

CHAPTER 1

INTRODUCTION

CONTENTS

Para

- 1 JSP 482 MOD EXPLOSIVES REGULATIONS
 - 1.1 Applicability
 - 1.2 Applicability Overseas and in Operational Theatres
 - 1.3 Disobedience of Regulations
 - 1.4 Nuclear Weapons Facilities
- 2 SAFETY ASPECTS
 - 2.1 General
 - 2.2 Fundamental Principles
 - 2.3 Explosives Safety
 - 2.4 The Secretary of State's Health and Safety Policy Statement
- 3 THE ALARP\SFAIRP PRINCIPLE
 - 3.1 Introduction
 - 3.2 Limiting the Risk from Explosives
- 4 REGULATORY REQUIREMENTS
 - 4.1 General Safety Regulations
 - 4.2 Specific Safety Regulations
 - 4.3 Explosives Licence or Registration
 - 4.4 Measures in Relation to Fire or Explosion
 - 4.5 Classification of Explosives
 - 4.6 Risk Assessment
 - 4.7 Organisational Change
 - 4.8 Registers and Retention of Documents
 - 4.9 Control of Activities
 - 4.10 Communication of Risks
 - 4.11 Emergency and Disaster Planning
 - 4.12 Control and Unauthorised Access
 - 4.13 Safeguarding
 - 4.14 Maintenance of Stocks
 - 4.15 Disposal of Explosives
 - 4.16 Facilities, Plant & Equipment
 - 4.17 Staff
 - 4.18 Ships Visiting MOD Port Areas
 - 4.19 Inspections
 - 4.20 Accidents, Incidents, Performance Failures and Faults
- 5 AMENDMENT OR VARIATION
 - 5.1 Change Proposal
 - 5.2 DOSR Notice
 - 5.3 Approved Variations

Annex

A Preparation, Publication and Distribution of A DOSR Notice (Explosives)

1 JSP 482 MOD EXPLOSIVES REGULATIONS**1.1 Applicability**

1.1.1 These regulations, issued by the Chief Inspector of Explosives (MOD) and endorsed by the OME Safety and Environmental Stakeholder Committee (OSES), are produced for the guidance and instruction of all personnel, both Service personnel and MOD employed civilians (including supporting contracted staff), who are concerned with the management, storage, maintenance, inspection, processing, transport, handling and disposal of explosives and explosives storage facilities within the Ministry of Defence.

1.1.2 The regulations are based on mandatory provisions, in the form of legislation, and on the recommendations of the Explosives Storage and Transport Committee (ESTC) and NATO AC326, which set MOD standards and safety principles. The conditions provided by these regulations and such necessary ESTC recommendations are to be treated as the mandatory minimum safety regime that must be applied to explosives in the MOD.

1.1.3 Explosives in this context include all substances, and materiel containing substances, which are classified as Class 1 in the United Nations Recommendations on the Transport of Dangerous Goods (see Chapter 4).

1.1.4 Use or distribution of these regulations for other than this stated purpose is undertaken at own risk.

1.1.5 Management of explosives safety within MOD, for the maritime environment, is a two-stage process, outwith JSP 482. The first stage addresses the intrinsic explosive safety of the Ordnance, Munitions and Explosives (OME) following the process defined in JSP 520. This process is MOD wide, for all environments and is undertaken by the OME PT. The second stage is the integration of the OME into a maritime platform and is undertaken following the processes defined in JSP 430 and Naval Authority Regulations Chapter 8.

1.1.6 JSP 430 identifies embarked (OME) as a key hazard requiring independent safety approval and certification. Naval Authority Explosives NA (EXP) is formally authorised by the Defence Maritime Regulator (DMR) as an authority that is independent of the Platform Duty Holder and Operational Duty Holder and is responsible for providing safety regulation in the area of Shipborne Explosives hazards under JSP 862.

1.2 Applicability Overseas and in Operational Theatres

1.2.1 In overseas theatres, ports, anchorages, airfields etc it is the Secretary of State's (SofS) policy that the MOD applies all relevant UK/EU/International regulation or standards where reasonably practicable and, in addition, comply with relevant host nations standards.

1.2.2 Where there is ambiguous regulation or apparent gaps against UK legislation or standards, we are to implement management arrangements that produce outcomes that are, so far as reasonably practicable, at least as good as those required by UK legislation.

1.2.3 Where there is no relevant host nation legislation, our internal standards aim to optimise the balance between risks and benefits. This does not mean avoiding risks but managing them responsibly, on the basis of consequence and likelihood.

1.2.4 Where advice or direction is given by means of these regulations for peacetime, it is also normally to be applied during war or periods of tension, as to do otherwise may be seen as indefensible in court. For further information regarding application in operational theatres see Chapter 11.

1.3 Disobedience of Regulations

1.3.1 Infringements of JSP 482 MOD Explosives Regulations and any other associated regulations by any person will result in appropriate disciplinary action in accordance with MOD civilian or service procedures.

1.4 Nuclear Weapons Facilities

1.4.1 When Nuclear Weapons containing conventional explosives are stored, processed and handled in MOD Explosives facilities they will be subject to the conditions of this document.

2 SAFETY ASPECTS

2.1 General

1.1.7 Although there are many kinds of items in service that require special precautions to be taken in their handling and storage, those containing explosives (including pyrotechnic or incendiary substances and certain chemical compositions) form a special class. Additional precautions are therefore essential, not only to preserve their serviceability, but also to provide the minimum practicable/acceptable risk, not only for personnel handling them, but also to other persons and property. It must always be borne in mind that the regulations contained in this publication deal with items that are potentially dangerous.

1.1.8 All persons employed in the custody and handling of explosives, whether in peacetime, periods of tension, or war, are to apply both the spirit and the letter of these regulations.

2.2 Fundamental Principles

2.2.1 The fundamental principles underlying these regulations are:

- (1) The function of an explosive, pyrotechnic or incendiary substance or article is to explode or ignite violently. The greatest care is therefore to be taken at all times during storage, handling, transportation, processing, inspection, trials and disposal.
- (2) Explosives, even those with similar characteristics, differ in sensitiveness to heat, friction, shock and impact. They also differ in stability under varying climatic conditions, and in their rate of deterioration.
- (3) Whilst explosives are designed to be stable, this stability may decrease if they are poorly packaged or stored. Furthermore, any physical or chemical degradation in an explosive, such as could arise if explosives have exceeded their design life, almost invariably leads to greater sensitivity rather than less.

2.3 Explosives Safety

2.3.1 JSP 520 - Ordnance, Munitions and Explosives Safety and Environmental Management for the Equipment Acquisition Cycle and JSP 762 - Weapons and Munitions Through Life Capability, detail the procedures and standards to be followed to meet explosives safety requirements through life of the OME.

2.4 The Secretary of State's Health and Safety Policy Statement

2.4.1 JSP 375 & JSP 815 contain the Secretary of State's Health and Safety Policy Statement which requires the MOD to comply with the Health and Safety at Work etc Act 1974 (HSWA). This applies to all MOD (both Service and civilian) and Multi-Activity Contract (MAC) personnel and other Contractors personnel involved in explosives work, and includes internal MOD health and safety (H&S) standards in the UK. In overseas theatres, the same standards are to be applied in addition to accepting and applying the H&S legislation of the host nation (HN) where this requires higher standards. The Statement also requires the MOD to provide working conditions which will ensure, as far as reasonable practicable, a healthy and safe working environment. Fundamental to this policy is that risks from and to explosives are to be kept both tolerable and as low as reasonably practicable (ALARP).

2.4.2 The application of the principle of ALARP to explosives storage, handling, etc, is a matter of judgement. In deciding what is reasonably practicable about fulfilling the duty of care, cost will continually re-emerge as a factor. However, the definition of reasonably practicable concerning cost must be carefully studied alongside HSE guide-lines and not dismissed because finances or other resources are considered to be in short supply locally.

2.4.3 The principles of reducing risk to protect people are described in the HSE document 'Reducing Risk, Protecting People'². It is not possible or desirable to summarise this prime source document in this publication, but managers must have an understanding of the safety principles prescribed therein in order to make effective safety related judgements. HSE requires that safety management is a proactive process that considers and takes account of the all risks and does not discount them as improbable through perception alone. Furthermore, the public perception of risk must be taken into account as what they consider as foreseeable and inevitable over time or through neglect has often become the overriding factor in case law.

3 THE ALARP\FAIRP PRINCIPLE

3.1 Introduction

3.1.1 The HSWA places a general duty on all employers to exercise a duty of care to provide the best safety standards within the law and the bounds of reasonable practicability. This duty of care encompasses all those who might be put at risk, be they workers or members of the public, whether on site or remote from it, inclusive of risk generated away from the site, (which might, for example, be derived from dispatching explosives by road). The test for adequacy of such safety provision will be the rigorous application of reasonable practicability as currently understood. Where the MOD is granted exemption to normal rules, it is only for the purposes of achieving the Defence Imperative and this has to be taken into account in determining what is reasonably practicable.

3.1.2 Reliance on numbers from risk assessments, which by definition are estimates, is recognised by HSE as not being enough to give best safety practice. Other factors must be taken into account when making a decision about the tolerability of risks, such as whether the Courts would agree that risks are ALARP. For example, where the potential consequences of an accident were clearly death or serious injury and no safety measures were provided because costs were considered to be prohibitive, a case for compensation in Court would be more easily won if a cost benefit analysis (CBA) had not been carried out.

3.1.3 While small risks might only be worthy of cursory consideration, larger risks demand detailed analysis to properly justify the risk imposed on people. The effort undertaken on the risk assessment must be proportional to the risk. Reliance on a small resultant risk estimate will not help the MOD case when it might be proven that, with some additional thought and expense, effective risk reduction measures could have been put in place but for the will to do so.

3.1.4 The principles of reducing risk to protect people are described in the HSE document 'Reducing Risk, Protecting People'². It is not possible or desirable to summarise this prime source document in this publication, but managers must have an understanding of the safety principles prescribed therein and the hierarchy of controls as defined in the Management of H&S at Work Regulations, 1999 in order to make effective safety related judgements. HSE requires that safety management is a proactive process that considers and takes account of all risks and does not discount them as improbable through perception alone. Furthermore, the public perception of risk must be taken into account as what they consider as foreseeable and inevitable over time or through neglect has often become the overriding factor in case law.

3.1.5 Technology alone cannot make life risk free as designers and planners may not have sufficient experience or insight to foresee all possible events. This is especially true of the results of a culmination of human failings that can conspire under 'Murphy's Law' to cause accidents. Hence, cost is only one factor for consideration in this multi-dimensional arena.

3.2 Limiting the Risk From Explosives

3.2.1 All facilities used for storing and processing explosives must be licensed as suitable for the intended purpose. The HSE performs this role in the civil sector and CIE (MOD) Licences all explosives areas controlled by the MOD. For an explosives licence to be issued, CIE(MOD), through the offices of the respective IEs, must be satisfied that the facility will generate risks to people that are ALARP.

3.2.2 In addition to ensuring that MOD explosives facilities are safe, CIE (MOD) must be assured that explosives safety management arrangements continue to deliver a safe defence capability in accordance with MOD business and operational imperatives. It is essential that, for example, storage capacity is adequate for forecast defence needs that encompass future strategic assumptions and not just day to day business. It has therefore been the custom to exploit fully the maximum licensable potential derived from Quantity Distances (QDs). However, while licensing for future needs and Safeguarding to protect against encroachment to Site Potential are a necessity, under the ALARP principle, it is not permissible to grant a working licence for more than the explosives quantity that can be clearly justified for the prevailing conditions. Experience has shown that the risk associated with individual PES licensed and operated under normal MOD rules is normally within the Tolerable Region. In the case of large, complex sites, the cumulative risks from individual licensed facilities within the site will generate a higher cumulative risk.

3.2.3 In order to demonstrate ALARP for processing facilities, it is necessary to keep the quantity of explosives present that hazard people to the minimum. Accumulations of explosives awaiting processing, return to store, or dispatch after processing are to be kept to a minimum.

3.2.4 Concurrent processing of two or more munitions should be avoided since the activities of one processing team places its neighbouring team at risk and vice

² DDE11 5/99

versa. Whenever concurrent processing of munitions is to be undertaken by 2 or more teams in the same process room, it is essential that the HoE provides evidence that appropriate protection has been afforded to all teams.

3.2.5 The number of personnel exposed to explosives risks must always be kept to the minimum and all avoidable exposure must be eliminated. All personnel non-essential to that activity must be given appropriate protection from fire and explosion and closely controlled by local procedures laid down by the Duty Holder. Where people in fixed ES, who are necessarily mentioned on the PES licence to enable closer safety management, are put at risk, and it subsequently becomes practicable to move those personnel and their activity elsewhere, it is not acceptable to substitute other personnel or another activity to take advantage of the latitude recorded on the licence. Any new need must be justified in its own right with the realisation that new facilities and activities may require, by law and HSE guidance, much higher levels of protection from risk. For multi-role facilities, the need to temporarily remove from risk those personnel not involved in the current operation must be considered even if it is not prescribed explicitly on the licence.

3.2.6 The prime principle of ALARP is to think beyond pure licensing regulations as a permissioning system and to consider whether the activity could more reasonably practicably be performed in a safer manner. If safety can be practicably improved beyond the rules here prescribed, then a clear duty exists to do so that must be discharged. It is thus not sufficient to rely upon rules that take no account of local conditions that might demand or allow a greater level of safety provision. Therefore, for example, it might be permissible within these rules to place explosives at a reduced QD from people thus increasing their level of risk, but if an alternative location exists where the activity can be carried out at a greater separation distance, despite any perceived difficulties and inconvenience, that greater protection to life must be afforded. In this case however, the risks associated with relocating stocks should also be considered.

3.2.7 Clearly, while on operations, in times of crisis or war, such action may not be practicable because other far reaching risks may be increased by not affording the best operational solution to site activity. Therefore, through general agreement with the MOD, the HSE has acknowledged that the Defence Imperative should be taken into account in determining what is reasonably practicable to ensure the health and safety of employees and others involved with defence operations and that training directly related to operations. Personnel responsible for safety must look beyond their immediate surroundings and situation to improve safety where local conditions and practicability exists. This is to be thought of as a necessary and mandatory continuous lateral thinking exercise.

3.2.8 What is reasonably practicable will inevitably be a matter for judgement. However, by 'accepting the risk' Duty Holders must satisfy themselves that, in their professional judgement, their decision is supported by thoroughly researched and balanced arguments that can be expected to hold up before searching scrutiny in a Court of Law. The resulting Explosives Licence is therefore to indicate or cross reference, in as much detail as possible, the factors and constraints governing the authorised NEQ limits and the matters that must be addressed, supervised and reviewed for effective safety management.

3.2.9 However, it is essential for duty holders to note that although there is a general duty to manage risks so that they are ALARP where, in such cases the regulations are limited to "Shall..." or "Shall so far as is practicable", in some cases legislation places a greater duty than "Shall so far as is Reasonably Practicable". MSER, for example, in relation to the prevention of fire and explosion, the limiting of

the spread of fire and explosion and the protecting of people from the effects of fire and explosion places an **absolute** duty to take appropriate measures.

3.2.10 Further detailed information is available from the HSE at: www.hse.gov.uk/risk/theory/alarp.htm

4 REGULATORY REQUIREMENTS

4.1 General Safety Regulations

4.1.1 The Management of Health and Safety at Work Regulations 1999 (MHSWR) require the risks from a work activity to be assessed and appropriate measures taken to control them. Further requirements to carry out an assessment in relation to the risks arising from dangerous substances are contained in The Dangerous Substances and Explosives Atmospheres Regulations 2002 (DSEAR). (DSEAR is contained In JSP 375 Volume Two Leaflet 56. In respect of MOD explosives facilities it will normally only be required where there is potential for dusts or vapours to be created).

4.1.2 Regulation 5 of MHSWR requires employers to have arrangements in place to manage health and safety. Effective management will depend upon, among other things, a suitably competent management organisation; suitable risk assessments being carried out and the findings being used effectively; competent work force with adequate instruction, information, supervision and training.

4.1.3 It is important that management arrangements are drawn up to ensure that appropriate arrangements for health and safety are in place and that the roles and responsibilities are specified and understood. The arrangements need to be fully integrated into the sites safety management systems for all aspects of the sites activities.

4.1.4 It is essential that all staff have the necessary training and competence for the work they undertake. This covers not only the skills necessary to undertake their work under normal conditions, but also an appropriate understanding of the hazards and risks which may arise, and the actions to be taken, in abnormal situations. It will also be necessary to consider the training and competency of contractors.

4.1.5 Staff, contractors and anyone else working on, or visiting the site, must be provided with appropriate information on safety, including where relevant, information on:

- (1) Workplace rules.
- (2) Limits on numbers of people exposed to the explosives hazards.
- (3) Types of tools and equipment allowed for use in explosives areas and any controls.
- (4) Location of controlled areas.
- (5) Use of Personal Protective Equipment where required.
- (6) Emergency procedures.
- (7) Hazards associated with the site and any controls as appropriate.

4.2 Specific Safety Regulations

4.2.1 The following safety regulations represent the SofS scheme as required by the Manufacture and Storage of Explosives Regulations 2005 (MSER). The specific regulations for a MOD Duty Holder in relation to explosives activities on a MOD

establishment are detailed below. For the purposes of these regulations they shall be deemed to include any handling, on site transport and testing of explosives which is associated with the manufacture, processing, handling or storage of explosives.

4.2.2 In these regulations fire or explosion means unplanned fire or explosion. Within these regulations explosives means all articles and substances of UN Class 1.

4.2.3 The term MOD Duty Holder when used here refers to the MOD person who has been issued the explosives licence(s) and therefore has the responsibility of managing the explosives activities in accordance with statutory and MOD standards.

4.2.4 The detailed regulations in this JSP have been built on all of the foregoing foundations. A distinction is made between those regulations that are mandatory and those that are advisory by the use of 'is to', 'are to', 'will', 'must' or 'shall' in mandatory regulations, from which no departure is permitted without the prior authority of the Chief Inspector of Explosives (MOD) [CIE(MOD)].

4.2.5 Local orders or instructions that may be issued in connection with explosives are not to depart in any way from the mandatory regulations, and are to conform as closely as reasonably practicable to the advisory regulations.

4.3 Explosives Licence or Registration

4.3.1 The HoE shall ensure that no facility or site on his establishment is used for the manufacture, processing handling or storage, of explosives without an Explosives Licence or a Registration as appropriate. (See Chapter 9)

4.3.2 Where a site is subject to contractor operation, it may be that the explosives licence will be issued to the contractor iaw the MSER instead of the MOD issuing the explosives licence to a MOD Duty Holder.

4.4 Measures in Relation to Fire or Explosion

4.4.1 The MOD Duty Holder shall take appropriate measures to prevent fire and explosion. The principle issue to be addressed is the prevention of accidental initiation of explosives. This involves keeping the sources of ignition away from explosives. It also involves controlling the presence of explosives, including any potential vapours and dusts, in areas of activity.

4.4.2 Sources of ignition to be considered will depend upon the activity and the conclusions of the risk assessment. Generally prevention of fire or explosion will require control of one or more of the following:

- (1) Sources of ignition and other articles with the potential for fire. See Chapter 12.
- (2) Electrical, electrostatic and electromagnetic energy that has the potential to cause spark which may initiate a fire or sensitive electro-explosives devices. Consideration must be given to fixed electrical installations, portable electrical equipment, lightning protection and sources of electrostatic or electromagnetic energy. See Chapter 8.
- (3) Mechanical energy/sparks have the potential to cause sparks through metal to metal contact or generate heat through friction. Non sparking hand tools must be used for processes where explosives will be exposed.
- (4) Heat and Temperature must be controlled so as to prevent explosives coming into unintentional contact with hot surfaces unless the contact is intentional as part of a process. Where a process requires intentional exposure

to heat or raised temperature the period of exposure must be controlled. See Chapters 12 and 19.

(5) Where pressure is used as part of the process involving explosives both the safe maximum pressure and the safe rate of application of pressure must be considered.

(6) Impact and Friction.

(7) Compatibility.

(8) Work equipment.

(9) Building maintenance.

(10) Grounds maintenance.

(11) Fire precautions.

(12) Fire detection and warning systems.

4.4.3 The MOD Duty Holder shall take appropriate measures to limit the extent of fire or explosion; and prevent the spread of fire or explosion; and the communication of fire or explosion from one location to another by;

(1) Separation distances.

(2) Setting explosives limits in processing activities.

(3) Compatibility group mixing.

(4) Limiting quantities of explosives.

(5) Limiting numbers of people.

(6) Containment and safe release of blast effects.

(7) Ensuring that authorised Explosives Licence limits are never exceeded at all explosives facilities and that all conditions of any Explosives Licence are observed at all times.

(8) Establishing and maintaining an agreed scheme of fire-fighting to meet all contingencies.

(9) Maintaining, in conjunction with the appropriate HQ/IE, maps or drawings showing the location of all explosives buildings and distances to public traffic routes, inhabited and uninhabited buildings on and off MOD property. These maps are not to be confused with the DIO Plan E Safeguarding Maps.

4.4.4 The MOD Delivery Duty Holder shall take appropriate measures to protect persons from the effects of fire or explosion by;

(1) Ensuring that the movement of all explosives is subject to a system of control and authorisation, taking into account any other hazardous activities occurring.

(2) Establishing and enforcing personnel limits for explosives facilities, including jetties, buoys and berths, and proof and disposal areas which are the minimum required commensurate with carrying specific tasks safely.

(3) Maintaining the integrity of the Safeguarded areas around his establishment and reporting to the appropriate HQ/IE any attempts to infringe it.

(4) Reviewing civilian and Service developments within the Safeguarded area to see that there are no infringements on licensed explosives limits.

(5) Maintaining, in conjunction with the appropriate HQ/IE, maps or drawings showing the location of all explosives buildings and distances to public traffic routes, inhabited and uninhabited buildings on and off MOD property. These maps are not to be confused with the DIO Plan E Safeguarding Maps.

- (6) Setting man limits at each stage of the processing activities.
- (7) Means of escape.
- (8) Protection against explosion.

4.5 **Classification of Explosives**

4.5.1 All military explosives must be classified by the Explosives Storage and Transport Committee (ESTC) before they can be stored or transported by the MOD. This classification identifies the hazard presented by the explosives in the event of an initiation.

4.5.2 Further details are given in Chapter 4

4.6 **Risk Assessment**

4.6.1 The MOD Duty Holder shall carry out suitable and sufficient assessment of the risks in relation to the activities authorised by their explosives licence.

4.7 **Organisational Change**

4.7.1 The MOD Duty Holder shall assess the safety consequences of organisational change. (See JSP 375 Volume Two Leaflet 58 for more detailed advice).

4.8 **Registers and Retention of Documents**

4.8.1 A register of all Explosives Licences and registered locations within their functional area must be maintained by the IEs on behalf of CIE (MOD) in accordance with Chapter 9.

4.9 **Control of Activities**

4.9.1 The MOD Duty Holder shall put into place appropriate controls for activities in the facilities or areas where they hold the explosives licence(s) by;

- (1) Producing and maintaining standing instructions and orders to take account of local conditions in relation to the safe and secure operation of the explosives facilities and activities, to supplement national or other orders and any conditions specified on the Explosives Licences or in explosive item-specific publications.
- (2) Producing a Safe System of Work for all activities in the explosives facilities/areas ensure that work is carried out strictly in accordance with them. Reviewing, periodically, working conditions and processes within the explosives area.
- (3) Consult the appropriate IE before undertaking any operations not covered by established procedures, instructions or methods.

4.10 **Communication of Risks**

4.10.1 The MOD Duty Holder shall ensure that risks are communicated to employees and others who may be affected by their risks.

4.10.2 The MOD Duty Holder shall provide comprehensible and relevant information, to his employees, and others who may be affected by their activities, including the employer of any contractors, agency staff, visiting workers and contractors staff on;

- (1) the risks to their health and safety identified by the risk assessment(s); and
- (2) the preventive and protective measures required to control the risks.

4.11 Emergency and Disaster Planning

4.11.1 The MOD Duty Holder shall ensure that adequate resources are provided to develop and manage emergency and disaster plans, and major accident prevention policies, including the setting up of a Control Centre (CC) where appropriate. (See JSP 375 Volume Two Leaflet One and JSP 498 MACR).

4.11.2 The MOD Duty Holder can ensure this by;

- (1) Implementing a system to report and investigate accidents, incidents, defects and malfunctions.
- (2) Establishing and maintaining an agreed scheme of fire-fighting to meet all contingencies.
- (3) Ensuring that arrangements are made to contact local external services with particular regard to First Aid, emergency medical care, fire and evacuation.

4.12 Control and Unauthorised Access

4.12.1 The MOD Duty Holder shall control access to explosives, explosives areas and facilities and prevent unauthorised access by;

- (1) Taking every precaution to ensure safe custody of items in their charge, ensuring that the regulations in this JSP (see Chapter 12) and in JSP 440 are observed.

4.12.2 Where civilian contractors are required to have unsupervised (by crown employees) access to MOD Explosives (including the keys to explosives facilities), the MOD Duty Holder shall not pass possession of explosives to the contractor unless they have evidence that the contractor has the following:

- (1) Relevant Certification in accordance with the Control of Explosives Regulations 1991, where explosives are regulated under COER 1991 for UN Numbers not exempted by Schedule 1 to COER 1991 (as amended by MSER 2005) or regulated or prohibited by virtue of the Firearms Act. (Where MOD holds the explosives licence then an Acquire Only Certificate is required; if the contractor holds the explosives licence then an Acquire and Keep Certificate is required); and
- (2) That certificate allows the acquisition of the UN Numbers and quantities to be passed to the contractor.

4.12.3 Where civilian contractors are required to have unsupervised access to MOD ammunition regulated by the Firearms Act 1968 (as amended), the MOD Duty Holder shall not pass possession of ammunition to the contractor unless they have evidence that the contractor is;

- (1) A Registered Firearms Dealer for ammunition regulated under section one of the Firearms Act; and, in the case of ammunition prohibited by virtue of Section Five of the Firearms Act 1968 (as amended).

(2) A Section Five Authority. (A Section Five Authority issued by the Home Office is only valid for England and Wales. For Scotland it must be issued by the Scottish Executive).

4.12.4 For MOD Ports Areas Only. Formally permitting vessels/craft to be berthed alongside a jetty, non-tidal basin or, in short term only, dry dock. Vessels berthing in non-tidal basins or entering dry dock normally disembark all explosives other than those required for use in an emergency. Any exceptions must be authorized by the HoE, in this case the Naval Base Commander (NBC).

4.12.5 For DM Establishments Supporting the Fleet Only. Ensuring, before issuing stores to HM Ships, that the items have been cleared by the Naval Authority explosives and are listed on the ship's Authorised List of Explosives Stores (ALES - see JSP 862 Addendum).

4.12.6 Where establishments provide licensed facilities for the storage or processing of explosives by visiting or lodger units, and it is the HoE of the establishment that is issued the explosive licence(s), the HoE shall have responsibility for the management and the safe operation of the licensed facilities.

4.12.7 Where explosives facilities are provided for the use by lodger or visiting units, the HoE or a member of their staff, must be appropriately trained in their explosives safety duties as they retain the responsibility for compliance with Licensee duties and therefore, ultimately are accountable for the explosives activities conducted under the authority of the explosives licence.

4.12.8 Operation of the facilities can be devolved to the lodger units however; the lodger unit must operate in accordance with the written orders issued by the explosives licensee.

4.12.9 HoE's providing explosives storage and/or processing facilities for lodger or visiting units must ensure that, where they do not retain the operation of the facility, the lodger or visiting unit provide suitably trained staff to operate it. Such staff must have the appropriate competences iaw Chapter 3. In this instance the HoE will be required to demonstrate that they have adequate supervision over the daily operation of the explosives facilities.

4.12.10 Where HoE's provide explosives facilities for use by lodger or visiting units and have an appropriately qualified member of staff to operate the facility, there will be no requirement for the visiting unit to provide a suitably qualified person. Lodger or visiting units shall not leave explosives or empty ammunition packages which have not been certified free from explosives at establishments when permanently vacating them, unless;

- (1) They have made suitable arrangements with the host to do so;
- and
- (2) The host has the competent staff to manage the explosives or packages left by the lodger unit.

4.13 Safeguarding

4.13.1 The MOD Duty Holder at each explosives establishment shall have in place a system to control encroachment within its Outside Quantity Distances. Encroachment could seriously impact on the licensing criteria.

4.13.2 Further details are given in Chapter 22.

4.14 Maintenance of Stocks

4.14.1 The HoE shall:

- (1) So far as is Practicable ensure a regular programme of periodic inspection is instituted by Project Teams.
- (2) Ensure that work is undertaken to maintain his authorized holdings in a serviceable condition.
- (3) Ensure that items are kept in explosives facilities in an orderly manner which secures their safety and preservation and facilitates turn over in accordance with Regulations and requirements.
- (4) Ensure that only authorized items are kept in the explosives facilities under his control, unless otherwise instructed by CIE(MOD) when storage conditions will also be specified.

4.15 Disposal of Explosives

4.15.1 The MOD Duty Holder shall ensure explosives are disposed of safely and not as general waste. Anyone disposing of explosives should be aware that they have a duty to do so in a way that is not harmful to the environment.

4.15.2 Further details are given in Chapter 27.

4.16 Facilities, Plant and Equipment

4.16.1 The MOD Duty Holder shall;

- (1) Before giving agreement to any drawings, specifications or other proposals, which may result in any new facilities, alterations to existing facilities or the siting of plant and equipment, ensure that safety is not affected by convening a siting board.
- (2) Ensure that all facilities, plant, equipment, handling and lifting equipment for explosives are installed, maintained and tested in accordance with current regulations.
- (3) Ensure that all tests of equipment and plant (including electrical installations, lightning protection systems, lifting appliances, MHE and handling equipment) are carried out by a competent person and suitable records maintained.
- (4) Ensure that any facilities, equipment or plant that is deemed unserviceable or overdue for statutory and/or other MOD mandatory tests or inspections are not used, and unauthorised use must be prevented.
- (5) Ensure facilities, plant or equipment taken out of use for storage or disposal after being used on explosives likely to contaminate it are subject to appropriate measures to certify them free from explosives. Advice can be sought from their IE.
- (6) Ensure decontamination is strictly in accordance with agreed safe systems of work and is carried out under the appropriate full-time supervision before the plant or equipment is taken out of use.

4.17 Staff

4.17.1 In staff matters, the MOD Duty Holder shall :

- (1) Put in place a system to determine the competence and experience requirements of each position employed on OME tasks;

- (2) Ensure all personnel employed in areas he holds the explosives licence(s) for receive adequate pre-employment and continuation training and are given every opportunity to further increase their explosives and explosives safety knowledge.
- (3) Ensure that staff have the appropriate competencies and experience for the activities they are undertaking;
- (4) Ensure supervisors are not permitted to oversee any tasks involving the manufacture, processing, handling or storage of explosives until such a time as they are considered by the explosives licensee to be thoroughly familiar with all the relevant regulations and safe practices pertinent to the task.
- (5) Ensure all personnel, including Young Persons and the disabled, proposed for entry to the explosives area /facility, are suitable for the work which will be required of them.
- (6) Not employ anyone under the age of 16 years in the explosives areas.
- (7) Ensure any person between the ages of 16 years and 18 years employed in the explosives areas shall be appropriately supervised. (MHSWR places specific duties on employers with regards to the employment of young people). In general the presumption should be not to employ young people in roles where they are directly involved in the manufacture, processing or storage of explosives or frequently go into explosives facilities unless there are good reasons for doing so.
- (8) Not employ any person who is a Prohibited Person for the purposes of the Control of Explosives Regulations 1991 in a position where they will handle; or have any form of control; or acquire; or keep explosives. (Members of the Armed Forces are exempt this restriction¹)
- (9) Not allow any person who is a Prohibited Person for the purposes of the Firearms Act 1968 (as amended) to have possession of ammunition regulated or prohibited by the Firearms Act 1968 (as amended). (Civil Servants and Members of the Armed Forces are exempt this restriction when possession is required as part of their official duties)
- (10) Not allow any person who is addicted to alcohol or controlled substances to be employed in explosives areas.
- (11) Not allow any person who is under the influence of alcohol or controlled substances to enter the explosives areas.
- (12) Require any employee employed in the explosives areas to report to their line manager if they are prescribed any medicine that might affect their ability to operate safely.
- (13) Ensure a system is in place to ensure that contractors working within Inhabited Building Distance (IBD) of explosives facilities are adequately protected. (See Chapter 18).

4.18 Ships Visiting MOD Port Areas

4.18.1 The CO/Master of a visiting ship is:

- (1) Required to ensure that full compliance with regulations for embarked explosives, JSP 862, is maintained whilst present in a MOD Port area.
- (2) To comply with any additional local precautions specified by the HoE. In time of war or equivalent emergency, the HoE will give instructions concerning the manning of defensive armament and for the retention of explosives for the protection and safety of the ship whilst in the port area.

¹ Civil Servants are not members of the armed forces.

Except for this specific purpose, priming or fuzing of explosives is not permitted while ships are alongside.

(3) To ensure an appropriate afloat location for any planned explosives activity is agreed with the HoE.

(4) To ensure that no explosives, other than HD 1.4, are handled or moved whilst alongside wharves and jetties except than for the purpose of permitted embarkation or disembarkation, which is to be carried out in accordance with JSP 862. Any operationally essential exception to this regulation must be specifically approved by the responsible IE.

(5) To ensure that gun bays, RU lockers and RU magazines are emptied, and the contents placed in main magazines, before arriving in a port area. Any explosives that cannot be properly stowed in their main magazine are to be disembarked before occupying any alongside berth.

4.19 Inspections

4.19.1 Periodic inspections must be carried out by appropriately competent inspectors to ensure that the MOD Explosives Regulations are being complied with and that the facilities are fit for purpose.

4.19.2 Further details are given in Chapter 20.

4.20 Accidents, Incidents, Performance Failures and Faults

4.20.1 A system must be in place to report all accidents, incidents, performance failures and faults.

4.20.2 Further details are given in Chapter 25.

5 AMENDMENT OR VARIATION

5.1 Change Proposal

5.1.1 Any comments, recommendations or amendments relating to this publication can be made using the JSP 482 Change Proposal Form available on the Defence Intranet.

5.2 DOSR Notice (Explosives)

5.2.1 This JSP is updated and published on the Defence Intranet. If there is a need to disseminate material, during the publication cycle, to the users to meet the needs of policy changes, introduction of new or revised procedures and explosives, and for reasons of safety and general information then a DOSR Notice (Explosives) is produced. (See Annex A).

5.3 Approved Variations

5.3.1 With the exception of explosives licensing, for which alternative arrangements apply (see Chapter 9), any non-compliance with a requirement or standard mandated in these regulations must be formally assessed, agreed and recorded by means of an Approved Variation. The Head of Establishment (HoE) must refer, in writing, all such requests for a variation from these regulations to the appropriate Inspector of Explosives (IE). The variation request must include comprehensive details of why compliance cannot be achieved and the proposed alternative arrangements that must demonstrate that appropriate standards of explosives safety will still be achieved. Requests for Approved Variations concerning the safety of electrical equipment and electrical installations are to be submitted as required within Chapter 8, all other subject matter requests are to be made using MOD Form 1675.

5.3.2 The IE will review the proposal and, if content that the request is both reasonable and adequately documented, refer it to CIE (MOD) for approval. The appropriate ESTC Technical Adviser will staff the request as necessary. If satisfied that appropriate standards of explosives safety will be achieved, the Approving Authority will issue an Approved Variation to the appropriate IE for onward transmission to the Duty Holder.

5.3.3 The Approved Variation will be time limited to a maximum of 5 years, although renewal will be permitted if it is not reasonably practicable to eliminate the need for the variation in the intervening period. All requests for renewal must be made at least 3 months before the expiry date to allow adequate time for staffing. Approved Variations are to be reviewed by the appropriate IE on an annual basis and Duty Holders invited to confirm that the necessity for each variation remains valid. All Approved Variations are specific to particular facilities, applications and circumstances and may not be read across to others without a new variation proposal being submitted.

5.3.4 A record of Approved Variations is to be kept by the Duty Holder, the IE and CIE (MOD). To ensure that an accurate reconciliation of records can be maintained, all IE's are to inform CIE (MOD) annually of the current validity of Approved Variations that remain extant within their area of responsibility.

CHAPTER 1**ANNEX A****PREPARATION, PUBLICATION AND DISTRIBUTION OF A DOSR NOTICE
(EXPLOSIVES)****CONTENTS**

Para

- 1 DOSR NOTICE (EXPLOSIVES)
- 1.1 Introduction
- 1.2 Sponsorship and Procedures
- 1.3 Responsibilities
- 1.4 Preparation
- 1.5 Publication
- 1.6 Distribution
- 1.7 DOSR Explosives Notice Type
- 1.8 Cancellation
- 1.9 Archiving

Appendix

- 1 Format of DOSR Notice (Explosives)

1 DOSR NOTICE (EXPLOSIVES)**1.1 Introduction**

1.1.1 This JSP is updated and published on the Defence Intranet. When there is a need to disseminate material, during the publication cycle, to the users of the JSP a DOSR Notice (Explosives) will be produced. These are produced to meet the needs of policy changes, introduction of new or revised procedures, safety critical and general information. This Annex explains the process sponsors must follow to produce a DOSR Notice (Explosives).

1.1.2 A DOSR Notice (Explosives) provides a quick and convenient means of disseminating urgent information and to initiate new policies, in advance of formal publication. They are normally prepared as advance amendments to JSP 482 and will normally remain extant until the next issue of the JSP. They have priority for preparation over all other ESTC publications and as such are only to be utilised after careful consideration between Sec ESTC and the sponsor branch. A DOSR Notice (Explosives) is published under ESTC authority.

1.2 Sponsorship and Procedures

1.2.1 Each DOSR Notice (Explosives) has a sponsor who is responsible for:

- (1) Ensuring its currency and accuracy. To achieve this, the sponsor is to initiate and provide a draft of the DOSR Notice (Explosives) in the format shown at Appendix 1 to Sec ESTC.
- (2) Ensuring that any additional technical information required is provided to Sec ESTC in a timely manner.
- (3) Ensuring that before any new equipment enters into Service a DOSR Notice (Explosives) is produced if necessary.

- (4) Ensuring that the Army School of Ammunition (AS of A) is aware of any training requirements the issue of the DOSR Explosives Notice may raise.
- (5) Discussing and agreeing all proposed content with all Inspectors of Explosives (IEs) and CIE (MOD) staff.
- (6) Co-ordination of input and approval from the various management areas concerned.
- (7) Deciding the Protective Markings required to satisfy security requirements bearing in mind that classified material cannot subsequently be incorporated into JSP 482.

1.2.2 A record of DOSR Notice (Explosives) and sponsors is to be maintained by Sec ESTC to enable referencing, sponsors will be allocated a number once the DOSR Notice (Explosives) is ready for issue.

1.3 Responsibilities

1.3.1 Sec ESTC, as sponsor and editor of JSP 482 is the editor of a DOSR Notice (Explosives) and is responsible for their production standards, quality and consistency.

1.3.2 DOSR Notice (Explosives) sponsors have duty of care responsibilities for the correctness of technical information and for the safety of any procedures described.

1.4 Preparation

1.4.1 A DOSR Notice (Explosives) is designed to distribute information as quickly and widely as possible. The staffing process, whilst thorough must be expedited quickly. Email is to be used as the normal method of information exchange. In all cases nil returns will be required to both action and information addresses to prove the staffing route.

1.4.2 The DOSR Notice (Explosives) is to provide sufficient technical information on explosives and their associated procedures to allow personnel to carry out their technical role in a safe and professional manner. The DOSR Explosives Notice should be a definitive document and contain as much detail on the subject area as is appropriate.

1.4.3 Final approval for release of a DOSR Notice (Explosives) rests with the sponsor.

1.4.4 Assistant Sec ESTC (Publications) (DSEA-DOSR-EST4) is to write the DOSR Notice (Explosives) based on the agreed draft submitted by the sponsor in the format at Appendix 1.

1.4.5 A DOSR Notice (Explosives) will not be amended. Any changes are to be made by reissue of the DOSR Notice (Explosives) with any differences highlighted.

1.4.6 If the proposed DOSR Notice (Explosives) is to be incorporated into JSP 482 at the next annual update, the sponsor is responsible for providing, in a timely manner, the necessary amendment to JSP 482 for agreement at the JSP 482 Editorial Group. This amendment should be in the correct format for JSP 482.

1.5 Publication

1.5.1 A DOSR Notice (Explosives) will be promulgated on the Defence Intranet.

1.5.2 An advance copy of the DOSR Notice (Explosives) will be issued by email as applicable.

1.6 Type

1.6.1 A DOSR Notice (Explosives) will be an interim publication until the information can be incorporated into JSP 482 at the annual update. As such, they

are normally extant for less than 12 months. JSP 482 will remain an unclassified document.

1.7 Cancellation

1.7.1 A DOSR Notice (Explosives) will be automatically cancelled once incorporated into JSP 482. In all other cases, sponsors must formally notify Sec ESTC to cancel a DOSR Notice (Explosives) in writing. Once formally agreed, it is the sponsor's responsibility to promulgate the cancellation to users and Sec ESTC's responsibility to amend the appropriate publications.

1.8 Archiving

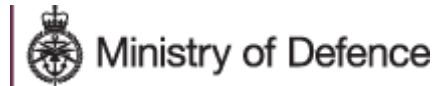
1.8.1 Sec ESTC is to maintain a print file for each DOSR Notice (Explosives), which is to provide a clear audit trail of authority to publish, sponsor approvals, history and origin of changes and ultimately, cancellation.

Intentional Blank Page

CHAPTER 1

ANNEX A

APPENDIX 1



DEFENCE SAFETY & ENVIRONMENT AUTHORITY

Explosives Safety & Transport

Fir 3b, MOD Abbey Wood South #4304

BRISTOL, BS34 8JH

Telephone: 030 679 35117

Email: DSEA-DOSR-EST4@mod.uk

DOSR NOTICE (EXPLOSIVES) (<insert year>) / <insert number>

<insert subject title>	
Who should read this:	
Category:	For example, policy, ACOP or guidance
Cancellation date:	
Point of contact:	

Reference(s):A. **Insert relevant references****Attachments:**Annex A. **Insert relevant attachment****1. Purpose**

1.1 The purpose of the DOSR Notice (Explosives) is to provide a swift method of circulating an update to the requirements and/or guidance of JSP 482, prior to the issue of a formal update.

1.2 This DOSR Notice (Explosives) (XX)/XX has been issued

2. Aim**3. Background****4. Policy****5. Action required**

Original Signed
 Stephen Gillström McLean
 Sec ESTC

Intentional Blank Page