holder.

7.2.2 The project manager shall be responsible for meeting the requirements of this Standard.

7.3 Project Safety Manager

The Contractor shall appoint a project safety manager who has the authority to manage safety on the project on behalf of the project manager. The project safety manager shall be the primary point of contact for safety issues.

7.4 Safety Committee

7.4.1 The Contractor shall establish a **safety committee** that allows participation of all relevant stakeholders.

7.4.2 The safety committee shall oversee, review and endorse safety management and safety engineering activities. Where the Duty Holder, or a delegated representative of the Duty Holder does not chair the safety committee, then the safety committee shall make recommendations to the Duty Holder on safety matters that require formal Duty Holder agreement before proceeding, e.g. **ALARP** judgements.

7.4.3 Records of key decisions made by the safety committee shall be detailed in the Safety Case.

8 SAFETY MANAGEMENT

8.1 The Contractor shall produce a **Safety Management Plan**.

8.1.1 The Safety Management Plan shall detail the specific actions and arrangements required to operate a Safety Management System and define safety milestones for the project. It shall provide the link between safety requirements and general management processes for the project, to ensure that safety is achieved and maintained in a planned way.

8.1.2 The Safety Management Plan shall be reviewed and updated regularly throughout the life of the contract.

8.2 The Contractor shall agree the Safety Management Plan with the Duty Holder.

8.3 The Contractor shall define, document within the Safety Management Plan, operate and maintain an auditable Safety Management System.

8.3.1 The Safety Management System shall provide the framework for the Contractor's organisation to direct and control its safety management activities, including the organisational structure, processes, procedures, techniques and methodologies.

8.4 The Contractor shall demonstrate that safety management has been integrated into a Systems Engineering approach that gives due consideration to safety alongside related issues.

9 SAFETY CASE

9.1 The Contractor shall produce a Safety Case for the system on behalf of the Duty Holder. The Safety Case shall consist of a structured argument, supported by a body of evidence, that provides a compelling, comprehensible and valid case that a system is safe for a given application in a given environment.

9.2 Where appropriate, the Contractor shall ensure that any related Safety Cases already in existence are utilised and integrated as necessary.

9.3 For a pre-existing system that is being upgraded, refitted, or subject to other design changes, and for which there is no existing Safety Case, the Contractor shall produce a Safety Case that addresses safety aspects within bounds agreed with the Duty Holder.

9.4 The Contractor shall develop, maintain and refine the Safety Case through the life of the contract. In developing the Safety Case the Contractor shall address the full life of the system.

9.5 The Safety Case shall contain a structured argument demonstrating that the evidence contained therein is sufficient to show that the system is safe. The argument shall be commensurate with the potential risk posed by the system, the complexity of the system and the unfamiliarity of the circumstances involved.

9.6 Safety Case Reports

9.6.1 A **Safety Case Report** is a key deliverable that summarises the Safety Case at a particular instant in time. It provides **assurance** to the Duty Holder that safety is being managed effectively, highlights areas of safety-related project risk requiring management attention and gives stakeholders visibility of the status of the Safety Case.

9.6.2 The Contractor shall produce Safety Case Reports as contracted on behalf of the Duty Holder.

10 RISK MANAGEMENT

10.1 Risk management is the process of ensuring that **hazards** and potential **accidents** are identified and managed, and is a process managed within the **Safety Management System**. The outputs from the risk management process are a key part of the **Safety Case**. The Contractor shall identify all hazards and potential accidents, so far as is reasonably practicable, and manage their associated **risks** as appropriate. All safety risks shall be reduced to levels that are **ALARP**. The Contractor shall also seek to ensure that all risks are **broadly acceptable**. Where this is not possible, risks shall be reduced to levels that are both **tolerable** and ALARP.

10.2 The Contractor shall implement a safety risk management process that operates through the life of the contract and addresses the full life of the **system**.

10.3 The Contractor shall implement a **Hazard Log** and manage it as part of the Safety Management System. The Hazard Log shall be the primary mechanism for providing traceability of the safety risk management process and assurance of the effective management of hazards and accidents. The Hazard Log shall be updated through the life of the contract to ensure that it accurately reflects risk management activities.

10.4 Hazard Identification and Hazard Analysis

10.4.1 The Contractor shall carry out Hazard Identification and Hazard Analysis to identify credible hazards and potential accidents associated with the system and to determine the related accident sequences.

10.4.2 The Contractor shall demonstrate the adequacy of the Hazard Identification and Hazard Analysis process and the suitability of the techniques employed.

10.4.3 The Hazard Identification and Hazard Analysis shall be reviewed, and revised with the agreement of the **Duty Holder**, through the life of the contract, as the system changes or as relevant information becomes available that has a bearing on safety.

10.4.4 Where a hazard is identified that is outside the scope of the Contractor's control, this shall be recorded in the Hazard Log and notified to the Duty Holder. Any such hazard shall only be closed when the Duty Holder, or the owner of the hazard, confirms that the risk has been reduced to a level that is ALARP and broadly acceptable or tolerable. Similarly, if another party notifies the Contractor of a relevant, credible hazard, this shall be incorporated into the Hazard Log. The notifying party shall be kept informed of the status of the hazard as appropriate.

10.5 Risk Estimation

10.5.1 The Contractor shall carry out Risk Estimation to determine systematically the severity of the **Consequence** and the likelihood of occurrence, for the hazards and potential accidents within each **accident sequence**.

10.5.2 The Contractor shall determine systematically the overall risk posed by the system.

10.5.3 The Contractor shall demonstrate the effectiveness of the Risk Estimation process and the suitability of the techniques employed.

10.5.4 All assumptions, data, judgements and calculations underpinning the Risk Estimation shall be recorded in the Safety Case, such that the risk estimates can be reviewed and reconstructed.

10.5.5 The Risk Estimation shall be reviewed, and revised with the agreement of the Duty Holder, through the life of the contract, as the system changes or as relevant information becomes available that has a bearing on safety.

10.6 Risk and ALARP Evaluation

10.6.1 Unless otherwise specified, the Contractor shall establish **Tolerability Criteria** based on relevant legislation, standards and MOD policy, in agreement with the Duty Holder. These shall form the basis for making an assessment as to whether a risk is broadly acceptable, tolerable, or unacceptable.

10.6.2 The Contractor shall undertake Risk and ALARP Evaluation for the identified hazards and accidents associated with the system, and for the system as a whole against the Tolerability Criteria.

10.6.3 The Contractor shall review and revise the Risk and ALARP Evaluation through the life of the contract, as the system changes or as relevant information that has a bearing on safety becomes available.

10.6.4 The Contractor shall demonstrate the effectiveness of the Risk and ALARP Evaluation process and the suitability of the techniques employed.

10.7 Risk Reduction

10.7.1 Where the risk from the system is assessed not to be broadly acceptable and ALARP or tolerable and ALARP, as defined by the Tolerability Criteria, the Contractor shall carry out Risk Reduction by identifying and implementing a combination of **mitigation strategies** until the Tolerability Criteria are met, enabling Risk Acceptance to take place. Mitigation strategies shall be selected according to the following precedence:

- a. Eliminate the hazard.
- b. Reduce the risk associated with the hazard or accident by implementing engineered mitigation strategies.
- c. Reduce the risk associated with the hazard or accident by implementing mitigation strategies based on **human factors**.

10.7.2 The Contractor shall demonstrate the effectiveness of the process for identifying and selecting mitigation strategies.

10.7.3 The Contractor shall define safety requirements that lead to the realisation of the selected mitigation strategies.

10.7.4 The Contractor shall maintain records to show traceability between hazards and potential accidents, and the associated safety requirements.

10.7.5 If, after a risk has been reduced to a level that is ALARP, it is still **unacceptable**, the Contractor shall advise the Duty Holder and a way forward shall be agreed with the Duty Holder.

10.8 Risk Acceptance

10.8.1 The Contractor shall agree with the Duty Holder a process for Risk Acceptance.

10.8.2 Individual risks, and the overall risk posed by the system, shall be accepted when the Contractor and the Duty Holder agree that sufficient evidence has been provided that all risks have been reduced to ALARP and are either broadly acceptable or tolerable as defined by the Tolerability Criteria. If the Contractor and Duty Holder are unable to reach agreement, then they should both enter into negotiations, arbitrated by another mutually agreeable independent party.

11 SAFETY REQUIREMENTS AND EVIDENCE

11.1 The set of safety requirements for a system will include requirements that directly relate to compliance with safety legislation, regulations, standards or MOD policy, requirements that are stated in the contract, requirements that relate to the realisation of mitigation strategies and requirements that are derived from other safety requirements.

11.2 The Contractor shall maintain records to show traceability between each safety requirement and the source of that requirement.

11.3 Provision of Evidence

11.3.1 Within the Safety Case, the Contractor shall provide compelling evidence that safety requirements have been met. Where possible, objective evidence shall be provided. The quantity and quality of the evidence shall be commensurate with the potential risk posed by the system, the complexity of the system and the unfamiliarity of the circumstances involved.

11.3.1.1 For safety requirements that lead to the realisation of mitigation strategies, the quantity and quality of the evidence shall be commensurate with the level of Risk Reduction resulting from that safety requirement.

11.3.2 The Contractor shall provide diverse evidence that safety requirements have been met, such that the overall safety argument is not compromised by errors or uncertainties in individual pieces of evidence. The strategy for providing diverse evidence shall be agreed with the Duty Holder.

11.3.3 The Contractor shall integrate within the Safety Case the evidence that shows that safety requirements have been met for elements of the system, to demonstrate that the overall safety requirements have been met.

12 INTERFACES

12.1 The Contractor shall define processes and procedures for managing interfaces and document them in the Safety Management Plan.

12.2 Where other organisations require information in order to meet a particular safety requirement, the Contractor shall identify and provide, or ensure the provision of, such information as is necessary to allow interfaces between systems to be safely implemented and to be shown to be safe.

12.3 Where the Contractor requires information from another organisation in order to be able to meet a particular safety requirement, this shall be arranged with the agreement of the Duty Holder. Any dependencies on other organisations shall be recorded in the Safety Case.

13 MANAGING CHANGES AND FEEDBACK

13.1 Planning for, and responding to, changes is necessary for the maintenance of safety. This includes both changes to the system itself and changes external to the system. Effective management of feedback ensures that safety is maintained and provides data that can be used to validate the Safety Case.

13.2 Where changes are anticipated, the Contractor shall develop and implement plans for proactively identifying and addressing those changes to ensure the safety of the system.

13.3 The Contractor shall operate a change control system so that the safety impact of any planned or unplanned change is identified and assessed. Where necessary, remedial action shall be taken to ensure the safety of the system.

13.4 The Contractor shall operate a process for identifying defects or failures, including human errors, and assessing their impact on safety. Where necessary, remedial action shall be taken to ensure the safety of the system.

13.5 The Contractor shall operate a process for analysing incident, accident and near-miss reports arising from use of the system and similar systems within the Contractor's, or MOD's experience, assessing the impact on safety. Where necessary, remedial action shall be taken to ensure the safety of the system. This process shall address both individual incidents and longer-term trends.

13.6 The Contractor shall operate a process for recording and analysing relevant data from the use of the system, in order to validate, and strengthen where appropriate, the argument and evidence in the Safety Case. Where this data may refute the argument or evidence in the Safety Case, the Contractor shall carry out an analysis to determine the true situation. If it is confirmed that the data refutes the Safety Case, remedial action shall be taken to ensure the safety of the system.

13.7 The Contractor shall carry out remedial action in accordance with the risk management requirements of this Standard. The Contractor shall review and update the Safety Case to ensure that it is valid.

13.8 The Contractor shall inform the Duty Holder at the earliest practicable opportunity of issues arising from changes, feedback or remedial action that have an impact on safety or the demonstration of safety.

13.9 At all stages, the Contractor and Duty Holder shall agree priorities for implementing changes, and on ways of managing changes, to ensure the most efficient and effective use of resources for the preservation of safety.

14 SAFETY AUDITS

14.1 **Safety audits** provide assurance to the Duty Holder and other stakeholders that safety is being managed effectively and that safety management complies with relevant legislation, regulations, standards, MOD policy, specific contractual requirements and the documented Safety Management System.

14.2 The Contractor shall carry out safety audits as specified in the contract, or where not specified, in accordance with the reasonable requirements of the Duty Holder. The Contractor shall produce and make available at all reasonable times a safety audit plan that states when safety audits will be carried out and describes the scope of each audit. The scope of these audits may be influenced by the scope of **Independent Safety Auditor** activity if an Independent Safety Auditor is appointed. The Duty Holder shall have the right to require changes to the safety audit plan where such changes are, in the opinion of the Duty Holder, necessary in order to enable the Duty Holder to meet Health and Safety obligations.

14.3 If a safety audit is carried out by the Contractor's internal resources, the Contractor shall ensure that the safety audit team is independent from those areas within the Contractor's organisation that are subject to audit.

14.4 A safety audit report shall be produced following each safety audit that fully describes the findings of the audit. Reports from safety audits shall be deliverables to the Duty Holder.

14.5 The appointment of an Independent Safety Auditor shall be at the sole discretion of the MOD and where appointed, shall be either:

- a.** An Independent Safety Auditor employed by the Duty Holder who may be either a Crown Servant or a third party in which case the Contractor shall provide access at all reasonable times to all premises and records of the Contractor and his sub-contractors, whether specified in the contract or not, which in the opinion of the Duty Holder are necessary for proper performance of the role of Independent Safety Auditor. The Contractor shall have the right to:

- reject the appointment of a nominated Independent Safety Auditor where the Contractor can demonstrate that the nominated Independent Safety Auditor is employed or otherwise directly connected with another party who is a direct competitor of the Contractor, or where appointment of the nominated Independent Safety Auditor would be prejudicial to the commercial interests of the Contractor.
 - require any Independent Safety Auditor who is not a Crown Servant, nominated by the Duty Holder to enter into express obligations of confidence in relation to any information owned by or held under obligations to other parties by the Contractor acquired in exercise of the role of Independent Safety Auditor.
- b.** An Independent Safety Auditor employed by the Contractor, whether as employee, consultant or sub-contractor, in which case the Duty Holder shall have the right to reject, without giving reasons for the rejection, the appointment of any nominated Independent Safety Auditor.

14.5.1 The choice of Independent Safety Auditor exercised by the Duty Holder shall be as specified in the contract or as clause **14.5.a** if not specified.

14.6 The Contractor shall identify and implement timely remedial actions to rectify any non-conformities found in safety audits.

14.7 The resolution of non-conformities arising from safety audits shall be recorded and reported to the Duty Holder.

ANNEX A
DEFINITIONS

A.1 For the purpose of this Standard, the following definitions apply:

Term	Definition
Accident	An unintended event, or sequence of events, that causes harm .
Accident Sequence	The progression of events that results in an accident .
ALARP	As Low As Reasonably Practicable. A risk is ALARP when it has been demonstrated that the cost of any further Risk Reduction , where the cost includes the loss of defence capability as well as financial or other resource costs, is grossly disproportionate to the benefit obtained from that Risk Reduction .
Assurance	Adequate confidence and evidence, through due process, that safety requirements have been met.
Broadly Acceptable	A level of risk that is sufficiently low that it may be tolerated without the need to demonstrate that the risk is ALARP .
Consequence	The outcome, or outcomes, resulting from an event.
Duty Holder	A MOD person with specific responsibilities for the safety management of the system .
Harm	Death, physical injury or damage to the health of people, or damage to property or the environment.
Hazard	A physical situation or state of a system , often following from some initiating event, that may lead to an accident .
Hazard Analysis	The process of describing in detail the hazards and accidents associated with a system, and defining accident sequences .
Hazard Identification	The process of identifying and listing the hazards and accidents associated with a system .
Hazard Log	The continually updated record of the hazards , accident sequences and accidents associated with a system . It includes information documenting risk management for each hazard and accident .
Human Factors	The systematic application of relevant information about human capabilities, limitations, characteristics, behaviours and motivation to the design of systems .
Incident	The occurrence of a hazard that might have progressed to an accident , but did not.
Independent Safety Auditor	An individual or team, from an independent organisation, that undertakes audits and other assessment activities to provide assurance that safety activities comply with planned arrangements, are implemented effectively and are suitable to achieve objectives; and whether related outputs are correct, valid and fit for purpose.
Mitigation Strategy	A measure that, when implemented, reduces risk .

Operating Environment	The total set of all external natural and induced conditions to which a system is exposed at any given moment.
Risk	Combination of the likelihood of harm and the severity of that harm .
Risk Acceptance	The systematic process by which relevant stakeholders agree that risks may be accepted.
Risk Estimation	The systematic use of available information to estimate risk .
Risk and ALARP Evaluation	The systematic determination, on the basis of Tolerability Criteria , of whether a risk is broadly acceptable , tolerable or unacceptable , and whether it is ALARP or whether any further Risk Reduction is necessary.
Risk Management	The systematic application of management policies, procedures and practices to the tasks of Hazard Identification , Hazard Analysis , Risk Estimation , Risk and ALARP Evaluation , Risk Reduction and Risk Acceptance .
Risk Reduction	The systematic process of reducing risk .
Safe	Risk has been demonstrated to have been reduced to a level that is ALARP and broadly acceptable or tolerable, and relevant prescriptive safety requirements have been met, for a system in a given application in a given operating environment .
Safety Audit	A systematic and independent examination to determine whether safety activities comply with planned arrangements, are implemented effectively and are suitable to achieve objectives; and whether related outputs are correct, valid and fit for purpose.
Safety Case	A structured argument, supported by a body of evidence that provides a compelling, comprehensible and valid case that a system is safe for a given application in a given operating environment .
Safety Case Report	A report that summarises the arguments and evidence of the Safety Case , and documents progress against the safety programme .
Safety Committee	A group of stakeholders that exercises, oversees, reviews and endorses safety management and safety engineering activities.
Safety Management	The application of organisational and management principles in order to achieve safety with high confidence.
Safety Management System	The organisational structure, processes, procedures and methodologies that enable the direction and control of the activities necessary to meet safety requirements and safety policy objectives.
Safety Management Plan	A document that defines the strategy for addressing safety and documents the Safety Management System for a specific project.
Safety Programme	The part of a Safety Management Plan that documents safety timescales, milestones and other date-related information.
Safety Requirement	A requirement that, once met, contributes to the safety of the system or the evidence of the safety of the system .
Sub-System	A system that is an element of another system .
Super-System	A system that includes at least one element that is itself a system .

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ANNEX A (Continued)

System	A combination, with defined boundaries, of elements that are used together in a defined operating environment to perform a given task or achieve a specific purpose. The elements may include personnel, procedures, materials, tools, equipment, facilities, services and/or software as appropriate.
Tolerability Criteria	Quantitative or qualitative measures for determining whether a risk is unacceptable, tolerable or broadly acceptable .
Tolerable	A level of risk between broadly acceptable and unacceptable that may be tolerated when it has been demonstrated to be ALARP .
Unacceptable	A level of risk that is tolerated only under exceptional circumstances.

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