



**Ministry  
of Defence**

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

**Part 2: Regulation Guidance D1 – Safety  
Performance Reporting and Feedback**

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# Foreword

1. This Part 2 JSP 520 provides guidance in accordance with the policy set out in Part 1 of this JSP. The guidance is sponsored by the Defence OME Safety Regulator (DOSR) who is responsible for developing, promulgating and enforcing the MOD regulatory regime for OME Safety and Environmental Protection across Defence. It provides policy-compliant business practices which should be considered best practice in the absence of any contradicting instruction. However, nothing in this document should discourage the application of sheer common sense.

# Preface

## How to use this JSP

2. This JSP is intended as a practical handbook to explain 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.
3. It applies to all Ordnance (weapons, delivery platforms), Munitions (missiles, shells, pyrotechnics, mines, bullets, explosive charge (ejector seats release)) and Explosives (propellants, energetic material).
4. It is designed to be used by personnel responsible for OME employed by or contracted too the MOD, Land, Sea, Air and third parties etc.
5. It provides guidance on best practice to ensure that the risks associated with OME are either Broadly Acceptable or Tolerable and ALARP when In-Service, Handled, Processed, Stored, Transported and Disposed etc.
6. It contains the policy and direction on the process involved and the techniques to apply throughout the acquisition cycle and when used in military operations, training or ceremonials etc.
7. The JSP is structured in two parts:
  - a. Part 1 – Directive which provides the direction that must be followed in accordance with Statute, or Policy mandated by Defence or on Defence by Central Government.
  - b. Part 2 - Guidance, which provides the guidance and best practice that will assist the user to comply with the Directive(s) detailed in Part 1.

Related JSPs	Title
JSP375	MOD Health and Safety Handbook.
JSP418	MOD Corporate Environmental Protection Manual.
JSP430	Management of Ship Safety and Environmental Protection.
JSP454	Land Systems Safety and Environmental Protection.
JSP815	Defence Health and Safety and Environmental Protection.
MAA01	Military Aviation Authority Regulatory Policy.

## Coherence with other Defence Authority Policy and Guidance.

8. 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

9. This JSP has been developed for use by Suitably Qualified and Experienced Personnel (SQEP) involved with Ordnance, Munitions and Explosives. It assumes that they will have a broad knowledge of Health and Safety Legislation. Simply following this JSP will not fulfil all your obligations arising from other legislation.

## Further Advice and Feedback- Contacts

10. The owner of this JSP is DSEA-DOSR-DU Policy. For further information on 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

11. JSP520 Issue 4 (Mar 14) D1: Safety Performance Reporting and Feedback supersedes JSP520 Issue 3 Part 2 UK MOD's OME SMS Guidance dated December 2010.

12. This work is crown copyright and the intellectual property rights of this publication belong exclusively to the Ministry of Defence. However, material or information contained in this publication can be reproduced, stored in a retrieval system or transmitted in any form provided it is used for the purposes of furthering safety management.

## Status

13. All hard copies of JSP520 Issue 4 Part 1 or 2 are uncontrolled. The JSP will be updated whenever additional or improved guidance becomes available. This JSP will be reviewed at least annually.

14. Readers are encouraged to assist in the continued update of this document by informing the DSEA-DOSR-DU-Policy of any required changes particularly those resulting from their experiences in the development of OME safety regimes.

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

## Cautionary note on references

16. 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				
Amdt No.	Paragraph	Amendment Summary	Agreed	Date

Issue 3 compared to Issue 4					
Issue 3		Issue 4		Editorial	Date
Page	Paragraph	Page	Paragraph		
2	3.2.1	3	8	6 <sup>th</sup> Editorial	30/12/2014
2	3.2.2	3	9	6 <sup>th</sup> Editorial	30/12/2014
2	3.3.1	3	10	6 <sup>th</sup> Editorial	30/12/2014
2	3.3.2	3	11	6 <sup>th</sup> Editorial	30/12/2014
2	3.3.3	3	12	6 <sup>th</sup> Editorial	30/12/2014

# Contents JSP520 Pt 2 D1: Safety Performance Reporting and Feedback

<b>Foreword</b> .....	<b>i</b>
<b>Preface</b> .....	<b>ii</b>
How to use this JSP .....	ii
Coherence with other Defence Authority Policy and Guidance.....	ii
Training .....	iii
Further Advice and Feedback- Contacts .....	iii
Authority .....	iii
Status .....	iii
Cautionary note on references .....	iii
Amendment Record .....	iv
Contents JSP520 Pt 2 D1: Safety Performance Reporting and Feedback.....	1
<b>1 Overview</b> .....	<b>2</b>
Overview .....	2
Active Systems.....	2
Reactive Systems .....	3
Introduction .....	3
Requirement for Incident Reporting .....	3
Incident Reporting Procedure.....	3
Identification of Indicators and Measures.....	4

# 1 Overview

## Overview

1. Organisations need to measure the overall effectiveness of the implementation of its Safety and Environmental Management System (SEMS) and to assess how well it is operating to planned arrangements. These requirements are detailed within Joint Service Publication (JSP) 815<sup>1</sup>. A low accident rate or a good performance rating, even over a period of years, is not a guarantee that risks are being effectively controlled and managed. This is particularly true within Ordnance, Munitions and Explosives (OME) where accidents or poor performance have a low probability of occurrence, yet significant major hazards exist.

2. There is a further requirement for both corporate management systems and project safety cases to develop a range of “leading indicators” that measure and provide assurance that policies and processes are being implemented and operating effectively, and to provide early warning of deterioration. The range of indicators should be regularly reviewed to ensure that areas of vulnerability and organisational change are being addressed.

1. Monitoring of safety performance against the predetermined plans and standards is a Project Team Leader’s (PTL) responsibility. This process reinforces the commitment of management to the implementation of safety standards throughout the organisation and aids in the development of the organisation’s safety culture.

3. Performance is measured against agreed standards to identify when and where improvements need to be implemented. Two types of systems are required to monitor performance, these are Active Systems and Reactive Systems.

4. The objectives of Active and Reactive monitoring are:

- a. To determine the immediate causes of sub-standard performance.
- b. To identify the underlying causes and the implications for the design and operation of the System.

## Active Systems

5. These monitor the design, development, installation and operation of management arrangements, risk control systems and workplace precautions. For OME this includes monitoring of the equipment’s SEMS and reporting of this through the Project Team (PT)’s Safety and Environmental Panel (SEP) and / or Safety and Environmental Management Committee (SEMC) where applicable.

6. The audit process can be used to verify that a SEMS is complying with planned arrangements, and whether these arrangements are implemented effectively and are

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<sup>1</sup> JSP815 Defence Health and Safety and Environmental Protection.

suitable to achieve its aims and objectives. The audit requirements are defined in JSP520 Part 2 <sup>2</sup>.

## Reactive Systems

### Introduction

7. These monitor accidents, incidents, near misses, ill health incidents, system performance, corrective action and other evidence of deficient safety performance. For OME this includes reporting and management of all incidents through the Munitions Incidents Database (MID) Cell.

### Requirement for Incident Reporting

8. DSEA Policy requires feedback of all available information from the Duty Holder which may effect OME safety and have a responsibility to review significant trends in OME incidents / accidents, and directing further action as required.

9. Currently, MOD OME incidents, reported from the Land, Sea and Air domains, are routed through different reporting chains and are detailed in the domain specific JSPs i.e. Land (JSP454 <sup>3</sup>), Maritime (JSP430 <sup>4</sup> and JSP 862 <sup>5</sup>) and Air (MRP <sup>6</sup>). Where this OME Safety Policy applies, there is a requirement for visibility of all OME incidents, and reporting procedures are detailed in JSP482 <sup>7</sup>. In order to achieve this requirement, a tri-service reporting, recording and corrective action / measure system is required, with a centralised database managed by the MID Cell within Defence Equipment and Support (DE&S) Weapons Eng.

### Incident Reporting Procedure

10. Details of all OME related Incidents, including all near misses, are to be reported to the relevant stakeholders as defined within the PT's Safety and Environmental Management Plan (SEMP), for example, Advising Authorities, Service Administrative Authorities (e.g. Fleet Explosives for Navy). The MID cell is to have sight of every incident in order to achieve a global view of incidents and to search for trends that may not be evident to a single PT or Front Line Command (FLC).

11. The reporting of incidents to the MID Cell enables the administration of a comprehensive database of all OME related incidents. Reports are to be submitted to the PT and FLC with details of investigations, findings and recommendations pertaining to the OME system in accordance with JSP482.

12. The MID Cell is required to advise the D Weapons and DOSR TL of any Critical OME incidents <sup>8</sup> and advise D Weapons and DOSR TL of any significant OME incident trends. The knowledge behind what causes incidents is continually developing, allowing trends to be monitored. An annual report giving an overview of

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<sup>2</sup> JSP520 Pt 2 E2: Audit.

<sup>3</sup> JSP454 Land Systems Safety and Environmental Protection.

<sup>4</sup> JSP430 Management of Ship Safety and Environmental Protection.

<sup>5</sup> JSP862 MOD Maritime Explosives Regulations.

<sup>6</sup> MAA 01 Military Aviation Authority Regulatory Policy.

<sup>7</sup> JSP482 MOD Explosive Regulations.

<sup>8</sup> JSP482 MOD Explosive Regulations.

major OME accidents and incidents, and evidence of developing trends should be produced at the end of each calendar year and forwarded to D Weapons and DOSR TL.

## **Identification of Indicators and Measures**

13. Objective evidence obtained through monitoring, measurement and audit shall be available to support management's view on the effectiveness of its management systems and the safety of OME Projects.

14. Over reliance on failure data to monitor performance (lagging indicators) can mean that improvements or changes are only determined after something has gone wrong. There is a need for a range of indicators that include performance data (leading indicators) to provide assurance that policies and processes are being implemented and operating effectively. Early warning of deterioration within key systems or processes provides an opportunity to avoid major incidents.

15. Performance measurement and audit systems should demonstrate more than compliance; they should focus on areas of significant risk and aim to deliver improvement in safety performance. Both success and failure should be learning experiences on which the drive for continual improvement can be sustained, and a culture that encourages upward reporting of both "bad news" and "good practice" should be pursued. Legislation, Regulations and Codes of Practice provide sources of mandated performance measurement of good practice and may have particular application for OME.