



Ministry
of Defence

JSP 520
Safety and Environmental Management of
Ordnance, Munitions and Explosives over the
Equipment Acquisition Cycle

Part 2: Guidance
Vol 14: Audit

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Foreword

The Secretary of State for Defence (SofS) through his Health Safety & Environmental Protection (HS&EP) Policy Statement requires Top Level Budget Holders and Trading Fund Chief Executives to conduct defence activities with high standards of HS&EP. They are expected to achieve this by implementing robust, comprehensive Health Safety & Environmental Management Systems.

As Director of the Defence Safety Authority (DSA), I am responsible for providing MOD regulatory regimes for HS&EP in the Land, Maritime, Nuclear and OME domains. The OME regulations set out in JSP 520 are mandatory and take precedence where Ordnance, Munitions or Explosives are involved. Full compliance is required, except as set out in JSP815 Defence Health and Safety and Environmental Protection. It is the responsibility of commanders and line managers at all levels to ensure that personnel, including contractors, involved in the management, supervision and conduct of defence activities are fully aware of their responsibilities.

DSA regulators are empowered to enforce these regulations.

JCS Baker

Depty Director Defence Safety Authority

Defence Authority for Health Safety and Environmental Protection

Preface

How to use this JSP

1. This JSP explains the requirements needed to demonstrate that the inherent risks from Ordnance, Munitions and Explosives (OME) are either Broadly Acceptable or Tolerable and As Low as Reasonably Practicable (ALARP) for the MOD, third parties and the environment.
2. It applies to all OME:
 - a. Ordnance e.g., weapons including directed energy, small arms, delivery platforms including barrels, launchers, fire systems.
 - b. Munitions e.g., missile, shell, mine, demolition store, pyrotechnics, mines, bullets, explosive charges, mortars, air launched weapons, free fall weapons.
 - c. Explosives e.g., propellants, energetic material, igniter, primer, initiatory and pyrotechnics irrespective of whether they evolve gases (e.g. illuminants, smoke, delay, decoy, flare and incendiary compositions).
3. It is designed to be used by personnel who are responsible for OME employed by or contracted to the MOD.
4. It contains the policy and direction about the processes involved and the techniques to be applied throughout the acquisition cycle or **Manufacture to Target or Disposal Sequence (MTDS)**.
5. The JSP is structured in two parts:
 - d. Part 1 Directive. Provides the regulations that shall be followed in accordance with Statute, or Policy mandated by Defence or on Defence by Central Government.
 - e. Part 2 – Guidance. Provides the guidance that should be followed to assist the user in complying with regulations detailed in Part 1.

Related Documents	Title
JSP375	MOD Health and Safety Handbook.
JSP390	Military Laser Safety
JSP418	MOD Corporate Environmental Protection Manual.
JSP430	Management of Ship Safety and Environmental Protection.
JSP454	Land Systems Safety and Environmental Protection.
JSP482	MOD Explosives Regulations.
JSP762	Weapons and Munitions Through Life Capability
JSP815	Defence Health and Safety and Environmental Protection.
MAA/RA	Military Aviation Authority Regulatory Publications (MRP)

Coherence with other Defence Authority Policy and Guidance.

6. Where applicable, this document contains links to other relevant JSPs, some of which may be published by different Defence Authorities. Where particular dependencies exist, these other Defence Authorities have been consulted in the formulation of the policy and guidance detailed in this publication.

Training

7. This JSP has been developed for use by Suitably Qualified and Experienced Personnel (SQEP) involved with OME. Simply following this JSP will not fulfil obligations arising from other legislation.

Further Advice and Feedback- Contacts

8. The owner of this JSP is DSA-DOSR-PRG-ATL. For further information about any aspect of this guide, or questions not answered within the subsequent sections, or to provide feedback on the content, contact:

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Authority

9. This issue of JSP 520 volume 1 supersedes all previous volume 1.

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Status

11. All hard copies of JSP520 Part 1 or 2 are uncontrolled. The JSP will be updated whenever additional or improved guidance becomes available and will be reviewed at least annually.

12. Readers are encouraged to assist in the continued update of this document by informing the DSA-DOSR-PRG-4 of any required changes particularly those resulting from their experiences in the development of OME safety regimes.

13. To check the latest amendment status reference should be made to JSPs within the Library section of the Defence Intranet.

Cautionary note about references

14. The responsibility for the use of correct and relevant standards, procedures and working practices remains with the Project Team Leader (PTL). No assurance is given that the documents referenced within JSP520 Part 1 and 2 are up to date or that the list is comprehensive. It will be necessary to check applicability for the intended use and where relevant confirm documents accuracy and suitability to the intended use.

Amendment Record

Issue 4.2 changes highlighted in YELLOW					
No.	Section	Par	Amendment Summary	Agreed	Date
4.2	Preface	1	Remove practical handbook	PRG-4	16/06/15
4.2	Preface	2a	Added direct energy	PRG-4	16/06/15
4.2	Preface	3	Removed Land, Sea, Air	PRG-4	16/06/15
4.2	Preface	5	Added MTDS	PRG-4	16/06/15
4.2	Preface	6	JSP added	PRG-4	16/06/15
4.2	Preface	8	Sentence Removed	PRG-4	16/06/15
4.2	Preface	9	Organisational DSA changes	PRG-4	16/06/15
4.2	Preface	10	Rewording	PRG-4	16/06/15
4.2	Preface	12	Reworded	PRG-4	16/06/15
4.2	Preface	13	Organisational DSA changes	PRG-4	16/06/15
4.2	1	1	Organisational DSA changes	PRG-4	16/06/15
4.2	1	3	Rewording	PRG-4	16/06/15
4.2	1	10	During an audit	PRG-4	16/06/15
4.2	1	13	Asquisition System Guidance	PRG-4	16/06/15
4.2	1	15	Organisational DSA changes	PRG-4	16/06/15
4.2	1	16	Organisational DSA changes	PRG-4	16/06/15

Issue 4.1 changes					
No.	Section	Par	Amendment Summary	Agreed	Date
4.1	Forward	-	New forward from C Baker	Du-Policy	27/11/14
4.1	Preface	2	Small arms	Du-Policy	27/11/14
4.1	Preface	3	Who are	Du-Policy	27/11/14
4.1	Preface	5	About, to be applied	Du-Policy	27/11/14
4.1	Preface	6	Regulations, shall and should	Du-Policy	27/11/14
4.1	Preface	9	New address	Du-Policy	27/11/14
4.1	Preface	10	Update to 4.1	Du-Policy	27/11/14
4.1	Preface	12	Update to 4.1	Du-Policy	27/11/14
4.1	1	11	Footnote Vol page 4	Du-Policy	27/11/14

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1 Overview

1. The Defence OME Safety Regulator (DOSR) is required by Director Defence Safety Authority (DSA), to ensure that the overarching Safety and Environmental Management System (SEMS) is understood and is operating effectively in organisations with responsibility for Ordnance Munitions and Explosives (OME) safety management within the land, maritime and air domains.

2. Safety Auditing is defined as “the systematic, independent and documented process for obtaining evidence and evaluating it objectively to determine the efficiency, effectiveness and reliability of the total health and safety management system. Organisations with responsibility for OME shall be subject to regular audit of its SEMS. Periodicity is dependent on the level of risk perceived or assessed, the value that could be added by audit, or as required by management. Arrangements shall be in place for completion of corrective actions arising from audits.

3. The purpose of audit is to ensure that OME systems comply with MOD regulations, Statutory requirements and internal processes for safety and environmental management. It provides a systematic and independent examination of an OME SEMS to determine its effectiveness. Periodic audits will ensure the continued effectiveness of an OME SEMS, and enables any deficiencies to be addressed by appropriate and timely action.

Audit Aims and Objectives

4. The aim and objectives of an audit is to ensure compliance with the Regulations in JSP 520 Part 1, in particular consideration should be given to the:

- a. Provision of evidence that the OME SEMS is operating effectively.
- b. Identification of opportunities to improve the OME SEMS.
- c. Identification of opportunities to raise awareness of safety issues.
- d. Identification of any training needs and competency requirements.
- e. Provision of compliance assurance with applicable safety standards, both statutory and non-statutory.
- f. Recognition of good practice.
- g. Communication of findings to the management review process.
- h. Improvement of the SEMS processes.

Audit Arrangements

5. Project Team Leaders (PTL) should establish an internal audit programme for their overarching SEMS, and for individual project SEMS, as appropriate, which examines the safety management of OME. Only a Suitably Qualified and Experienced Person (SQEP) should conduct internal audits on their own area. If this is not possible, then a SQEP may be seconded either internally (e.g. peer review) or from an external source (e.g. Independent Safety Auditor (ISA)).

6. For complex or high risk programmes, consideration should be given to appointing an ISA to carry out audits of the SEMS.

7. Audits should be programmed and undertaken prior to the completion of a significant phase of a project, when major milestones ¹ are reached and / or in line with the agreed audit programme. The audit programme should be recorded in the SEMP. Audits may be undertaken by different authorities and organisations depending on a system's position in the acquisition cycle, the level of scrutiny or expertise required.

8. Interfaces between MOD and the contractor should be subjected to audit and review, and regular reviews of the quality of the safety management arrangements. Those responsible should also take appropriate action to ensure it has adequate arrangements in place, to control any residual safety risks it needs to manage, as well as monitor future performance.

Types of Audit

Self Audit

9. Conducting self-assessments through audit is a Defence Equipment and Support (DE&S) mandated safety management tool ² and can be a valuable means of obtaining feedback on whether objectives are being met, and whether internal processes and procedures are being adhered to. This can be carried out by a SQEP from within the PT or from another project team. Self-assessments aid in identifying and gathering evidence that may be required during external audits and will ensure familiarity with the audit process.

Independent Safety Audit (ISA)

10. As part of a PT's assurance arrangements, and to maintain safety integrity across large and / or high risk projects, it is strongly recommended that the PTL, or equivalent, considers the appointment of an ISA **during the project**, in consultation with the Safety and Environmental Panel (SEP), to undertake the task of audits and other assessment activities to:

- a. Provide assurance that safety activities comply with planned arrangements.
- b. Provide assurance that safety activities are implemented effectively and are suitable to achieve objectives.
- c. Confirm whether related outputs meet requirements.

11. The ISA should have a well defined role that is clearly understood by all parties. This role might include providing assurance by auditing the safety process being followed, or by undertaking some safety assessment independently to check the primary assessment. The role may change at different points through the life cycle, but the ISA's independence should not be compromised by involving them in activities such as setting Safety Requirements, tender assessment or providing

¹ JSP520 Part 1: OME Safety Submission.

² Acquisition Safety and Environmental Management System Part 1 – Policy.

specific advice on engineering changes. The ISA should be independent of the organisation being supported and be able to demonstrate competence relating to the system(s) under review. Further guidance on competence is provided within the JSP520 Part 2 ³.

12. The primary role of an ISA is assessment and validation of the SEMS and its outputs. This is usually carried out through audit of the following:

- a. The safety management arrangements set out in the SEMP.
- b. The safety activities set out in the contractor's Safety Programme Plan.

13. As such, the ISA should sit as a full member of the SEP and their role and function should be defined in the SEMP. Further guidance on the role, selection of, and work performed by an ISA can be found on the Acquisition System Guidance (ASG).

Director Technical (DTech) Audit

14. DTech provides Chief Defence Material (CDM) with assurance that safe and environmentally compliant procedures and processes are defined and complied with within DE&S, so that equipment, systems, support, logistics and the operation of DE&S are safe and environmentally compliant. The Quality Safety Environmental Protection (QSEP) Branch, provides policy, advice and guidance to support the continuous improvement of DE&S acquisition based safety and environmental protection issues. The QSEP Branch may undertake audits of the DE&S Operating Centres.

Defence Safety Authority (DSA) Audit

15. The DOSR will undertake risk based audits of systems as directed by DSA-DOSR-TL in accordance with DOSR Safety Audit Manual ⁴. An audit programme is proposed by the DSA-DOSR-Assurance-ATL and endorsed by DSA-DOSR-TL at the beginning of each reporting year and may include audits at Top Level Budget (TLB) level, or at other organisational levels.

16. Audits at 2 Star Level within the DE&S Operating Centre will be conducted in accordance with the DOSR Safety Audit Manual sponsored by DSA-DOSR-TL. It should be noted that DOSR auditors may also be involved in audits under the authority of other DSA Regulators e.g., Defence Maritime Regulator (DMR) or the MAA.

17. Reporting to the DOSR TL. The DSA-DOSR-Assurance-ATL and DSA-DOSR-PRG-ATL will prepare an Audit Report, which is included in the Assurance Report to the DOSR-TL, containing details of:

- a. OME Systems and Safety Management activities e.g. Incident Reporting, audited during the report year.
- b. Summary of audit results.

³ JSP520 Part 2, Vol 5: Competence.

⁴ DOSR Audit and Assurance Manual.

- c. An analysis of the deficiencies found and remedial action to be taken to address trends.
- d. An assurance statement on the effectiveness of OME safety management.
- e. Any lessons learned.

Audit Process

18. The process for conducting an audit, either internally or externally, should be based on the following steps:

- a. The publication of an audit programme and notification to the auditee of the intention to carry out an audit. The auditor will ensure that personnel involved are notified in good time.
- b. Issue of the audit questionnaire to the auditee in sufficient time to allow the questionnaire to be completed (citing evidence) and returned to the auditor prior to the audit.
- c. On receipt of the completed questionnaire, the auditor will arrange a suitable date for the audit.
- d. During the audit the auditor will meet the key personnel and progress through the questionnaire in a logical order, entering any comments as supplied.
- e. Following completion of the audit the auditor will discuss his or her findings with the auditee; this may identify a number of rectification actions. Where opportunities for improvement have been identified these will be discussed with the auditee and agreed.
- f. The auditor will draft an audit report recording observations made, degree of compliance and, if applicable, agreed areas of improvement. In addition, any rectification actions will be recorded. The report will be issued to the auditee and should be jointly signed by both parties as a record of the work and actions agreed.
- g. Follow-up audits may be required to monitor the progress of recommendations made for improvement, or rectification actions. On completion of the follow-up audit, the auditor will send a follow up audit report to the auditee for agreement and signature.