



Defence
Safety Authority

DSA 02

Defence Ordnance, Munitions and Explosives (OME) Regulations

Incorporating:

- *Defence Ranges Regulations*
- *Defence Major Accident Control Regulations (MACR)*

Version **1.1**

Defence OME Safety Regulator

DOSR



DSA VISION

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

Foreword

As the Defence Ordnance, Munitions and Explosives (OME) Safety Regulator (DOSR) of the Defence Safety Authority (DSA), I am responsible for regulation of OME safety across Defence activities¹ through the provision of the MOD regulatory regime for the OME domain. As a DSA Regulator I am empowered through my Letter of Authority and Responsibility to enforce these regulations. The Regulations contained within this publication are mandatory and take precedence where OME is involved. Full compliance is required, except as set out in DSA01.1 Defence Policy for 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 involving OME are competent and fully aware of their responsibilities.

The regulations are based on mandatory provisions, in the form of legislation, and on the recommendations of the DOSR Stakeholder Committee, its functional Safety Committees for OME, Ranges and Major Accident Control and applicable NATO safety Groups (e.g. AC/326-CNAD Ammunition Safety Group and the NATO Range Safety Working Group (NRSWG), all of which set MOD standards and safety principles.

This publication is written with the intention of supporting all MOD personnel to carry out their activities associated with OME in a safe manner whilst also assisting them with their legal obligations, compliance with MOD Regulations and with NATO standards and doctrine. This in-turn should enable Commanders to make informed OME-related risk decisions that provide proportionate and appropriate degrees of protection from the inherent risks of OME. Ultimately, this is fundamental to the continuing safeguarding of members of the public, UK Defence personnel and our assets and by extension, the effectiveness of our operational capability.

Robert LF MacNaught

**Defence OME Safety Regulator
Defence Safety Authority**

¹ Specifically, activities associated with OME (including Lasers), Ranges and Major Accident Control.

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Preface

Authority

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

Status

2. This document:
- a. Incorporates and supersedes the legacy JSPs 390, 403, 482, 498 and 520.
 - b. Is uncontrolled when printed.
 - c. Will be updated as part of a continuous improvement programme but at least 12-monthly from the period of document issue date.

Requests for Change

3. Proposed changes, recommendations or amendments to DOSR Regulations and Guidance publications can be submitted by anyone using the Request for Change form available on DOME.
4. Any post and grammar change proposals can be approved or rejected by the **DOSR Authors** without involvement of the associated Working Group.
5. Technical change proposals will need to be submitted to the associated Working Group for review and approval or rejection.
6. When incorporating changes care is to be taken to maintain coherence across regulations.
7. Changes effecting Risk to Life will be published immediately.
8. Other changes will be incorporated as part of routine reviews.

Review Process

9. The **DOSR team** will ensure these OME Regulations remain fit for purpose by conducting reviews through the DOSR Governance Committees, involving all Stakeholders.

Further Advice and Feedback

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:

| | |
|------------------|--|
| Job Title | DOSR-Policy, Regulations and Guidance ATL |
| Phone | 030 679 85864 |
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| Address | Juniper #5004, Level 0, Wing 1, Abbey Wood North, Bristol, BS34 8QW |

Amendment Record

| Version 1.0 | | | | | |
|-------------|--------------|-------|-----------------------------------|--------|----------|
| No. | Section | Para | Amendment Summary | Agreed | Date |
| 1 | | | Front Cover updated | Pubs-1 | 15/06/20 |
| | | | DSA Vision Statement updated | Pubs-1 | 15/06/20 |
| | Preface | 4 & 9 | Removed 'PRG' | Pubs-1 | 15/06/20 |
| | Preface | 10 | Email address updated | Pubs-1 | 15/06/20 |
| | Introduction | 8 | Removed '/Exemption' | Pubs-1 | 15/06/20 |
| | Introduction | 11-20 | Inserted new 'Waivers' paragraphs | Pubs-1 | 15/06/20 |
| | 02 OME (21) | AMC | Removed 'and Exemptions' | Pubs-1 | 15/06/20 |
| | 02 OME (21) | AMC | Removed 'or Exemption' | Pubs-1 | 15/06/20 |
| | 02 OME (22) | AMC | Inserted additional AMC text | Pubs-1 | 15/06/20 |
| | 02 OME (23) | AMC | Inserted additional AMC text | Pubs-1 | 15/06/20 |
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Introduction

Applicability

1. This publication applies to all personnel at all levels in the MOD who have duties and responsibilities for Health, Safety and Environmental Protection (HS&EP) associated with activities involving Ordnance, Munitions and Explosives (OME) (including Lasers), Ranges and Major Accident Control. These Regulations should be read with reference to DSA 01.1 - Defence Policy for Health, Safety and Environmental Protection. Further guidance is available in DSA 03.OME Defence Code of Practice (DCOP) and Guidance Material.

Regulatory Authority

2. These Regulations are issued under the authority of the DOSR. Through the SofS' Charter and by Letter of Authority from DG DSA, the DOSR is empowered to regulate OME activity across Defence where it enjoys dis-applications, exemptions, derogations (DED) from statutory requirements, where there is no statutory requirement, where assurance of specific hazardous activities is required and where a specific delegation to the SofS exists. These Defence Regulations are therefore issued on that basis. Following the most recent review of DEDs there are currently:

- a. 218 rules in UK statute which apply to the DOSR area of regulation.
- b. 129 rules which have no identified DED.
- c. The remaining 89 rules equate to 107 DEDS of which there are 50 dis-applications, 35 exemptions and 22 derogations. Details of the rules and specific DEDs can be viewed in the DSA/Maritime Legislation Database: [\[Link\]](#).

3. In addition to the requirement to follow these Defence Regulations, the ability of DOSR to provide effective oversight of and challenge to operational safety is contingent on TLBs and Defence Agencies recognising and discharging the expectations placed on them by the SofS for complying with statutory health, safety and environmental protection requirements.

Citation

4. These MOD Regulations will be referred to as the Defence Ordnance, Munitions and Explosives (OME) Regulations. They define the boundaries of DOSR's authority and responsibility which will be kept under regular review, consulting with MOD Stakeholders and other Defence Regulators as necessary on interfaces and where there may be overlaps of responsibility.

Key Principles of Regulation of OME Safety

5. In the light of the lessons learned from the Haddon-Cave Nimrod Review, it was recommended that the MOD should promulgate and adhere to 4 Key Principles, to help assure and ensure an effective Safety regime in the future. Therefore, the following 4 Key Principles (abbreviated to “LIPS”) underpin the regulation of Defence OME Safety, Defence Ranges Safety and Defence Major Accident Control:

- a. **Leadership.** There should be strong leadership from the very top, demanding and demonstrating by example active and constant commitment to OME safety as the overriding priority. A strong leader influences others to reach a goal and their attitudes and beliefs about OME safety drive their behaviour. This behaviour sends a powerful message to staff at all levels about how seriously they should take OME safety.
- b. **Independence.** There should be thorough independence, and organizational separation, between those delivering Defence outputs and those maintaining standards and enforcing behaviours through the setting of regulatory and assurance goals, particularly in the setting of OME safety policy, regulation, auditing and enforcement.
- c. **People.** There should be much greater focus on people in the delivery of high standards of OME safety (and not just on process and paper). OME safety ultimately depends on People. Whatever elaborate Processes and Paper requirements are in place, it is People who ultimately have to ensure they take care, pay attention, think things through and carry out the right tasks and procedures at the right time and exercise caution where necessary.
- d. **Simplicity.** OME regulatory structures, processes and rules should be as simple and straightforward as possible so that everyone can understand them. Complexity is normally the enemy of Safety and the friend of Danger. A safe system therefore is generally a simple system. Consequently, these Regulations will be written in clear, simple language and be as succinct as possible.

Scope

6. The scope of these Regulations covers the following key areas:
- a. **OME.** Safety and Environmental Management of OME over the Equipment Acquisition Cycle and, In-Service and Operational Safety Management of OME.
 - b. **Ranges.** All types of MOD Ranges used for training purposes or conducting Test, Evaluation, Research and Proofing (TERP) activities. The 4 elements covered in both cases are Safe People, a Safe Place, Safe Equipment and Safe Practice.
 - c. **Major Accident Control.** Ensuring operators of MOD establishments that are within scope of the regulations take all necessary measures to prevent major accidents involving dangerous substances and have robust plans in place to limit the consequences to people and the environment of any major accidents which do occur.

Definition of OME

7. The definitions of OME are taken from the agreed North Atlantic Treaty Organisation (NATO) definitions of OME, as stated within Allied Ordnance Publication (AOP) 38². These are:

a. **Ordnance.** A weapon system with its associated munitions and auxiliary material needed to fire the munition.

Examples: weapons, directed energy, small arms, barrels, launchers, delivery platforms, fire systems, etc.

b. **Munitions.** An item which, to perform its function, requires to contain energetic materials. A complete device, charged with explosives, propellants, pyrotechnics, initiating compositions or nuclear, biological or chemical material, for use in military operations. Notes:

(1) In logistic configuration, the logistic packaging of the munition is included.

(2) In NATO documents, the term ammunition is synonymous with munition.

(3) Munitions (plural) is used as overarching term for military weapons, munition and equipment.

(4) For use in connection with offence, or defence, or training, or non-operational purposes, including those parts of weapon systems containing explosives.

Examples: missile, shell, mine, demolition store, pyrotechnics, mines, bullets, explosive charges (ejector seats release), mortars, air launched weapons, free fall weapons, torpedoes etc.

c. **Explosives.** Explosive is defined as a substance (or a mixture of substances), which is capable by chemical reaction of producing gas at such a temperature and pressure as to cause damage to the surroundings. A substance manufactured with a view to producing a practical effect by explosion or pyrotechnic effect. Notes:

(1) The term explosive material includes solid and liquid high explosives, propellants and pyrotechnics.

(2) It also includes pyrotechnic substances even when they do not evolve gases.

(3) The term “explosive” is often used in short for “explosive material”.

² AOP38 Glossary of Terms and Definitions on Ammunition Safety.

(4) An explosive atmosphere of gas, vapour or dust is not considered to be an explosive.

(5) For the purposes of the OME Safety Management Policy, the definition of Explosives extends to novel materials designed to create an explosive effect.

Examples: propellants, energetic material, igniter, primer, initiatory and pyrotechnics irrespective of whether they evolve gases (e.g. illuminates, smoke, delay, decoy, flare and incendiary compositions) etc.

Compliance with these Regulations

8. **Regulation.** Regulation is defined as a “prescribed rule or authoritative direction”. Within the context of this publication, the Regulations are defined as overarching mandatory activities which have to be followed without exception (unless a **waiver** has been formally issued) by the Regulator. They will contain the executive verb “**shall**” and this is the only place where this executive verb will be used. Where a regulation states that a person “shall” do something, he or she has no choice but to do it. Whenever possible, regulations will be written in the positive sense. If this is not feasible then where the provision states that a person “shall not” do something, he or she is prohibited from doing a certain act. The DOSR, as the Regulatory body, must be notified if a Regulated Entity considers that they cannot comply with any of these regulations. Some of these Regulations cut across all 4 parts of this publication and therefore shall be applied across the OME domain.

9. **Acceptable Means of Compliance.** Each Regulation has an associated Acceptable Means of Compliance (AMC) which represents the agreed means by which conformance with Regulatory requirements can be demonstrated. The AMC have been agreed in consultation between the Regulator and the Regulated Community through the various governance committees.

10. **Defence Code of Practice.** Good Practice guidance expected to be followed by Defence personnel/organisations to demonstrate compliance with Defence Regulations or Policy.

Regulatory Waivers from these Regulations

Introduction

11. As mentioned in the Foreword to this publication, these Regulations are mandatory and take precedence where OME is involved. However, it is recognised that there may be occasions when the Regulated Community is unable to comply with specific Regulations in this publication. In such circumstances, a temporary Regulatory Waiver from extant Regulations shall be applied for from DOSR. Waivers will be approved or rejected at the appropriate level within DOSR. This signatory level will be dependent upon the complexity of the issue or whether the request is novel and/or contentious. The process outlined in paragraph 14 below is to be used.

12. When considering whether to grant a Regulatory Waiver, DOSR must be satisfied that any risks associated with non-compliance have been considered fully by the appropriate Duty Holder (DH)/Accountable Person (AP)/Risk Owner (RO) as appropriate. For DH-Facing organizations applying for a Regulatory Waiver, endorsement is required from the relevant DH/AP/RO noting that multiple DH/AP/RO inputs may be required.

13. Where the criteria for DOSR to grant a Regulatory Waiver cannot be met (such as when an SDH considers that a risk from a Defence activity cannot be mitigated so that it is ALARP and Tolerable), in accordance with the SofS Policy Statement on HS&EP, they are to inform the Permanent Secretary and refer the risk to SofS. The regulated entity should ensure that DOSR's input is included should they choose to take this course of action.

Waiver Application Process

14. **Initial Contact with DOSR.** Applicants should contact DOSR-Assurance-ATL as soon as a requirement to for a Regulatory Waiver is identified to discuss the specific issue of concern and agree the format of the waiver submission and expectations, timescales and priorities for staffing the waiver application. For retrospective applications, DOSR will need to understand how safety is being managed whilst the Regulatory Waiver application is being processed. Once agreed, the waiver request will be allocated a reference number by DOSR; this reference number should be used by the originator in all future correspondence.

15. **Safety Assessment.** When the need for a new Regulatory Waiver or a renewal of an existing waiver is identified, a Safety Assessment should be completed and forwarded to the appropriate DH/AP/RO for staffing and approval, prior to it being sent to DOSR. The Safety Assessment should be produced in a clear format such as that detailed in [JSP 101 Defence Writing Guide, Part 1: Brief Template](#) and shall include the following material as a minimum:

a. **Justification.** A clear statement explaining the issue and the requirement for the application for a Regulatory Waiver. This should include details of the specific Regulation or other documentation that causes difficulty for compliance and a description of why the application for a Regulatory Waiver is considered justified. The details of any previous Regulatory Waiver, if relevant, should also be included.

b. **Risk Assessment and Consequence Analysis.** The application should include a 'suitable and sufficient'³ risk assessment outlining the risk mitigation management arrangements, supported by a full Consequence Analysis (CA). Supporting comments shall include evidence of risk referral and formal acknowledgement and acceptance of the associated risk(s), as being both ALARP and Tolerable, by the appropriate DH/AP/RO and include any additional comments and stipulations they deem are necessary. Any other supporting documentation should be annotated as references. Historical evidence is useful, but only as support to the risk mitigation plans.

³ The law states that a risk assessment must be 'suitable and sufficient': <https://www.hse.gov.uk/managing/delivering/do/profiling/the-law.htm>

c. **Expected Duration of Waiver.** Details of how long the waiver is expected to be in place before full compliance can be achieved. This should also include details of any 'Return to Green' plan.

16. **Submission to DOSR.** Once the assessment has been staffed and approved by the appropriate DH/AP/RO, the application for the Regulatory Waiver can then be made via email, with full contact details of the originator, to [DSA-DOSR-PRG\(MULTIUSER\)@mod.gov.uk](mailto:DSA-DOSR-PRG(MULTIUSER)@mod.gov.uk) or in writing to:

DOSR Assurance ATL
Defence OME Safety Regulator
Juniper, Wing 1, Floor 0, #5442
MOD Abbey Wood North
BS34 8QW

17. **Initial Handling Action.** DOSR will then establish if the Regulatory Waiver application contains the required information to progress the application. Key to this will be the justification and/or supporting evidence for the Regulatory Waiver.

18. **Handling Timescales.** It is expected that **from the time of receipt of all the required information** to releasing a response back to the originator should take no longer than 30 working days. DOSR may determine that additional justification and/or supporting evidence is required following the submission of a Regulatory Waiver application. If so, the originator may be invited to discussions to ensure there is full understanding of the issue. If it is likely that the 30 working days timescale will not be met, then the originator will be informed by the DOSR Desk Officer dealing with the application and regularly updated until the Regulatory Waiver is approved and issued or rejected. For rejections, the reasons for rejection will be included in any correspondence. In situations where the Regulated Community have to submit short-notice or large numbers of Regulatory Waiver requests, prior discussion with DOSR is highly recommended to ensure timely progression of the application(s).

19. **Approval/Rejection.** The Regulatory Waiver application will be considered and ultimately approved or rejected at the appropriate level in DOSR. Once completed, the DOSR's response will be sent to the originator and the originator's DH/AP/RO (as appropriate), with details of the agreement and any caveats that DOSR deems should be applied, such as enhanced monitoring or periodic review and any other requirements. Copies of the Regulatory Waiver will be communicated or forwarded to relevant DOSR stakeholders as necessary to ensure the audit and assurance process is kept informed.

20. **Validity and Cancellation of Regulatory Waivers.** DOSR Regulatory Waivers will be valid for **the stipulated timescale in the DOSR approval response**. If a renewal is required, then this needs to be applied for at least 30 working days before the Regulatory Waiver expiry date. Submission of a Regulatory Waiver request does not constitute compliance or guarantee that it will be approved. Units no longer requiring an extant Regulatory Waiver should submit a cancellation request, to DOSR.

Enforcement of these Regulations

21. The DOSR, with powers delegated from SofS through DG DSA as Defence Safety Authority, is empowered through his Letter of Authority and Responsibility to enforce these regulations. The DSA's Common Enforcement Policy is explained in detail in DSA 01.1 - Defence Policy for Health, Safety and Environmental Protection, Chap 7 - Regulation, Assurance and Enforcement.

Regulators' Code

22. In accordance with the DSA Charter, DOSR shall operate in a manner consistent with UK good practice for regulation as presented in the [Regulators' Code](#).

Annual Report

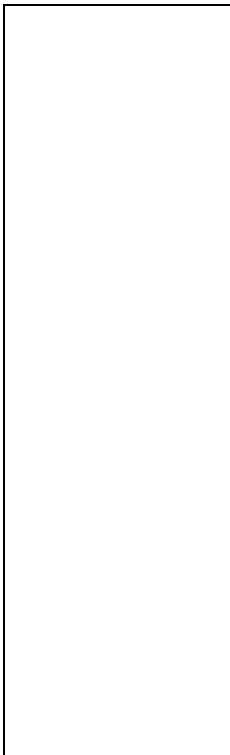
23. The DOSR is required to provide DG DSA with an Annual Report of the independent assurance of safety performance across Defence which contributes to DG DSA's Annual Assurance Report to SofS.

Part 1

Defence Regulations for OME Acquisition

Justification

1. This section provides the OME regulatory framework, which applies throughout the whole acquisition cycle. It follows therefore that some Regulations in this Part apply in Part 2 also. All of these requirements and scope of safety responsibilities apply equally to OME systems operated by MOD personnel and to systems being operated at the direction of the MOD by third parties and / or its contractors. It mandates the rules and standards, processes, inputs, outputs and independent reviews that collectively support claims of inherent safety of OME systems. The assessment of inherent OME safety shall cover those hazards that result from the initiation of OME systems, whether intentional or unintentional, and across all stages of the Manufacture to Target or Disposal Sequence (MTDS).
2. OME safety qualification relies, as a minimum, on two main aspects:
 - a. Providing documentary evidence of compliance of the design (the OME itself or sub-components) to agreed standards (e.g. Def Stan 07-085); and,
 - b. Providing documentary evidence of safety assessments covering all aspects of the OME's use (storage/handling/transport and functioning) and conducted according to agreed test standards (e.g. NATO STANAGs).
3. Inherent OME Safety is defined as the reduction of risks to at least tolerable and ALARP resulting from, and influencing, the safety of the explosive component(s) of Munitions or higher-level Ordnance systems. Inherent OME hazards can be classified into 4 groups, namely:
 - a. **Intrinsic hazards.** Those hazards presented by the explosive material in its quiescent state, such as toxicity, composition breakdown, gas / heat generation, material incompatibility etc.
 - b. **External and internal hazards.** Which could initiate the explosive component or have an adverse effect on the firing chain, such as spurious fire commands, EMC / E³ (Electro Magnetic Compatibility / Environmental Electromagnetic Effects) emissions, temperature / drop / shock / vibration, firing chain failure, aerodynamic heating, fragment and bullet attack etc.



c. **Hazardous consequences of initiation.** Including partial initiation (whether intentional or unintentional) of the explosive component, such as blast, fragment, noise, toxic efflux, heat etc.

d. **Post launch and dynamic safety hazards.** Such as loss of guidance control, unintended launch, ricochet, early burst, etc.

4. Responsibilities for safety issues that fall outside the definition of inherent OME safety shall be managed in accordance with policy requirements in the overarching domain-specific DSA safety regulations (Maritime, Land and Air) and associated publications even if they remain the responsibility of the DE&S SSR (Senior Safety Responsible).

5. Regulatory Governance is maintained through the Defence OME Safety Committee (DOMESC) which reports to the DOSR Stakeholder Committee (DOSR SC).

| Number | Title |
|-------------|---|
| 02 OME (1) | OME Design Requirements |
| 02 OME (2) | Appointment of an Independent OME Safety Adviser |
| 02 OME (3) | Safety and Environmental Case |
| 02 OME (4) | Manufacture to Target or Disposal Sequence (MTDS) |
| 02 OME (5) | Safety Risk Management |
| 02 OME (6) | Classification for Transportation and Storage |
| 02 OME (7) | Explosive Material (EM) Safety Qualification |
| 02 OME (8) | Initiation Systems Safety Qualification |
| 02 OME (9) | Other Components Safety Qualification |
| 02 OME (10) | Environmental Testing (Climatic and Mechanical) |
| 02 OME (11) | Electromagnetic Environmental Effects (E3) |
| 02 OME (12) | Insensitive Munition (IM) Assessment |
| 02 OME (13) | Through-Life Capability Management (Reserved) |
| 02 OME (14) | Gun Barrel Proof |

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| 02 OME (15) | Military Laser Safety Certification |
| 02 OME (16) | Management of Safety Information |
| 02 OME (17) | Safety Performance Reporting |
| 02 OME (18) | OME Safety Review Panel and Assurance Statement |
| 02 OME (19) | OME Certification (Reserved) |
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| Regulation 02 OME (1) | OME Design Requirements <p>MOD OME systems shall be designed and assessed to recognised international standards.</p> |
| Rationale 02 OME (1) | <p>Initial safety requirements shall be developed to sound design practice or standards such as Def Stan 07-085 Design Requirements for Weapons and Associated Systems, with particular emphasis on specifying those safety requirements arising from safety legislation, regulations, standards and the MOD policy.</p> <p>Where production of the Safety and Environmental Case is contracted out, recognition of contractual requirements shall also be given, in accordance with Def Stan 00-056 Safety Management Requirements for Defence Systems and JSP 418 Management of Environmental Protection in Defence.</p> <p>For areas of design that are not regulated, appropriate Subject Matter Experts shall be consulted for advice on best-practice and the availability of standards and procedures appropriate to the requirements selected. Adoption of alternative standards to those usually selected shall be justified within the Safety and Environmental Case.</p> |
| Acceptable Means of Compliance (AMC) 02 OME (1) | <p>The DE&S SSR should provide evidence of compliance with the requirements of Def Stan 07-085 Design Requirements for Weapons and Associated Systems which specifies the Design requirements for Weapons and associated systems for use in procurement and the principal requirements of the design process supporting design certification.</p> <p>Where OME is procured for UK service application that has been previously qualified by another National Authority, it is entirely acceptable for the foreign evidence to be submitted to meet the intent of the MOD Regulation, particularly where the testing has been conducted to NATO STANAG requirements that both the UK and the US have agreed and endorsed.</p> <p>Each DE&S SSR should identify and record safety requirements, in consultation with their Capability Sponsor (CS). Safety assessments should be initiated at the earliest possible stages of the acquisition cycle, addressing the different issues that arise as the Project matures, or requirements alter, throughout the acquisition cycle.</p> |
| Guidance Material 02 OME (1) | <p>Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 1 (JSP 520) - Defence Code of Practice (DCOP) and Guidance Notes for OME Acquisition:</p> <ul style="list-style-type: none"> • Chap 7. • Chap 10. • Chap 11. |

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| Regulation 02 OME (2) | Appointment of an Independent OME Safety Advisor The DE&S SSR shall engage the services of an independent OME Safety Adviser to provide Independent Technical Evaluation (ITE) support throughout the CADMID/T life-cycle and to provide SME advice that conforms to relevant UK OME safety legislation, regulation and policy. |
| Rationale 02 OME (2) | ITE support for OME Systems is required to assess critical safety information and evidence to provide assurance that the technical information is correct, is suitable to achieve objectives, is valid and is fit for purpose. |
| Acceptable Means of Compliance (AMC) 02 OME (2) | The DE&S SSR should provide evidence that they have engaged the services of the Defence Ordnance Safety Group's (DOSG) Weapon Systems (WS) Safety Advisers in the first instance. Failing that, support and advice may be obtained from any demonstrably competent body with relevant OME Subject Matter Expert (SME) resources. |
| Guidance Material 02 OME (2) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 1 (JSP 520) - Defence Code of Practice (DCOP) and Guidance Notes for OME Acquisition: <ul style="list-style-type: none"> • Chap 1. • Chap 4, Sect 3, Para 12. |

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| Regulation 02 OME (3) | Safety and Environmental Case <p>The DE&S SSR shall ensure that OME Safety and Environmental Case Reports (SECR) are produced periodically and at Key Project milestones in the MOD acquisition cycle from Initial Gate onwards.</p> |
| Rationale 02 OME (3) | <p>The periodicity of producing regular SECRs arising from Safety and Environmental Case reviews, for the in-service phase (as distinct from introduction into service), should be proportional to the risks associated with the system and should align with the business approvals process. The periodicity of producing SECRs shall be recorded within the SEMP. SECRs provide a status report on the OME safety and environmental activities undertaken to that point and are the functional output from the body of evidence contained in the Safety and Environmental Case. It shall demonstrate OME system performance against the OME Safety and Environmental requirements specified for that system and those specified by this policy.</p> |
| Acceptable Means of Compliance (AMC) 02 OME (3) | <p>The DE&S SSR should be able to provide evidence of a comprehensive and up-to date Safety and Environmental Case which covers the entire Manufacture to Target or Disposal Sequence (MTDS) (See Regulation 02 OME (4) below) for the OME concerned.</p> |
| Guidance Material 02 OME (3) | <p>Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 1 (JSP 520) - Defence Code of Practice (DCOP) and Guidance Notes for OME Acquisition:</p> <ul style="list-style-type: none"> • Chap 1, Sect 7, Para 38. • Chap 9, Annex B. • Chap 10. |

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| Regulation 02 OME (4) | Manufacture to Target or Disposal Sequence (MTDS) <p>The DE&S SSR shall establish a safety management approach that identifies and addresses specific safety issues at each stage of the MTDS.</p> |
| Rationale 02 OME (4) | <p>The assessment of inherent OME safety risks presented to MOD personnel, third parties, materiel and the environment applies across the whole Acquisition Cycle and at any stage in a MTDS. This requires the PT to establish a safety management approach that addresses specific safety issues particular to each stage of the MTDS. The Safety Assessment should also consider the integration of all elements necessary to deliver the defence capability, taking account of associated equipment and platforms, personnel training, maintenance facilities, tactics and procedures.</p> <p>The DE&S SSR retains responsibility for ensuring performance against the safety requirements is maintained and where practicable is improved within agreed boundaries. This should include identifying the Duty Holders and seeking necessary assurance of continuing satisfactory arrangements across the MTDS as well as suitable and sufficient procedures for the modification, upgrade, concessions / production permits and rectification of faults and defects.</p> |
| Acceptable Means of Compliance (AMC) 02 OME (4) | <p>The DE&S SSR should provide evidence that they have considered the following when assessing the safety of OME, and the associated standards that apply to each stage including:</p> <ul style="list-style-type: none"> • Requirements Capture / System Design. • Manufacture. • Storage, Handling and Transport. • Trials. • In-Service Use (including Armed Conflict and Peacetime). • In-Service Surveillance. • Maintenance. • Post Launch / Fire Hazards and Dynamic Safety. • OME Operating Environment Issues. • Disposal. • Onward Sales. |
| Guidance Material 02 OME (4) | <p>Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 1 (JSP 520) - Defence Code of Practice (DCOP) and Guidance Notes for OME Acquisition:</p> <ul style="list-style-type: none"> • Chap 1, Sect 7, Para 7. • Chap 9. |

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| Regulation 02 OME (5) | Safety Risk Management The OME Safety Risk shall be assessed and managed safely throughout the life of the OME. |
| Rationale 02 OME (5) | The aim is to have a seamless flow of safety information between Safety and Environmental Cases at successive levels, be it equipment, system or platform. The Safety and Environmental Case shall define the system, its boundaries and its operating environment, with all interfaces clearly identified and effectively managed. To ensure all interfaces are clearly identified and effectively managed, interfaces shall be clearly established, and the requirements of the different safety policy documents understood. |
| Acceptable Means of Compliance (AMC) 02 OME (5) | The DE&S SSR should be able to provide clear evidence of a live, working document that is developed and reviewed through the life cycle of the OME that provides a structured argument, supported by a body of evidence providing a compelling, comprehensible and valid case that a system is safe for a given application in a given operating environment. |
| Guidance Material 02 OME (5) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 1 (JSP 520) - Defence Code of Practice (DCOP) and Guidance Notes for OME Acquisition: <ul style="list-style-type: none"> • Chap 8. |

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| Regulation 02 OME (6) | Classification for Transportation and Storage All military munitions and explosives shall be assigned a hazard classification by DOSR before they can be transported by road within Great Britain or stored within MOD establishments. |
| Rationale 02 OME (6) | All explosives must ⁴ have been assigned a classification by the Competent Authority of a Contracting Party to the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) before they are consigned for carriage by road in Great Britain. An explosive assigned to Class 1 is given an appropriate UN Serial Number, hazard division and compatibility group, depending on its composition, type, and hazard. The Competent Authority in relation to military explosives is the Secretary of State (SofS) for Defence. This Delegation is within The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009. DOSR carries this function out on behalf of the SofS. |
| Acceptable Means of Compliance (AMC) 02 OME (6) | An application should be submitted by the PT to DOSR for consideration. When satisfied with the submission, DOSR will issue a Competent Authority Document (CAD) MOD Form 1657. The details of the validity of the CAD will be recorded on the DOME Database which can be accessed by the user community. |
| Guidance Material 02 OME (6) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 2 (JSP 482) - Defence Code of Practice (DCOP) and Guidance Notes for In-Service and Operational Safety Management of OME: <ul style="list-style-type: none"> • Chap 4. |

⁴ This is a Statutory Requirement.

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| Regulation 02 OME (7) | Explosive Material (EM) Safety Qualification All EM within an OME system shall be qualified to internationally recognised standards. |
| Rationale 02 OME (7) | To provide safety and functional characteristics of the EM used in the OME. These values allow comparison with in service systems, as well as provide initial data, to be compared with values obtained in production and/or in-service surveillance (ISS). |
| Acceptable Means of Compliance (AMC) 02 OME (7) | <p>EM should be qualified in accordance with NATO STANAG 4170-Principles and Methodology for the Qualification of Explosive Materials for Military Use to determine whether they are safe and suitable for consideration for use in a particular role.</p> <p>It should be noted that additional national requirements over and above those specified in the STANAG may be required. This additional data will be required to establish that safety or life-limiting failure modes, often associated with mechanical properties and ageing, which may make the explosive material unsuitable for UK service, are identified and quantified.</p> <p>The assessment, promulgated as a technical report, includes the characterization of the explosive in terms of its physical and chemical properties, its sensitiveness to thermal, electrical and mechanical stimuli, and its explosiveness. The tests required for production of an Explosives Hazard Data Sheet (EHDS) in accordance with Def-Con 68 will normally be included, together with any small-scale or large-scale tests appropriate to the intended role.</p> <p>A formal qualification certificate accompanied by a Divisional Note giving further information, should be issued by the UK National Authority, currently DES WpnsDOSG-ST1. This 'National Authority' status is written into the STANAG 4170 agreed by UK MOD and endorsed by DOSR.</p> |
| Guidance Material 02 OME (7) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 1 (JSP 520) - Defence Code of Practice (DCOP) and Guidance Notes for OME Acquisition: <ul style="list-style-type: none"> • Chap 10. |

| Regulation 02 OME (8) | |
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| Regulation 02 OME (8) | <p>Initiation Systems Safety Qualification</p> <p>Initiation systems within OME shall be qualified to internationally recognised safety standards.</p> |
| Rationale 02 OME (8) | To provide suitable and sufficient evidence of an acceptable risk level against inadvertent initiation of the payload or of the propulsion components of the OME. |
| Acceptable Means of Compliance (AMC) 02 OME (8) | The PT should provide a description of the overall architecture and of the design details and compliance matrix with STANAG 4187 and STANAG 4368. Test results of the safety assessment should be in accordance with STANAG 4157. |
| Guidance Material 02 OME (8) | <p>Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 1 (JSP 520) - Defence Code of Practice (DCOP) and Guidance Notes for OME Acquisition:</p> <ul style="list-style-type: none"> • Chap 10. • STANAG 4187. • STANAG 4368. • STANAG 4157. |

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| Regulation 02 OME (9) | Other Components Safety Qualification All other (non-energetic) systems within OME shall be qualified to internationally recognised safety standards. |
| Rationale 02 OME (9) | To provide an acceptable risk level against inadvertent initiation of the payload or of the propulsion components of the ammunition. |
| Acceptable Means of Compliance (AMC) 02 OME (9) | The PT should provide evidence of performed test types and tests results or analysis reports using STANAG 4452 / AOP-52 or IEC standards (software safety), etc. |
| Guidance Material 02 OME (9) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 1 (JSP 520) - Defence Code of Practice (DCOP) and Guidance Notes for OME Acquisition: <ul style="list-style-type: none"> • Chap 10. • STANAG 4452. • AOP-52. • IEC standards (software safety). |

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| Regulation 02 OME (10) | Environmental Testing (Climatic and Mechanical) Environmental Testing of Climatic and Mechanical effects on OME shall be qualified using internationally recognised safety standards. |
| Rationale 02 OME (10) | To provide evidence that the munition will remain safe and function as intended through its operational life, including severe environments (temperature, humidity, shocks and vibrations, etc.). |
| Acceptable Means of Compliance (AMC) 02 OME (10) | The PT should provide evidence of performed test types and tests results or analysis reports using STANAG 4370 - Environmental Testing and AECTPs listed under the STANAG. Most of the ammunition families have dedicated S3 assessment STANAGs (to be replaced by the AAS3P documents). Such STANAGs provide standard test plans, including tests sequence/test description, and dedicated item numbers. |
| Guidance Material 02 OME (10) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 1 (JSP 520) - Defence Code of Practice (DCOP) and Guidance Notes for OME Acquisition: <ul style="list-style-type: none"> • Chap 9. • STANAG 4370. |

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| Regulation 02 OME (11) | Electromagnetic Environmental Effects (E3) Electromagnetic Environmental Effects shall be qualified to internationally recognised safety standards. |
| Rationale 02 OME (11) | To provide evidence that the munition will remain safe and function as intended through its operational life, including severe environments (temperature, humidity, shocks and vibrations, etc.). |
| Acceptable Means of Compliance (AMC) 02 OME (11) | <p>The PT should provide evidence of safety to performed test types and tests results or analysis reports using STANAG 4370 - Environmental Testing and AECTPs listed under the STANAG.</p> <p>Most of the ammunition families have dedicated S3 assessment STANAGs (to be replaced by the AAS3P documents). Such STANAGs provide standard test plans, including tests sequence/test description, and dedicated item numbers.</p> |
| Guidance Material 02 OME (11) | <p>Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 1 (JSP 520) - Defence Code of Practice (DCOP) and Guidance Notes for OME Acquisition:</p> <ul style="list-style-type: none"> • Chap 9. • STANAG 4370. |

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| Regulation 02 OME (12) | Insensitive Munition (IM) Assessment <p>All new munitions requirements shall comply with MOD IM policy and all in-service munitions shall be kept under review to identify opportunities to achieve IM Policy compliance and thereby reduce risk.</p> |
| Rationale 02 OME (12) | <p>It is the MOD's policy to reduce equipment safety risks to levels that are either Broadly Acceptable or Tolerable and ALARP. Insensitive Munitions (IM) contribute to the ALARP principle through fulfilling their performance, readiness and operational requirements on demand, whilst minimising the probability of inadvertent initiation and severity of subsequent collateral damage to weapon platforms, logistic systems and personnel when subject to unplanned stimuli.</p> |
| Acceptable Means of Compliance (AMC) 02 OME (12) | <p>The DE&S SSR should provide evidence that the munition will remain safe and function as intended through its operational life, including severe environments (temperature, humidity, shocks and vibrations, etc.).</p> <p>NATO nations have agreed a policy for introduction, assessment and testing for IM. These are prescribed in NATO Standardization Agreement STANAG 4439 - Policy for Introduction and Assessment of Insensitive Munitions (IM) which the UK has ratified.</p> <p>To achieve this any User Requirement for the procurement of OME by the MOD should include a Key User Requirement to meet the UK MOD IM Policy in the guidance material below.</p> |
| Guidance Material 02 OME (12) | <p>Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 1 (JSP 520) - Defence Code of Practice (DCOP) and Guidance Notes for OME Acquisition:</p> <ul style="list-style-type: none"> • Chap 11. |

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| Regulation 02 OME (13) | Through-Life Capability Management (Reserved) |
| Rationale 02 OME (13) | |
| Acceptable Means of Compliance (AMC) 02 OME (13) | |
| Guidance Material 02 OME (13) | |

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| Regulation 02 OME (14) | Gun Barrel Proof Any gun barrel made for the use of Her Majesty's forces shall be proved to recognised standards. |
| Rationale 02 OME (14) | <p>The proving of firearms is governed by the Gun Barrel Proof Acts of 1868, 1950 and 1978 (However, note that much of the 1950 Act was repealed in 1996 by SI 1996/1576).</p> <p>Her Majesty's Forces are dis-applied from the requirement for any barrel to be proved by an approved proof house under the Gun Barrel Proof Act 1868; hence, this Defence Regulation.</p> <p>Proof is the compulsory testing of every firearm to ensure its safety before it is used. It includes all explosive operated small arms, whether for present use or future invention adapted for the discharge of shot, bullet or other projectile. It includes pistols, revolvers, shotguns, rifles, cattle killers, line throwers, signal pistols, alarm guns and nail driving and other industrial tools. Reproof is the similar testing of a firearm that may have fallen below standard because of alteration.</p> |
| Acceptable Means of Compliance (AMC) 02 OME (14) | The PT should to provide evidence of Compliance with Defence Standard 05-101 Part 1 – Proof of Ordnance, Munitions, Armour and Explosives and NATO Manuals of Proof and Inspection Procedures (MOPI). |
| Guidance Material 02 OME (14) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 1 (JSP 520) - Defence Code of Practice (DCOP) and Guidance Notes for OME Acquisition: <ul style="list-style-type: none"> • Chap 7. • Defence Standard 05-101, Part 1. |

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| Regulation 02 OME (15) | Military Laser Safety Certification <p>All military laser systems shall be certified to state clearly any constraints placed on the firing of the laser, highlight the known hazards arising from use of the laser system and define the system's Laser Hazard Zone (LHZ).</p> |
| Rationale 02 OME (15) | <p>The MOD has a duty of care to ensure the safety of unprotected persons who may be in the vicinity of the laser firing. Therefore, all laser systems shall have a Military Laser System Safety Assessment Certificate (MLSSAC) before they can be used in training and / or service. The MLSSAC will also be required to meet OME Safety Review Panel (OSRP) approval if the OME system contains a laser.</p> |
| Acceptable Means of Compliance (AMC) 02 OME (15) | <p>Each system should have a Laser Safety Certificate MOD Form 2237 issued by Military Laser Safety Team which will be maintained on the Laser Certificate Database on the DOSR DOME Tool.</p> |
| Guidance Material 02 OME (15) | <p>Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 5 (JSP 390) - Defence Code of Practice (DCOP) and Guidance Notes for Military Lasers.</p> |

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| Regulation 02 OME (16) | Management of Safety Information <p>The OME PT shall put arrangements in place to manage the identification, obtaining, updating, configuration control and review of safety related documents and information.</p> |
| Rationale 02 OME (16) | <p>To ensure that urgent safety related information can be made available to all relevant Duty Holders / Users without delay.</p> |
| Acceptable Means of Compliance (AMC) 02 OME (16) | <p>There should be evidence of the update, configuration control and review of safety documents and information being managed via the safety management system, for example:</p> <ul style="list-style-type: none"> • safety documents, records and data are coherent, complete and up to date; • safety evidence is consistent, compatible and to an equivalent standard and quality across the acquisition cycle; • urgent safety-related information being made visible to all relevant Duty Holders without delay; and • obsolete documentation is retained for future reference. |
| Guidance Material 02 OME (16) | <p>Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 1 (JSP 520) - Defence Code of Practice (DCOP) and Guidance Notes for OME Acquisition:</p> <ul style="list-style-type: none"> • Chap 1. |

| Regulation 02 OME (17) | Safety Performance Reporting Details of all OME related Incidents, including all near misses, shall be reported to the Munitions Incident Database (MID) Cell within Defence Equipment and Support (DE&S) Weapons Engineering. |
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| Rationale 02 OME (17) | <p>The MID Cell is to have sight of every incident 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).</p> <p>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.</p> |
| Acceptable Means of Compliance (AMC) 02 OME (17) | <p>There should be visibility of all OME incidents, with evidence of a robust tri-service reporting, recording and corrective action / measure system, with a centralised database managed by the MID Cell within DE&S Weapons Engineering.</p> <p>The MID Cell is required to advise Director Weapons (D Wpns) and DOSR of any critical OME incidents and any significant OME incident trends.</p> <p>An annual report giving an overview of major OME accidents and incidents, and evidence of developing trends should be produced at the end of each calendar year and forwarded to D Wpns and DOSR.</p> |
| Guidance Material 02 OME (17) | <p>Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 2 (JSP 482) - Defence Code of Practice (DCOP) and Guidance Notes for In-Service and Operational Safety Management of OME:</p> <ul style="list-style-type: none"> • Chap 25. |

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| Regulation 02 OME (18) | OME Safety Review Panel and Assurance Statement Assurance of inherent OME safety shall be through the independent peer review of documentary evidence undertaken by an OME Safety Review Panel (OSRP). |
| Rationale 02 OME (18) | The aim of the OSRP is to independently undertake a proportionate review of the evidence underpinning the arguments contained in the OME Safety Submission and if deemed accepted they will: <ul style="list-style-type: none"> • endorse the OME Review Level stated; • provide assurance that the arguments contained within the OME Safety Submission meet the mandatory safety requirements, subject to any Caveats, Provisos and Limitations issued by the Panel; and • issue an OSRP Assurance Statement (OAS) to the DE&S SSR supporting the arguments presented within the OME Safety Submission, as part of the assurance process. |
| Acceptable Means of Compliance (AMC) 02 OME (18) | DE&S WOC Head of Engineering (WOC Hd Eng) should maintain a robust Independent Review Body (IRB) for inherent OME safety as a component of the MOD's assurance regime. The OME PT should present OME Safety Submissions for OSRP review at key project milestones. Periodicity of OME Safety Submissions should be proportional to the risks associated with the system and should align with the business approvals process. Typically, an OME Safety Submission will be presented to the OSRP for assurance at the following project milestones in the acquisition cycle: <ul style="list-style-type: none"> • Initial Gate. • Main Gate. • Entry to Service. • In-Service changes. • Withdrawal from Service. The outcome of a successful review will be endorsement of the OME Safety Submission, by the OSRP, in the form of an OSRP Assurance Statement, which is signed by the OSRP Chair on behalf of WOC Hd Eng. The Panel may decide that Caveats / Provisos / Limitations are appropriate, in which case the Chair will ensure that they are clearly identified as part of the OSRP Assurance Statement. |
| Guidance Material 02 OME (18) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 1 (JSP 520) - Defence Code of Practice (DCOP) and Guidance Notes for OME Acquisition: <ul style="list-style-type: none"> • Chap 13. |

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| Regulation 02 OME (19) | OME Certification (Reserve) |
| Rationale 02 OME (19) | |
| Acceptable Means of Compliance (AMC) 02 OME (19) | |
| Guidance Material 02 OME (19) | |

Part 2

Defence Regulations for In-Service and Operational Safety Management of OME

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| Justification | <p>1. This section provides the regulatory framework for the in-service and operational management of OME during planning, training exercises and operations. It covers in-service logistics storage, processing, transportation and handling, operational safety management and logistic disposal of ammunition across the life-cycle safety management of OME.</p> <p>2. Regulatory Governance is maintained through the Defence OME Safety Committee (DOMESC) which reports to the DOSR Stakeholder Committee (DOSR SC).</p> |
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| Number | Title |
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| 02 OME (20) | Appointment of TLB Inspectors of Explosives |
| 02 OME (21) | MOD Explosives Licensing Authorities |
| 02 OME (22) | Licensing of MOD Explosives Facilities |
| 02 OME (23) | Explosives Licensing in MOD Ports and Harbour Areas |
| 02 OME (24) | Deployment of MOD Explosives Overseas |
| 02 OME (25) | Separation Distances |
| 02 OME (26) | Safeguarding of MOD Explosives Capability |
| 02 OME (27) | Security Controls |
| 02 OME (28) | Record Keeping (Reserved) |
| 02 OME (29) | Free From Explosives Certification |
| 02 OME (30) | Discarding and Disposal of Explosives |

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| Regulation 02 OME (20) | Appointment of TLB Inspectors of Explosives Each TLB/Defence Agency (DA) that has a requirement to undertake explosives activities shall appoint an Inspector of Explosives (IE) to permission the activity. |
| Rationale 02 OME (20) | Each TLB/DA has a responsibility to assess and manage the risks arising from their explosives activities and to ensure that adequate resources are provided to implement the controls required to safely manage the explosives activity. IEs will issue MOD explosives licences under the authority of these Regulations on behalf of the DOSR/Chief Inspector of Explosives (MOD) (CIE (MOD)) including having direct right of access to DOSR/CIE (MOD) to resolve issues of appeal or challenge. IEs will also provide essential second-party level oversight and assurance to their TLB Heads. |
| Acceptable Means of Compliance (AMC) 02 OME (20) | TLBs should either recruit a competent crown servant to be the IE whose individual Terms of Reference will detail the responsibilities with regards to issuing explosives licences and 2PA reporting requirements, or; agree for the provision of explosives licensing support from another TLB/DA which has appointed a competent person as their IE. Such agreement is to be documented through an agreement between the TLBs/DAs concerned. |
| Guidance Material 02 OME (20) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 2 (JSP 482) - Defence Code of Practice (DCOP) and Guidance Notes for In-Service and Operational Safety Management of OME: <ul style="list-style-type: none"> • Chapter 3. |

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| Regulation 02 OME (21) | MOD Explosives Licensing Authorities All applications for MOD Explosives Licence shall be made to the relevant MOD Explosives Licensing Authority. |
| Rationale 02 OME (21) | Licences for MOD operated explosives facilities are only issued by competent individuals who are employed as Inspector of Explosives (IE) within their TLB and have had their competence endorsed by Letter from DOSR/CIE (MOD). Therefore, for the purposes of this regulation “relevant licensing authority” shall mean either CIE (MOD) or the TLB IE. |
| Acceptable Means of Compliance (AMC) 02 OME (21) | Relevant MOD Explosives Licensing Authorities should be as follows: <ul style="list-style-type: none"> • Compliant Explosives Licences. The relevant TLB IE where the licence conditions are fully compliant with the MOD OME DCOP and prescribed separation distances. • Compliant Explosives Licences with other Safety Measures. The TLB IE where the licence conditions are fully compliant with the MOD OME DCOP and is a combination of prescribed separation distances and other safety measures (e.g. technical assessments of non-compliant infrastructure or electrical requirements etc). • MOD Ports and Harbour Areas. The TLB IE, in consultation with the Regulator/CIE(MOD), for any harbour area licence where the conditions are fully compliant with MOD OME DCOP using the ¾ reduced separation distance methodology, supported by a Consequence Analysis. This will include any requirement for Small Quantity Top-Ups (SQTU) Licensing. • Waivers. When the need for a Waiver is identified, the IE should contact DOSR/CIE(MOD) to initiate the procedure in NATO Standard ALP-16 Explosives Safety and Munitions Risk Management (ESMRM) In NATO Planning, Training and Operations. |
| Guidance Material 02 OME (21) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 2 (JSP 482) - Defence Code of Practice (DCOP) and Guidance Notes for In-Service and Operational Safety Management of OME: <ul style="list-style-type: none"> • Chap 9. |

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| Regulation 02 OME (22) | Licensing of MOD Explosives Facilities No person shall allow any explosives to be stored, processed or handled within any MOD establishment unless the appropriate MOD Licensing Authority has issued a licence permitting such activity and there is full compliance with any mandatory operating conditions of that licence. |
| Rationale 02 OME (22) | To provide assurance that MOD explosives facilities are fit for purpose to permit storage, handling or processing of explosives and that they meet all of the necessary safety requirements and mandatory separation distances to exposed sites. |
| Acceptable Means of Compliance (AMC) 02 OME (22) | There should be evidence of a MOD Explosives Licence issued by the appropriate IE which permits the activity or Duty Holder acceptance of risk. |
| Guidance Material 02 OME (22) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 2 (JSP 482) - Defence Code of Practice (DCOP) and Guidance Notes for In-Service and Operational Safety Management of OME: <ul style="list-style-type: none"> • Chap 9. • Chap 10. • Chap 11. |

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| <p>Regulation 02 OME (23)</p> | <p>Explosives Licensing in MOD Ports and Harbour Areas</p> <p>No person shall allow any explosives to be carried or handled within any of Her Majesty’s Naval Bases (HMNB) or other MOD harbour areas, or load or unload any explosives, unless the appropriate MOD Licensing Authority has issued a licence permitting such activity and there is full compliance with any mandatory operating conditions of that licence.</p> |
| <p>Rationale 02 OME (23)</p> | <p>This is a legal requirement of the Dangerous Goods in Harbour Areas Regulations 2016 (DGHAR 2016). Part 5, Explosives. A licence is also required to load or unload explosives from the coast of Great Britain or in territorial waters. HSE normally issues explosives licences for civil operated ports but for harbour areas regulated by ONR, ONR licenses the harbour area. Under the dis-application below, MOD Inspectors of Explosives (IE), authorised by DOSR, issue the explosives licence for HMNBs and MOD harbour areas (e.g. DM Jetties).</p> <p>MOD Dis-application. Under Regulation 14, Application, para (2) (e) it states that Regulations 15 to 19 of DGHAR 2016 do not apply to explosives under the control of the Secretary of State for Defence, or a visiting force or headquarters, complying with a scheme approved by that Secretary of State which provides for safe storage, carriage and handling; and prescribes separation distances or separation distances in combination with other safety measures as necessary. This Defence Regulation therefore is the basis of the MOD Scheme.</p> <p>Foreign Warships. Similarly, Regulations 15 to 19 of DGHAR 2016 do not apply to “Foreign Warships”. Therefore, it is also incumbent upon the MOD to have suitable and sufficient arrangements in place to assess and manage the potential risks presented by any visiting Foreign Warships to protect against risk to life of UK personnel. Those arrangements are included in the MOD Scheme through the AMC below.</p> <p>DEFINITIONS FOR THE PURPOSES OF THIS REGULATION</p> <ul style="list-style-type: none"> • Harbour Area. The definition of “harbour area” is contained within DGHAR 2016, Regulation 2, Interpretation. • Visiting Forces. The legal basis for Visiting Forces in the UK is primarily the Visiting Forces Act of 1952 which incorporates the NATO Status of Forces Agreement of 1951 (SOFA) into UK law. From the UK’s perspective, it applies equally to visiting forces in the UK and to British forces based in NATO countries. More specifically, US munitions in the UK are governed by a UK/US Memorandum of Agreement dated October 1997, entitled "<i>The Import, Export, Transportation, Safety, Security, Storage and</i> |

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| | <p><i>Disposal of US Explosives and Weapons in the UK and the Approval, Use and Safety of Ground Ranges”.</i></p> <ul style="list-style-type: none"> • Warship. The definition of a “Warship” is taken from the United Nations Convention on the Law of the Sea (UNCLOS). For the purposes of this Convention, "warship" means a ship belonging to the armed forces of a State bearing the external marks distinguishing such ships of its nationality, under the command of an officer duly commissioned by the government of the State and whose name appears in the appropriate service list or its equivalent and manned by a crew which is under regular armed forces discipline. |
| <p>Acceptable Means of Compliance (AMC) 02 OME (23)</p> | <p>One of the following should be in place for explosives under the control of the Secretary of State for Defence, or a visiting force or headquarters and, as far as is reasonably practicable, for visiting Foreign Warships:</p> <ul style="list-style-type: none"> • Handling, involving Loading or Unloading. A MOD Explosives Licence issued by the appropriate MOD Licensing Authority. This includes Small Quantity Top Up (SQTU) Licences for restricted NEQ limits or Duty Holder acceptance of risk. • Other Handling Activity. DMR Regulations and DCOPs apply which will define the conditions when handling aboard is permitted to allow for specific maintenance activities and other mandatory checks to be carried out. In all other instances, or if in any doubt, a MOD Explosives Licence may be required, and further advice should be sought from the appropriate IE and/or DMR/DOSR before conducting the activity. • Carrying. DMR process for Warships in Harbour (WiH) certification applies for vessels carrying <50,000kg NEQ in the quiescent (undisturbed) state (excluding the permitted activity above). In all other instances that are not covered by a WiH assessment a MOD Explosives Licence may be required and further advice should be sought from the appropriate IE and/or DMR/DOSR. |
| <p>Guidance Material 02 OME (23)</p> | <p>Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 2 (JSP 482) - Defence Code of Practice (DCOP) and Guidance Notes for In-Service and Operational Safety Management of OME:</p> <ul style="list-style-type: none"> • Chap 10, Sect 4. • Chap 26. |

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| Regulation 02 OME (24) | Deployment of MOD Explosives Overseas <p>Prior to any deployment of MOD explosives to overseas locations, a safety review of the facilities available at the host location shall be carried out to ensure that MOD Explosives Regulations will not be subsequently infringed.</p> |
| Rationale 02 OME (24) | <p>When it is necessary to position explosives at non-MOD locations, including airfields and docks, in the UK, or overseas, the regulations or legislation of the landlord (in UK) or Host Nation (HN) are to be compared with MOD Explosives Regulations and the more stringent of the two are to be observed.</p> |
| Acceptable Means of Compliance (AMC) 02 OME (24) | <p>The safety review is to be carried out by a competent person on behalf of the appropriate TLB IE who is to produce a documented report.</p> <p>There should be evidence of compliance with the applicable parts of these Regulations, involving MOD DH acceptance of risk where necessary.</p> |
| Guidance Material 02 OME (24) | <p>Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 2 (JSP 482) - Defence Code of Practice (DCOP) and Guidance Notes for In-Service and Operational Safety Management of OME:</p> <ul style="list-style-type: none"> • Chap 11. |

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| Regulation 02 OME (25) | Separation Distances All MOD personnel responsible for the management and operation of licensed explosives facilities shall ensure that the relevant separation distances are maintained at all times. |
| Rationale 02 OME (25) | In most cases a separation distance must be maintained between the explosives building and neighbouring inhabited buildings. This is to keep risks to those living or working in the area to an acceptable level. Other separation distances provide protection against simultaneous propagation between adjacent facilities and protection to public traffic routes and vulnerable facilities or locations. |
| Acceptable Means of Compliance (AMC) 02 OME (25) | There should be evidence that the licensee is proactively managing the separation distances stipulated in the explosives licence to ensure they are being maintained at all times. |
| Guidance Material 02 OME (25) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 2 (JSP 482) - Defence Code of Practice (DCOP) and Guidance Notes for In-Service and Operational Safety Management of OME: <ul style="list-style-type: none"> • Chap 10. |

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| Regulation 02 OME (26) | Safeguarding of MOD Explosives Capability <p>The HOEs of MOD Explosives sites shall ensure they submit a safeguarding plan to the Defence Infrastructure Organisation (DIO) and ensure they maintain this plan when any changes or variance to their licences occur.</p> |
| Rationale 02 OME (26) | <p>To ensure that MOD explosives, and other essential defence installations, are not compromised by civil encroachment of private or public development within the prescribed quantity distances, maps limiting such development are lodged by the Defence Infrastructure Organisation (DIO), via the Office of the Deputy Prime Minister (ODPM) and Department of Transport, Local Government and the Regions (DTLR), in England, the Scottish Executive in Scotland, and the Welsh Assembly in Wales, with the Local Planning Authority (LPA). This process is known as Explosives Safeguarding.</p> |
| Acceptable Means of Compliance (AMC) 02 OME (26) | <p>The HOE should be able to provide evidence of proactive safeguarding to maintain the validity of their explosives' licences.</p> |
| Guidance Material 02 OME (26) | <p>Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 2 (JSP 482) - Defence Code of Practice (DCOP) and Guidance Notes for In-Service and Operational Safety Management of OME:</p> <ul style="list-style-type: none"> • Chap 22. |

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| Regulation 02 OME (27) | Security Controls All MOD personnel who manage or control MOD explosives facilities and operations shall ensure they have robust security controls in place before explosive operations start and they should remain in place and be effective for as long as the operations continue. |
| Rationale 02 OME (27) | Military explosives have the potential to be misused and that misuse can cause both harm to people, the damage or destruction of property and infrastructure, and disruption to defence capability and wider daily life. In addition, inadequate controls can result in unauthorised people having access to facilities where military explosives are manufactured, stored, kept or used which can increase the likelihood of a fire or explosion occurring through inappropriate actions or behaviours. |
| Acceptable Means of Compliance (AMC) 02 OME (27) | There should be clear evidence of compliance with JSP 440 - Defence Manual of Security. |
| Guidance Material 02 OME (27) | Further guidance on how to meet the above AMC requirement is available in JSP 440 - Defence Manual of Security. |

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| Regulation 02 OME (28) | Record Keeping (Reserved) |
| Rationale 02 OME (28) | |
| Acceptable Means of Compliance (AMC) 02 OME (28) | |
| Guidance Material 02 OME (28) | |

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| Regulation 02 OME (29) | Free From Explosives Certification All used packages and containers for transportation and storage of explosives are to be inspected and a thorough examination carried out to ensure that they are free from explosives. |
| Rationale 02 OME (29) | The Certification Free From Explosives (CFFE) regime is applicable to all packages which have contained explosives, arisings from the firing or proofing of ammunition, munitions kept in museums or as souvenirs and displays etc, and for training aids, all arisings from breakdown and disposal of ammunition and explosives and platforms and any other equipment expected to use or hold munitions. It is also applicable to equipment used to process explosives and subsequently in need of maintenance or repair. CFFE is required when such items are to be transported as non-explosives or sent to recipients for re-cycling who, because of a complete lack of knowledge of explosives, would be at risk if explosives were to be inadvertently left in a nominally empty article or package. Those at particular risk are people outside of the MOD and those who receive items for scrap. The same regime should also be used to ensure the absence of other hazardous substances e.g. White and Red Phosphorus and CS which may be associated with the Munitions. |
| Acceptable Means of Compliance (AMC) 02 OME (29) | Once it can be stated with certainty that the package is free from explosives a CFFE certificate should on all occasions be issued by a competent individual. |
| Guidance Material 02 OME (29) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 2 (JSP 482) - Defence Code of Practice (DCOP) and Guidance Notes for In-Service and Operational Safety Management of OME: <ul style="list-style-type: none"> • Chap 27. |

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| Regulation 02 OME (30) | Discarding and Disposal of Explosives All explosives, and explosive contaminated items, shall be discarded and disposed of safely. |
| Rationale 02 OME (30) | One of the main causes of accidents in the explosives industry is the disposal of explosives waste. Disposal of explosives includes their destruction, or rendering them permanently explosively inert, or their safe and legal transfer to another competent person. The risks associated with disposal of explosives waste means that incidents often lead to injuries or fatalities. Accidents can be avoided by ensuring there is a better appreciation of the properties and behaviour of explosives under certain conditions. For example, explosives earmarked for destruction may be unusually unstable due to deterioration. Anyone disposing of explosives should also be aware that they have duties to do so in a way that is not harmful to the environment. |
| Acceptable Means of Compliance (AMC) 02 OME (30) | There should be clear evidence that the activity is being managed and carried out by competent individuals who should draw-up suitable and sufficient risk assessments, properly considered systems of work and ensure appropriate safety precautions are put in place. |
| Guidance Material 02 OME (30) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 2 (JSP 482) - Defence Code of Practice (DCOP) and Guidance Notes for In-Service and Operational Safety Management of OME: <ul style="list-style-type: none"> • Chap 10, Sect 9. |

Part 3

Defence Regulations for Ranges

Justification

1. The Ministry of Defence owns, uses or is otherwise responsible for a considerable number of MOD based firing ranges throughout the UK and abroad. Whether these are used by military or by civilian personnel, safety is of paramount importance. There is always potential for a serious accident to range users, to those who operate or maintain ranges and to the public, if firing activities are not properly regulated and controlled.
2. These Regulations and associated guidance consider all aspects of the provisions, use, maintenance and inspection of MOD Ranges for which there is no appropriate statute or equivalent civil practice with which to compare.
3. The 4 elements covered are Safe People, a Safe Place, Safe Equipment and Safe Practice.
4. Regulatory Governance is maintained through the Defence Ranges Safety Committee (DRSC) which reports to the DOSR Stakeholder Committee (DOSR SC).

| Number | Title |
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| 02 RANGES (1) | Design and Construction of MOD Ranges |
| 02 RANGES (2) | Foreign Designed Ranges |
| 02 RANGES (3) | Authorisation to Operate a MOD Range |
| 02 RANGES (4) | Range Safety Certificate |
| 02 RANGES (5) | Range Standing Orders |
| 02 RANGES (6) | Control of Access |
| 02 RANGES (7) | Safety of Untrained Personnel |
| 02 RANGES (8) | Safe Handling of Weapons |
| 02 RANGES (9) | Medical Cover |
| 02 RANGES (10) | Incident, Near Miss and Accident Reporting |
| 02 RANGES (11) | Military Laser System Safety Assessment |

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| 02 RANGES (12) | Non-Service Pattern Light Weapons |
| 02 RANGES (13) | Approved Targets |
| 02 RANGES (14) | Dry Training Areas (Reserved) |
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| Regulation 02 RANGES (1) | Design and Construction of MOD Ranges All MOD Ranges shall be designed, constructed and maintained according to MOD Standards and supported by a valid MOD Form 1057 – Record of Range Proceedings Certificate. |
| Rationale 02 RANGES (1) | MOD Standards ensure that MOD Ranges are designed, constructed and maintained safely. This Regulation forms an essential component of the Safe Place element of the MOD Safety and Environmental Management System for Ranges. MOD Standards can also be applied to provide assurance that foreign designed ranges are suitable and help identify areas of non-compliance. |
| Acceptable Means of Compliance (AMC) 02 RANGES (1) | Evidence of compliance with MOD Standards should be documented on a Record of Range Proceedings Certificate (MOD Form 1057). |
| Guidance Material 02 RANGES (1) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 3 (JSP 403) - Defence Code of Practice (DCOP) and Guidance Notes for Ranges: <ul style="list-style-type: none"> • Vol 1, Part 2, Chap 7, Para 119. • Vol 2. |

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| Regulation 02 RANGES (2) | Foreign Designed Ranges All foreign designed ranges, whether in the UK or overseas, which are controlled or used by MOD personnel, shall be correctly authorised for use. |
| Rationale 02 RANGES (2) | Before conducting activity on a Range which has not been built to MOD standards there should be confirmation that the range is at least as safe as an equivalent MOD designed range. |
| Acceptable Means of Compliance (AMC) 02 RANGES (2) | There should be clear documentary evidence that the Range has been assessed against MOD standards to ensure it is safe and authorised for use. |
| Guidance Material 02 RANGES (2) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 3 (JSP 403) - Defence Code of Practice (DCOP) and Guidance Notes for Ranges: <ul style="list-style-type: none"> • Vol 1, Part 1. |

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| Regulation 02 RANGES (3) | Authorisation to Operate a MOD Range <p>The authorised person who operates a MOD Range shall ensure that a valid MOD Form 904 – Range Authorisation Certificate has been issued by the Regulator prior to the use of the range.</p> |
| Rationale 02 RANGES (3) | <p>Range Certification provides confirmation of Independent 3rd Party Regulatory Assurance to the SofS and testifies the extent to which the requirements of the MOD Regulations have been complied with. Any deviation from meeting the specific regulatory safety requirements could have significant safety implications.</p> |
| Acceptable Means of Compliance (AMC) 02 RANGES (3) | <p>A valid MOD Form 904 – Authorisation for Use Certificate for bringing a MOD range into use on a permanent basis issued by DSA DOSR.</p> |
| Guidance Material 02 RANGES (3) | <p>Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 3 (JSP 403) - Defence Code of Practice (DCOP) and Guidance Notes for Ranges:</p> <ul style="list-style-type: none"> • Vol 1, Part 1, Chap 61. • Vol 1, Part 2, Chap 35. |

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| Regulation 02 RANGES (4) | Range Safety Certificate Any person who operates a MOD Range shall ensure that a valid MOD Form 905 – Range Safety Certificate has been issued by the RAU prior to the use of the range. |
| Rationale 02 RANGES (4) | Range Safety Certification details the equipment and calibre of weapons that are permitted to be used on the range. |
| Acceptable Means of Compliance (AMC) 02 RANGES (4) | Evidence of a valid MOD Form 905 – Range Safety Certificate. |
| Guidance Material 02 RANGES (4) | Further guidance on how to meet the above AMC requirement is available in DSA03-OME Part 3 (JSP 403) - Defence Code of Practice (DCOP) and Guidance Notes for Ranges: <ul style="list-style-type: none"> • Vol 1, Part 2, Chap 5. • Vol 1, Part 2, Chap 5, Annex B. |

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| Regulation 02 RANGES (5) | Range Standing Orders Each MOD Range Operator shall produce clear Range Standing Orders which cover the use and operation of each MOD Range. |
| Rationale 02 RANGES (5) | Range Standing Orders are a set of orders derived from a Site-Specific Risk Assessment which specify the control measures and procedures for the safe operation and use of the Range and shall be read by users before planning any OME activity. |
| Acceptable Means of Compliance (AMC) 02 RANGES (5) | Evidence of a set of orders specific to each Range. |
| Guidance Material 02 RANGES (5) | Further guidance on how to meet the above AMC requirement is available in DSA03-OME Part 3 (JSP 403) - Defence Code of Practice (DCOP) and Guidance Notes for Ranges: <ul style="list-style-type: none"> • Vol 1, Part 1, Chap 53. |

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| Regulation 02 RANGES (6) | Control of Access All measures necessary shall be applied to control access to MOD Ranges. |
| Rationale 02 RANGES (6) | The purpose of controlling access to MOD Ranges is to reduce the potential risk of injury or death from the hazards associated with OME activities. |
| Acceptable Means of Compliance (AMC) 02 RANGES (6) | Evidence that the public are protected from hazards by all means which are reasonably practicable including: <ul style="list-style-type: none"> • identification of the areas where the hazards exist; • warning the public that the hazards exist; • ensuring that the Range Danger Area (RDA) remains clear of the public; • ensuring that the RDA remains clear of intruders or making provisions for the timely cessation of the hazardous activity before the activity poses a risk to an intruder; • permitting the practice to take place; • at the end of a practice ensuring as far as reasonably practicable that the RDA or appropriate part of the RDA is no longer hazardous; and • permitting limited or general public access. |
| Guidance Material 02 RANGES (6) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 3 (JSP 403) - Defence Code of Practice (DCOP) and Guidance Notes for Ranges: <ul style="list-style-type: none"> • Vol 1, Part 1, Para 52. |

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| Regulation 02 RANGES (7) | Safety of Untrained Personnel Untrained personnel using MOD Ranges shall be appropriately supervised and authorised prior to the use of Service Weapons and Service ammunition on MOD property. |
| Rationale 02 RANGES (7) | <p>The appropriate authorisation ensures that those responsible for the control and management of MOD Ranges safeguard, as far as reasonably practicable, untrained MOD or non-MOD personnel who are authorised to enter MOD Ranges.</p> <p>The Armed Forces Act 1996 states that a person under the supervision of a member of the Armed Forces may, without holding a certificate or obtaining the authority of the Secretary of State under Section 5 of the Firearms Act 1968 have in their possession a firearm and ammunition on service premises.</p> |
| Acceptable Means of Compliance (AMC) 02 RANGES (7) | Evidence that untrained personnel are under the supervision of a member of the armed forces who is on duty and competent to provide such supervision and that the specific activity is authorised. |
| Guidance Material 02 RANGES (7) | Further guidance on how to meet the above AMC requirement is available in Dismounted Close Combat, Pamphlet 21, Training Regulations for Armoured Fighting Vehicles, Infantry Weapon Systems and Pyrotechnics. |

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| Regulation 02 RANGES (8) | Safe Handling of Weapons All personnel handling weapons on MOD Ranges shall be formally trained and tested within the qualifying period in accordance with Service Manuals. |
| Rationale 02 RANGES (8) | All personnel should have the experience and competency to handle, operate and fire weapons in a safe manner on MOD Ranges. |
| Acceptable Means of Compliance (AMC) 02 RANGES (8) | There should be evidence that all personnel meet the mandatory criteria for the use of AFV, Infantry Weapon Systems and Pyrotechnics as follows: <ul style="list-style-type: none"> • formally Trained. Trained by a qualified and competent Skill at Arms (SAA) / Gunnery Instructor, in accordance with the appropriate Service Training Publication; • formally Tested. Passed Weapon Handling Test (WHT), conducted by a SAA instructor who is current with the weapon system, within the qualifying period; • live Firing Tested. Passed the weapon live firing test within the required qualifying period. Results must be recorded; • training Progression. Having followed the progression of training prescribed within the Commanders Guide in Operational Shooting Policy; and • practical Understanding. Having been suitably briefed on the requirements and constraints of the exercise or range practice. |
| Guidance Material 02 RANGES (8) | Further guidance on how to meet the above AMC requirement is available in Dismounted Close Combat, Pamphlet 21, Training Regulations for Armoured Fighting Vehicles, Infantry Weapon Systems and Pyrotechnics. |

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| Regulation 02 RANGES (9) | Medical Cover The appropriate level of medical cover shall be in place according to the scale of OME activity to be conducted on MOD Ranges. |
| Rationale 02 RANGES (9) | It is the responsibility of the Senior Planning Officer to appoint a Planning Officer and a Range or Exercise Conducting Officer (RCO/ECO) and to ensure that they are given guidance of the required medical and emergency plan. |
| Acceptable Means of Compliance (AMC) 02 RANGES (9) | The RCO/ECO should ensure that they comply with the minimum medical requirement table prescribed in Chapter 2 of Pamphlet 21 and provide that: <ul style="list-style-type: none"> • written instructions that confirm that the user unit is fully conversant with the medical emergency procedures and have robust communications; • written instructions that are countersigned by the Senior Planning Officer providing assurance that the Planning Officer has been appropriately supervised; and • for all LFTT activity the RAU conducts a gross error check to ensure a safe place. |
| Guidance Material 02 RANGES (9) | Further guidance on how to meet the above AMC requirement is available in DSA03-OME Part 3 (JSP 403) - Defence Code of Practice (DCOP) and Guidance Notes for Ranges: <ul style="list-style-type: none"> • Vol 1, Part 2, Chap 1, Annex G; and • Dismounted Close Combat, Pamphlet 21, Training Regulations for Armoured Fighting Vehicles, Infantry Weapon Systems and Pyrotechnics. |

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| Regulation 02 RANGES (10) | Incident, Near Miss and Accident Reporting All incidents, near misses and accidents as a result of MOD Range activities and practices shall be reported in accordance with Service Manuals. |
| Rationale 02 RANGES (10) | To ensure that an appropriate investigation takes place and that lessons can be learned from any unplanned incident or accident on a range, resulting from live firing activity. |
| Acceptable Means of Compliance (AMC) 02 RANGES (10) | Evidence that any Incident, Near Miss or Accident involving injury or death, damage or loss of a weapon system/platform, damage to range infrastructure or any impact on environmental protection has been reported and followed-up to ensure lessons can be learned to prevent re-occurrence. |
| Guidance Material 02 RANGES (10) | Further guidance on how to meet the above AMC requirement is available in DSA03-OME Part 3 (JSP 403) - Defence Code of Practice (DCOP) and Guidance Notes for Ranges: <ul style="list-style-type: none"> • Vol 1, Part 2, Chap 1. • Vol 1, Part 2, Chap 5. • Vol 1, Part 2, Chap 7 Annex B. |

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| Regulation 02 RANGES (11) | Military Laser System Safety Assessment All laser systems shall have a Military Laser System Safety Assessment Certificate (MLSSAC) before they can be used in training and/or in service. |
| Rationale 02 RANGES (11) | Military Laser System Safety Assessment Certification provides confirmation of Independent 3rd Party Regulatory Assurance to the SofS and testifies the extent to which the requirements of the MOD Regulations have been complied with. Any deviation from meeting the specific regulatory safety requirements could have significant safety implications to platforms, personnel and other MOD assets. |
| Acceptable Means of Compliance (AMC) 02 RANGES (11) | Evidence of the following, as applicable: <ul style="list-style-type: none"> • Military Laser System Safety Assessment Certificate (MOD Form 2237). • Military Laser Trial Safety Clearance Certificate (MOD Form 2238A). • Military Laser Range Safety Clearance Certificate (MOD Form 2238B). |
| Guidance Material 02 RANGES (11) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 5 (JSP 390) - Defence Code of Practice (DCOP) and Guidance Notes for Military Lasers. |

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| Regulation 02 RANGES (12) | Non-Service Pattern Light Weapons (NSPLW) The use of NSPLW on MOD Ranges shall be authorised and approved as safe to use in accordance with Service Manuals. |
| Rationale 02 RANGES (12) | There are occasions when MOD personnel may be required to fire NSPLW. For reasons of time, quantities deployed, cost or operational requirements it is not always practical for these weapons to be subjected to the full series of tests normally conducted. |
| Acceptable Means of Compliance (AMC) 02 RANGES (12) | Evidence that the pre-firing assessment procedure has been followed before MOD personnel are authorised to fire the NSPLW. |
| Guidance Material 02 RANGES (12) | Further guidance on how to meet the above AMC requirement is available in DSA03-OME Part 3 (JSP 403) - Defence Code of Practice (DCOP) and Guidance Notes for Ranges: <ul style="list-style-type: none"> • Vol 1, Part 2. • Part 2, Vol 9, Annex H. |

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| Regulation 02 RANGES (13) | Approved Targets Only approved targets shall be used on MOD Ranges. |
| Rationale 02 RANGES (13) | The use of the approved targets is essential to the safety of a fixed range as the type, position and size of the targets are principal considerations in range design. Line of Sight (LoS) Quadrant Elevation (QE) and ricochet determine range geometry, which may be adversely affected if unapproved targets are used on MOD ranges. |
| Acceptable Means of Compliance (AMC) 02 RANGES (13) | Approved targets for all Target Mechanisms and Support Systems, including Fixed Target Mechanisms and accessories. |
| Guidance Material 02 RANGES (13) | Further guidance on how to meet the above AMC requirement is available in DSA03-OME Part 3 (JSP 403) - Defence Code of Practice (DCOP) and Guidance Notes for Ranges: <ul style="list-style-type: none"> • Vol 2. |

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| Regulation 02 RANGES (14) | Dry Training Areas (Reserved) |
| Rationale 02 RANGES (15) | |
| Acceptable Means of Compliance (AMC) 02 RANGES (15) | |
| Guidance Material 02 RANGES (15) | |

Part 4

Major Accident Control Regulations (MACR)

Justification

1. The Control of Major Accident Hazards Regulations 2015 (COMAH) and The Control of Major Accident Hazards Regulations (Northern Ireland) 2015 implement much of the Seveso III Directive (2012/18/EU) in Great Britain and Northern Ireland. The purpose of the COMAH Regulations is to prevent major accidents involving dangerous substances and limit the consequences to people and the environment of any accidents which do occur.
2. However, COMAH Regulations do not apply to MOD Establishments and therefore, Commanding Officers (CO) and Heads of Establishments (HOE) [*referred to as 'Operators' throughout these Regulations*] on MOD Establishments where the threshold quantities of dangerous substances identified in the Regulations are kept or used, shall observe the following Defence MACR.
3. These Regulations apply to all Lower Tier Establishments (LTE) and Upper Tier Establishments (UTE) as defined in COMAH.
4. Regulatory Governance is maintained through the Defence Major Accident Control Safety Committee (DMACSC) which reports to the DOSR Stakeholder Committee (DOSR SC). Additionally, a MOD Competent Authority Chaired by the 2* DSA Director Operations and Assurance and comprising DOSR, the Defence Fuels and Gases Safety Regulator (DFGSR), the Defence Fire Safety Regulator (DFSR) works in partnership with stakeholders to improve major accident hazard management and raise standards across the MOD.

| Number | Title |
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| 02 MACR (1) | General Duties of Operators |
| 02 MACR (2) | Notification of Holdings |
| 02 MACR (3) | Major Accident Prevention Policy (MAPP) |
| 02 MACR (4) | Safety Report (SR) |
| 02 MACR (5) | Environmental Risk Assessment (ERA) |

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| 02 MACR (6) | Emergency Plans |
| 02 MACR (7) | Provision of Information to the Public |
| 02 MACR (8) | Trans-boundary Consequences (Reserved) |
| 02 MACR (9) | Domino Effects and Domino Groups |
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| Regulation 02 MACR (1) | General Duties of Operators (a) Every operator shall take all measures necessary to prevent major accidents and limit their consequence for human health and the environment. (b) Every operator shall demonstrate to the competent authority that it has taken all measures necessary as specified in these Regulations. (c) Every operator shall provide the competent authority with such assistance as is necessary to enable the competent authority to perform its functions under these Regulations. |
| Rationale 02 MACR (1) | These are general duties on all operators and underpin these Regulations. They set a high standard that applies to all MOD establishments. ‘All measures necessary’ includes measures for mitigating the consequences of major accidents. It includes planning for emergencies and remedial measures for restoration of the environment in the event of a major accident. |
| Acceptable Means of Compliance (AMC) 02 MACR (1) | Each MOD establishment operator should liaise directly with DOSR to agree the arrangements for their establishment. |
| Guidance Material 02 MACR (1) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 4 (JSP 498) - Defence Code of Practice (DCOP) and Guidance Notes Defence Major Accident Control Regulations (MACR): <ul style="list-style-type: none"> • Chap 1, Para 12. • Chap 1, Para 18. • Chap 3, Para 2. • Chap 5, Para 50. • Chap 8, Para 9. |

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| Regulation 02 MACR (2) | Notification of Holdings Every operator shall provide DOSR with the required notification of holdings of qualifying hazardous material. |
| Rationale 02 MACR (2) | Notification of holdings is essential to enable DOSR to identify the qualifying threshold for MOD establishments. This will be used by DOSR to plan their assessment and inspection programmes and ensure the operator complies with their duties under these Regulations. |
| Acceptable Means of Compliance (AMC) 02 MACR (2) | The operator shall provide evidence notifying DOSR of the quantity of dangerous substances at its establishment where they will equal or exceed the thresholds in DSA 03 -OME Part 4 (JSP 498) Defence Code of Practice (DCOP) and Guidance Notes Defence Major Accident Control Regulations (MACR). |
| Guidance Material 02 MACR (2) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 4 (JSP 498) - Defence Code of Practice (DCOP) and Guidance Notes Defence Major Accident Control Regulations (MACR): <ul style="list-style-type: none"> • Annex 1A, Para 2. • Annex 1C. • Annex 1F. • Annex 2A. |

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| Regulation 02 MACR (3) | Major Accident Prevention Policy Every operator shall produce and maintain an up-to-date Major Accident Prevention Policy (MAPP). |
| Rationale 02 MACR (3) | The MAPP is a key document. Its purpose is to provide a statement of the senior management’s commitment to achieving high standards of major accident control measures. |
| Acceptable Means of Compliance (AMC) 02 MACR (3) | Operators should have a Major Accident Prevention Policy (MAPP) which should be a written document. For Lower Tier MACR establishments it is a standalone document but for Upper Tier MACR establishments the MAPP may be included in the Safety Report rather than as a separate document. The MAPP should be made available for inspection on request. A MAPP document should: <ul style="list-style-type: none"> • be designed to ensure a high level of protection of human health and the environment; • be proportionate to the major accident hazards; • set out the operator’s overall aims and principles of action; and • set out the role and responsibility of management, and its commitment towards continuously improving the control of major accident hazards. |
| Guidance Material 02 MACR (3) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 4 (JSP 498) - Defence Code of Practice (DCOP) and Guidance Notes Defence Major Accident Control Regulations (MACR): <ul style="list-style-type: none"> • Annex 1F. • Chapter 3, Para 14. • Chapter 9. |

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| Regulation 02 MACR (4) | Safety Report All operators of Upper Tier Establishments shall prepare and maintain an up-to-date Safety Report (SR). |
| Rationale 02 MACR (4) | The SR demonstrates that a MAPP and a safety management system for implementing it have been put into effect. It also demonstrates that the major accident hazards and possible major accident scenarios in relation to the establishment have been identified and that the necessary measures have been taken to prevent such accidents and to limit their consequences for human health and the environment. |
| Acceptable Means of Compliance (AMC) 02 MACR (4) | Operators should be able to demonstrate documentary evidence that a SR has been prepared, showing all measures necessary have been taken to prevent major accidents and to limit the consequences to people and the environment of any that do occur. |
| Guidance Material 02 MACR (4) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 4 (JSP 498) - Defence Code of Practice (DCOP) and Guidance Notes Defence Major Accident Control Regulations (MACR): <ul style="list-style-type: none"> • Annex 1G. • Chap 4. • Chap 8, Para 7. • Chap 10. |

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| Regulation 02 MACR (5) | Environmental Risk Assessment Every operator shall prepare and maintain an up-to-date Environmental Risk Assessment (ERA). |
| Rationale 02 MACR (5) | The ERA is required to ensure that operators have considered and are aware of the potential environmental consequences of their operations. |
| Acceptable Means of Compliance (AMC) 02 MACR (5) | Operators should be able to provide documentary evidence demonstrating a comprehensive, up-to-date ERA. |
| Guidance Material 02 MACR (5) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 4 (JSP 498) - Defence Code of Practice (DCOP) and Guidance Notes Defence Major Accident Control Regulations (MACR): <ul style="list-style-type: none"> • Chap 3, Para 27. • Chap 7, Para 10. • Chap 9, Section 8. |

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| Regulation 02 MACR (6) | Emergency Plans <p>(a) Every operator shall ensure both internal and external emergency plans meet the required objectives.</p> <p>(b) Every operator shall prepare, review, revise where necessary and test internal emergency plans.</p> <p>(c) Every operator of an Upper Tier Establishment shall provide the local authority with the necessary information to enable it to prepare, review, revise and test an external emergency plan.</p> <p>(d) Every operator shall implement both internal and external emergency plans as required.</p> |
| Rationale 02 MACR (6) | <p>This regulation requires MACR Establishments to ensure that the consequences of a major accident are minimised through the provision of effective on-site emergency planning and response arrangements and where necessary, dovetailing with the off-site emergency plans prepared by the local authorities under COMAH or civil contingencies legislation.</p> <p>Local authorities play a key role by preparing, reviewing, revising and testing off-site emergency plans for dealing with the off-site consequences of major accidents at Upper Tier Establishments.</p> |
| Acceptable Means of Compliance (AMC) 02 MACR (6) | <p>Operators should provide documentary evidence of the appropriate emergency plans.</p> |
| Guidance Material 02 MACR (6) | <p>Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 4 (JSP 498) - Defence Code of Practice (DCOP) and Guidance Notes Defence Major Accident Control Regulations (MACR):</p> <ul style="list-style-type: none"> • Chap 3, Para 36. • Chap 5, Para 16. • Chap 8, Para 16. |

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| Regulation 02 MACR (7) | Provision of Information to the Public (a) Every operator shall ensure the provision of information to the public is available, timely and up-to-date. (b) An operator of an Upper Tier Establishment shall provide information to anyone in an area likely to be affected by a major accident within the Public Information Zone (PIZ). |
| Rationale 02 MACR (7) | This Regulation is to ensure that residents within the PIZ are aware of the actions to be taken in the event of a major accident at the operator's establishment. |
| Acceptable Means of Compliance (AMC) 02 MACR (7) | Operators should provide evidence of how they achieve and maintain the provision of information to the public. |
| Guidance Material 02 MACR (7) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 4 (JSP 498) - Defence Code of Practice (DCOP) and Guidance Notes Defence Major Accident Control Regulations (MACR): <ul style="list-style-type: none"> • Chap 4, Para 16. • Chap 4, Annex 4A. |

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| Regulation 02 MACR (8) | Trans-boundary Consequences (Reserved) |
| Rationale 02 MACR (8) | |
| Acceptable Means of Compliance (AMC) 02 MACR (8) | |
| Guidance Material 02 MACR (8) | |

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| Regulation 02 MACR (9) | Domino Effects and Domino Groups Every operator shall identify domino groups and the potential risks and consequential effects. |
| Rationale 02 MACR (9) | Some establishments may be designated as being part of a ‘domino group’ – establishments where the likelihood or consequences of a major accident may be increased because of the location and proximity of other establishments and the dangerous substances present there. These establishments need special consideration in terms of emergency planning and the testing of the off-site response. The operators in the group should co-operate with each other in supplying any relevant information to the local authority. |
| Acceptable Means of Compliance (AMC) 02 MACR (9) | Operators should provide evidence that they have considered the possibility of another MACR or Control of Major Accident Hazards (COMAH) establishment being sufficiently close as to be a domino establishment. |
| Guidance Material 02 MACR (9) | Further guidance on how to meet the above AMC requirement is available in DSA 03.OME Part 4 (JSP 498) - Defence Code of Practice (DCOP) and Guidance Notes Defence Major Accident Control Regulations (MACR): <ul style="list-style-type: none"> • Chap 1, Annex 1C. • Chap 3, Para 13. |

