



Defence
Safety Authority

DSA 03-OME Part 1 (JSP 520)- Defence Code of Practice (DCOP) and Guidance Notes for OME Acquisition

Defence OME Safety Regulator

DOSR



DSA VISION

Protecting Defence personnel and operational capability through effective and independent HS&EP regulation, assurance, enforcement and investigation.

PREFACE

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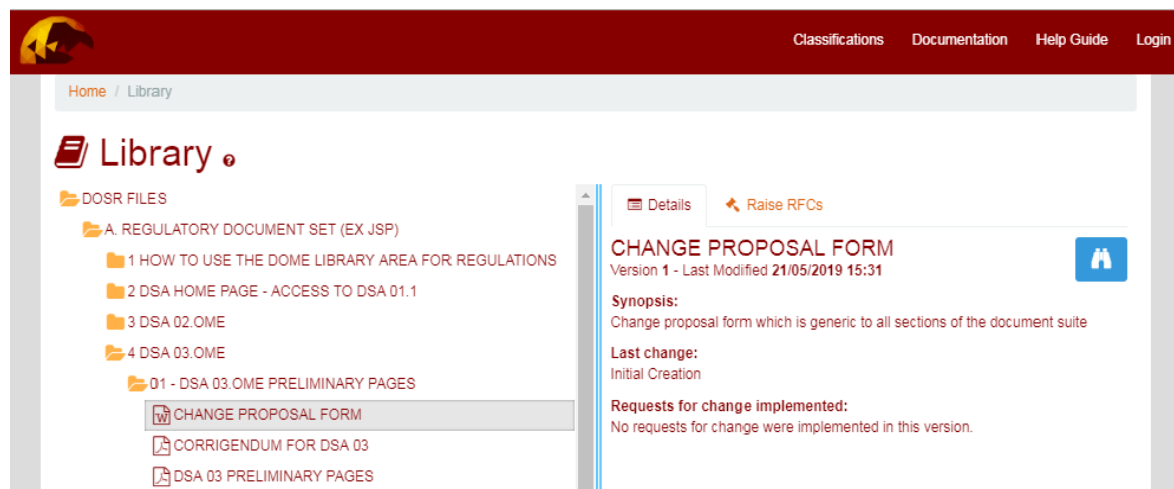


Figure 1. Change Proposal Form (Word version) Location

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10. The document owner is the DOSR. For further information about any aspect of this document, or questions not answered within the subsequent sections, or to provide feedback on the content, contact:

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1 Overview

1. A Safety and Environmental Management System (SEMS) is the organisational structure, processes, procedures and methodologies that enable the direction and control of the activities necessary to meet safety and environmental requirements and-policy objectives.
2. The SEMS is established at the initiation of a Project, for the management of safety risks and environmental impacts throughout acquisition cycle¹ of the Ordnance, Munitions and Explosives (OME).

Aims and Objectives

3. The aim of the SEMS, throughout the life of the OME system, is to ensure that:
 - a. Safety risks are reduced to either Broadly Acceptable or Tolerable and As Low as Reasonably Practicable (ALARP).
 - b. There is cross-reference with safety and legal reviews for compliance with International Law, including Protocols additional to the Geneva Conventions.
 - c. Environmental features of the OME system are compliant with Joint Service Publication (JSP) 418².
4. To fulfil this aim the SEMS will ensure that the following objectives are met:
 - a. The OME system complies with all legal requirements, e.g. International, EU and UK legislation, and relevant standards.
 - b. The OME system complies with all applicable MOD policies.
 - c. The OME system is maintained through life by continuous assessment of safety and environmental management arrangements and system performance.
 - d. The OME system only poses safety risks that are either Broadly Acceptable or Tolerable and ALARP.
 - e. Environmental aspects are managed through the application of JSP418.
 - f. Roles and responsibilities are defined and clearly understood and individuals are competent to undertake the tasks required of them.
 - g. Individuals have relevant delegated authority to undertake the role.
 - h. Attention is given to any cross-cutting environment and safety issues, i.e. where the activities of the OME system could affect other platforms/systems.
 - i. Arrangements are in place to liaise with safety management support organisations and regulatory authorities.

² JSP418 MOD Corporate Environmental Protection Manual.

- j. OSRP Assurance Statement are obtained and maintained and that any conditions continue to be complied with.
- k. Communication and co-operation arrangements are in place with the relevant equipment and facility authorities.
- l. Effective arrangements are in place for the identification, notification, recording, investigation (by a competent person) and reporting of incidents and accidents.
- m. Equipment, processes and systems are operated, and facilities are used within identified environments and safety constraints of the OME system.

Generation of The Safety and Environmental Management System

5. All Project Teams (PT) will satisfy the requirements of the domain-specific safety document relevant to the operating environments for that OME, by working within a robust integrated SEMS. For DSA 03.OME applied systems, the SEMS will also provide a description of the PT's system for managing inherent OME safety and complying with the requirements of DSA 02.OME. This may be in the form of a standalone PT's OME SEMS, integrated within the Platform's SEMS, or as an annex to the main document.

6. The content of the PT's OME SEMS assumes the existence of an overarching domain-specific PT SEMS which has been produced to the requirements of an alternative functional safety policy, e.g. Sea (DSA 02.DMR³), Land (DSA03 DLSR Movement and Transport Safety Regulations, Dangerous Goods Manual (DGM)) or Air (MRP⁴), with the DSA 02.OME requirements integrated into it. The OME PT should develop its SEMS in accordance with DSA 02/ 03.OME requirement and guidance within Project Oriented Safety Management System⁵ (POSMS) and Project Oriented Environmental Management System⁶ (POEMS).

³ DSA 02.DMR Management of Ship Safety and Environmental Protection.

⁴ MAA 01 Military Aviation Authority Regulatory Policy.

⁵ See Acquisition System Guidance (ASG).

⁶ See Acquisition System Guidance (ASG).

2 Management of the SEMS

Introduction

1. The management of the SEMS is important to the effectiveness of the system. This section presents guidance on the management of the SEMS through a Safety and Environmental Panel (SEP) or Safety and Environmental Management Committee (SEMC) (Where a project team has a number of similar systems under its management). It also describes the Safety and Environmental Management Plan (SEMP), a plan used to set out and record the safety and environmental management arrangements for the system.

Safety and Environmental Panel

2. The purpose of the SEP is to manage the safety risks and the environmental aspects through the operation of the SEMS. It provides a forum for relevant stakeholders to effectively monitor and co-ordinate all related activities. This can be presented as a standalone OME SEP or integrated into the Platform's SEP.

3. The SEP should be established during the outset of a project and comprise those authorities with responsibilities for acquiring, supporting and operating OME. The chairmanship of the SEP should normally sit with the Project Team Leader (PTL) (Platform or OME system as appropriate), or delegated person, who has the authority to implement any proposed changes that may be needed to sustain or improve safety risks and / or environmental impacts. If the PTL, or equivalent, elects to delegate the chairmanship of the safety panel and / or nominate staff to undertake safety management responsibilities, they are to ensure that those staff are Suitably Qualified and Experienced Personnel (SQEP).

4. The required frequency of SEP meetings should be documented and depends on various factors including the stage of the project and the complexity of the system. Meetings will be required at greater frequency during periods of significant review and decision making, typically when Project milestones are approaching.

5. SEP meetings may occur less frequently during periods of stability, such as during the in-service phase, when fewer safety decisions are necessary. However, the SEP still has an important duty to provide oversight of the Safety and Environmental management activities; and ensure that it remains valid and monitoring safety performance. This will include considering whether the system or its usage is changing and seeking counter-evidence that shows that the predicted level of Safety performance is not being achieved in practice.

6. The SEP may meet as a body, or its work may be included as a permanent item in another forum (in this instance care should be taken that all relevant stakeholders are included), or simply through written communications. The key principles are to ensure that all relevant authorities are consulted, actions are agreed and properly allocated and a record is kept of proceedings. The panel can either be established for a single system, or a family of system variants.

7. It is important that the SEP is represented at the appropriate level and that members are included in all stages of preparation and review of the Safety and Environmental Case. The SEP is also responsible for carrying out regular safety / environmental reviews and audits of the SEMS.
8. Procedures for establishing the SEP and guidance on its Terms of Reference (ToR) can be found in the POSMS⁷ and POEMS⁸.

Safety and Environmental Management Committee

9. Where a project team has a number of systems under its management, e.g. a Cluster Project Team, consideration should be given to establishing a top level SEMC to set out and agree the safety and environmental management policy and strategy for those systems. The agreed policy and strategy should be recorded in the SEMS.
10. The SEMC is responsible for monitoring and controlling the activities of all individual projects as shown in Figure 1. The chairmanship of a Project Team SEMC should sit with the PTL.

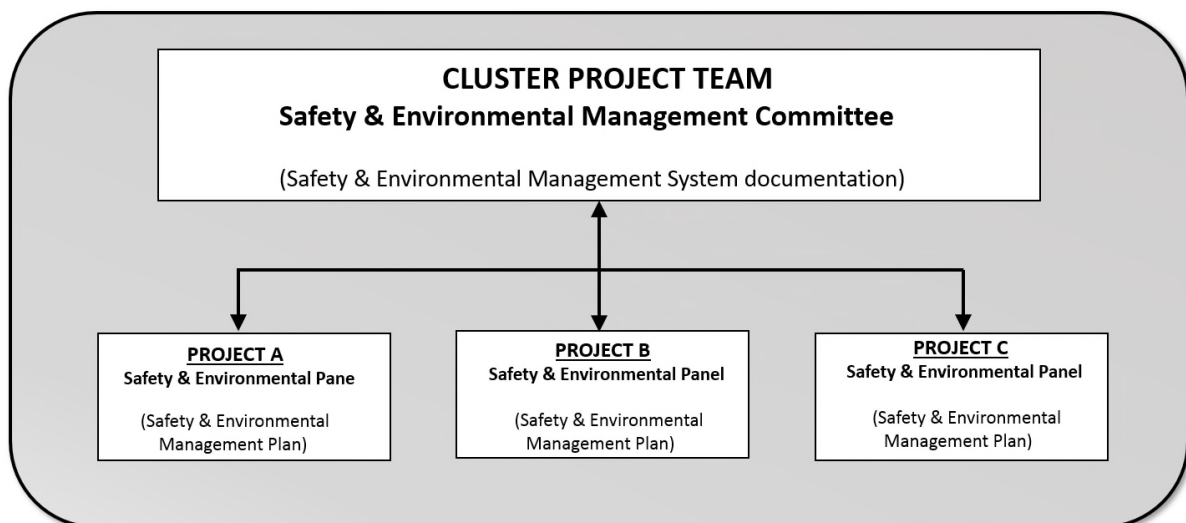


Figure 1: Example of a Top Level Organisational Structure within a Cluster Project Team

⁷ ASG POSMS:-SMP01 and SMP02.

⁸ ASG POEMS: EMP01 to EMP03.

Safety and Environmental Management Plan

11. The SEMP is used to set out and record the safety and environmental management arrangements for the system, and the actions and processes to be followed to ensure safe application throughout its lifecycle. It should clearly be a definable part of the Through Life Management Plan (TLMP) and should state the responsibilities of both MOD and its contractors for the management of safety and environmental aspects.

12. The SEMP is the formal record of the way in which the MOD intends to manage the safety risks and the environmental impacts of a system throughout its life. It should be reviewed at least annually to determine if it still meets business needs and those reviews recorded. Procedures for drafting the SEMP and guidance in its contents can be found in the POSMS⁹ and POEMS¹⁰ for the environmental aspects.

⁹ ASG POSMS: SMP03.

¹⁰ ASG POEMS: EMP06.

3 Urgent Operational Requirements

1. Safety and Environmental Management applies to Urgent Operational Requirements (UORs) as for any other project. However, it is recognised that, because of the short timescales and pressures under which UORs are procured, it may not be practical to apply the full requirements of the SEMS prior to a UOR coming into service. Nevertheless, MOD will ensure that it discharges its duty of care.
2. The basic principle to apply is that MOD will understand, and be able to demonstrate, that it can manage the main safety risks the system is likely to present. Any possible shortfalls in the design will be clearly identified and will be addressed if there is any planning for the future development, or extended use, of the system.
3. In the case of UORs the following basic elements of a SEMS should be established:
 - a. SEP – key issues are to:
 - 1) Agree the extent of the Safety and Environmental Case (boundaries / interfaces).
 - 2) Define principal safety requirements and acceptance criteria.
 - 3) Provide input to safety assessment (particularly from the user and maintainer).
 - 4) Review and recommend acceptance of the Safety and Environmental Case and agree on the future strategy for its development should the use of the system be extended.
 - b. SEMP can be brief but needs to define:
 - 1) Those with the key responsibility for safety (post and responsibility).
 - 2) Agreed requirements and acceptance criteria.
 - 3) The safety assessment process.
 - 4) What safeguards will be adopted to give early identification of potential problems in-service e.g. through full accident and failure reporting, additional briefings etc. recognising that there may be limitations in the safety assessment process.
4. The PT will continue to gather evidence to demonstrate risks are either Broadly Acceptable or Tolerable and ALARP. This evidence will be used if the OME is brought into core service.
5. Bringing a UOR OME into core service requires full compliance with a DSA 02.OME SEMS to be completed.

4 Maintaining a SEMS

1. The control and maintenance of the SEMS is important to the effectiveness of the system. The SEMS should include only what is necessary to cover the application of the system and should be organised in a clear and effective way. In order for the SEMS to remain effective, the PTL will ensure it is maintained, reviewed and updated throughout the life of the OME system.
2. The review and update of the SEMS will depend upon the following:
 - a. A change in legislative and regulatory requirements.
 - b. A change in MOD Policy and Certification requirements.
 - c. A change in civil or MOD Standards to be complied with.
 - d. A change in design / modification of the equipment.
 - e. A change in design of any other equipment with which the OME system has an interface or which can have an impact on the OME system's operation or maintenance.
 - f. A change in use / operating role (including disposal).
 - g. A change in training / procedures.
 - h. A change on Emergency / Contingency Arrangements.
 - i. An accident or incident or reported near miss.
 - j. A system/equipment defect or failure.
 - k. An organisational change, e.g. roles and responsibilities, change of personnel.
 - l. The results of an audit requiring an update to documentation.
 - m. A periodic review, as set by the PT.
3. Top Level Budget holders (TLBs) / PTLs (depending on the level at which the change takes place) should assess the impact on safety and environmental related roles when organisational changes are undertaken; and review risk assessments associated with recent organisational changes once such changes are made.
4. The PTL should develop processes to control all documents and data relating to the SEMS. Revisions to existing documents should be readily identifiable and relevant; personnel should be notified of all changes. All valid documents need to be available in appropriate, designated locations. Personnel affected by each change should be involved in defining and implementing new policies, processes and procedures.
5. Changes to the documents should be reviewed and approved by authorised personnel, i.e. SEP or SEMC, at which time, outdated uncontrolled versions should be destroyed. Only the person responsible for the documentation control should retain copies of obsolete documents.

Safety Information and Retention

6. A key aim of the safety regime should be to reduce and / or harmonise information, improving previous methods of safety assurance by collecting all relevant documentation together.
7. Hard copies of endorsed originals of safety case reports, certificates of safety and contractual documents should be maintained and available. Legacy projects, may rely on paper files of past records.
8. The update, configuration control and review of safety documents and information will be managed via the safety management system, ensuring that:
 - a. Safety documents, records and data are coherent, complete and up to date.
 - b. Safety evidence is consistent, compatible and to an equivalent standard and quality across the acquisition cycle.
 - c. The configuration control, document retention, procedure update and training procedures could be modified from existing quality procedures.
 - d. Urgent safety-related information will be made visible to all relevant Duty Holders without delay.
 - e. Obsolete documentation is retained for future reference.
9. Further guidance on configuration control and management is detailed earlier in this document.
10. MOD policy for retaining safety related information is to comply fully with the requirements of civil statute. Specific legal requirements for keeping records are defined in DSA01.1, with further guidance in POSMS¹¹. Attention is drawn to the requirement that where there is no statute stipulating information retention times for specific hazards, the MOD Legal Adviser advises that safety related documentation (e.g. Safety Cases and safety certification) should be kept for ten years after equipment disposal. When equipment is sold, all such pertinent documentation should be handed to the new Delegated Authority.

¹¹ ASG POSMS: SMP12