Defence
Safety Authority

DSA 03.OME Part 2 (JSP 482) - Defence Code of Practice (DCOP) and Guidance Notes for In-Service and Operational Safety Management of OME

Defence OME Safety Regulator

DOSR

DSA VISION

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

PREFACE

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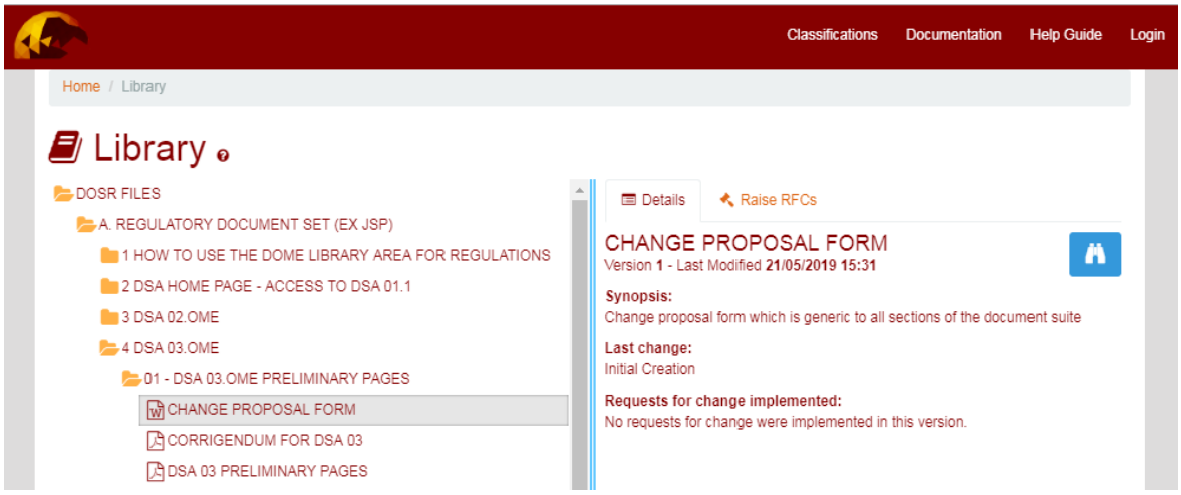

Figure 1. Change Proposal Form (Word version) Location

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7. Changes effecting Risk to Life will be published immediately.

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AMENDMENT RECORD

Version 1.0					
No	**Section**	**Para**	**Amendment Summary**	**Agreed**	**Date**

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CHAPTER 10

SECTION 8

AUTHORISED QUANTITIES OF EXPLOSIVES

CONTENTS

1 SECTION EIGHT

1.1 Introduction

1.1.1 The MOD often has a requirement to use small quantities of explosives as part of its day to day activities, or situations may arise which are not catered for by normal regulations and for which special conditions of storage may be considered necessary. Where the risks are as low as reasonably practicable (ALARP), and where it is neither practicable nor necessary to apply the full conditions of storage normally required by Chapter 10 of this guidance, the licensing regime detailed in the following paragraphs may be applied. Cost savings and management expediency measures are not to be used as the justification for the provision of facilities under this section of Chapter 10.

1.1.2 In this case, 'reasonable' means that the increased degree of risk associated with the storage of explosives in accordance with the criteria in this section of Chapter 10 is balanced against the time and physical difficulty of taking measures to avoid such risks (i.e. to take measures that will enable the PES to be licensed in accordance with Chapter 10). If the increased risks are such that it would be unreasonable for the persons concerned to have to be subjected to them, the explosives storage is not to be authorised. The greater the risk, the more reasonable it would be to incur very substantial expense to reduce it. If the consequences and the extent of risk are small, insistence on great expense would not be considered reasonable. The principle to observe is that risk should be ALARP.

1.2 Scope

1.2.1 This section defines the minimum criteria acceptable to DSA DOSR CIE(MOD) for explosives stored and processed in conditions that are not in accordance with Chapter 10. IE Inspectors (see Chapter 20) will always have the right of access to view these explosive facilities and justification for any increased risks to personnel will be sought.

2 APPLICABILITY

2.1 Permitted Hazard Classification Codes

2.1.1 With the exception of the special cases detailed in Annex A to Annex F, the storage of pyrotechnic, smoke producing, illuminating, incendiary and lachrymatory natures of Compatibility Group G, within Hazard Divisions 1.2 and 1.3, with a total NEQ not exceeding 25 kg is permitted in a weather-proof building or security approved structure.

2.2 HD 1.4

2.2.1 In addition to the 25 kg of HD 1.2 and HD 1.3 of CG G in para 2.1.1, above, any quantity HD 1.4 natures may also be stored without aggregation. For the exclusive storage of SAA of HCC 1.4C and HCC 1.4S, see Annex A.

3 LICENSING CRITERIA

3.1 Justifiable NEQ

3.1.1 The facilities in question are to be authorised, in the manner described in Chapter 9, using the Authorised Quantities Explosives Licence, MOD Form 1659 where the natures of the explosives are known to be constant, or Explosives Licence, MOD Form 1658 where a changing variety of natures is anticipated. That is not to say that these facilities are automatically authorised to store 25 kg NEQ, but that they may store a justified aggregated NEQ of up to 25 kg. The IE is to stipulate on the MOD Form 1659 the types and quantities of explosives authorised.

3.2 **Constraints**

3.2.1 The building or room to be licensed is subject to the following additional constraints:

(1) All explosives are to be classified by DOSR and stored in their approved packaging.

(2) The building is to meet the security requirements of JSP 440.

(3) For a room within a building used as a TA centre, the walls should be a nominal thickness of 215 mm brick or equivalent. Provided that these walls extend for a minimum of 1 m above any explosives stack, no specifications are made for roof construction.

(4) Windows are not normally permitted in buildings or compartments used only for storage.

(5) When explosives are present, the appropriate Hazard Division and Supplementary signs are to be displayed at all normal access routes.

(6) Unless specifically authorised by the appropriate IE, no licensed building/room is permitted to contain any drill, instructional, fired or any other inert munition or empty explosives packages if live explosives are present also.

(7) Articles classified as 'dangerous goods' and related to the explosives (such as Matches) may be stored with explosives of HD 1.2, HD 1.3 or HD 1.4 provided they are stored either in a separate compartment or in a suitable metal container.

3.3 **Fire Prevention and Fire Fighting Requirements**

3.3.1 Fire Prevention and Fire Fighting requirements are to be agreed by the unit Senior Fire Officer/FFP. However, the following minimum fire separation distances and fire prevention measures are normally to be provided:

(1) Normally, a minimum distance of 10 m from other buildings, or from aircraft, is required. Stand-alone PES that are directly associated with an ES (e.g. a PES containing safety equipment adjacent to the SES workshop) may be sited closer provided adequate fire fighting access is provided (normally 6 m), and/or adequate structural protection is available at the PES to enable speedy evacuation of the ES. The minimum distance does not apply where the store is a room within a building used as a TA centre, provided there is adequate means of escape, which does not pass the store, from all parts of the building.

(2) A minimum distance of 25 m from all types of bulk fuel/LPG/LOX facilities. For small quantities of POL, a separation distance of 10 m is to be maintained.

(3) Smoking is normally prohibited within 15 m of explosives, but lesser distances may be permitted by the IE/SATO subject to local orders being produced by the unit Explosives Safety Officer in conjunction with the unit Fire Officer/FFP. Smoking may be permitted in an adjacent room or compartment to the PES provided that the designated smoking room is separated from the PES by a minimum of two separate sets of self-closing fire doors.

(4) Car parks are not normally to be sited closer than 10 m. Suitable precautions are always to be taken to prevent any fuel spillage in the car park flowing towards the PES.

3.4 **Heating**

3.4.1 All heated PES licensed under this section are to have protective guards provided to prevent any explosives or equipment or packages containing explosives from coming into contact with hot surfaces (e.g. radiators and the pipes serving them). The design of the guards is to be such that it is not possible for items to rest on them, i.e. they are to have a sloping top. Radiant-type electrical heaters are not permitted.

3.5 **Plant Rooms**

3.5.1 Plant rooms may be present within buildings containing a PES provided that they are within a separate compartment that provides a minimum of 30 minutes fire protection to the PES, and are not directly accessible to the PES.

3.6 **Sealing of Packages**

3.6.1 One package of each type of explosives nature held by each unit using the store maybe held with broken seals. However, such packages are to be correctly closed.

3.7 **Lightning Protection Systems**

3.7.1 Lightning Protection Systems are not normally required unless the loss of the contents of the PES is operationally unacceptable and there is not an undue risk to personnel in the PES (see Chapter 8).

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SECTION 8

ANNEX A

STORAGE OF AUTHORISED QUANTITIES OF SAA OF HCC 1.4C AND HCC 1.4S

CONTENTS

1 AUTHORISED QUANTITIES OF SAA OF HCC 1.4C AND HCC 1.4S

1.1 Introduction

1.1.1 There are many instances throughout the MOD where there is a requirement to store very small quantities of SAA. Examples of this type of storage are TA Centre armouries, Cadet Facilities, Guardrooms, MOD Police posts, etc. Any room or building which is weatherproof may be licensed for the exclusive storage of Small Arms Ammunition belonging to HCC 1.4C and HCC 1.4S without QD restrictions.

2 APPLICABILITY

2.1 TA Centres and Cadet Facilities

2.1.1 For the facilities listed below, the additional regulations specified for each are to be applied.

(1) The IE/SATO/(RN, RAF or Civilian Equivalent) is to stipulate on the MOD Form 1659 the type and quantities of SAA authorised.

(2) It meets the security requirements of JSP 440.

(3) The unit Senior Fire Officer/FFP agrees Fire Prevention and Fire Fighting requirements.

(4) A Hazard Division 1.4 sign is to be displayed on the container but need not be displayed on the building.

(5) The ammunition is to be kept in a metal container in a secure location as directed by the local security adviser. The container is to be kept secured at all times except when the ammunition is being received, issued or inspected.

(6) Records are to be maintained of the Natures, Quantities and Workdates of the ammunition held and of the dates when the ammunition is turned over for use at training.

(7) The ammunition is to be inspected by the supervisor at least weekly and a record maintained of the inspections.

(8) Where only .22" ammunition is stored and does not exceed 2000 rounds, no licence is required. The local 11 EOD Regiment RLC Troop (on behalf of IE Army), or other appropriate IE is to maintain a register of all such sites and is to inspect them in the same manner as normal unit ammunition inspections within their routine inspection cycle.

2.1.2 There is no requirement for TA Centres and Cadet Facilities storing SAA only to maintain a PES Log Book.

2.2 **Guardrooms and Police Posts**

2.2.1 Unit Guardrooms and Police Posts may be permitted to hold Small Arms Ammunition belonging to HCC 1.4C and HCC 1.4S and Baton Rounds of HCC 1.4C and HCC 1.4S without the need for an explosives licence or QD restrictions provided that:

(1) The quantity is kept to the absolute minimum required for sentry duties and to arm only those personnel nominated as an immediate response force for a security incident.

(2) The ammunition is to be kept in a metal container in a secure location as directed by the local security adviser. The container is to be kept secured at all times except when the ammunition is being received, issued or inspected.

(3) Records are to be maintained of the Natures, Quantities and Workdates of the ammunition held and of the dates when the ammunition is turned over for use at training.

(4) The ammunition is to be inspected by a Duty Officer at least once within a 24-hour period and a record maintained of the inspections.

(5) A Hazard Division 1.4 sign is to be displayed on the container but need not be displayed on the building.

(6) The local 11 EOD Regiment RLC Troop (on behalf of IE Army), or other appropriate IE is to maintain a register of all such sites and is to inspect them in the same manner as normal unit ammunition inspections within their routine inspection cycle.

(7) Where the Guardroom / Police Post is licensed on an AQ(SAA) licence due to storage of training ammunition, the Baton Rounds may be added to this licence.

2.3 **Instant/Emergency Response Locations**

2.3.1 Some Units have a requirement for personnel, not in the guardforce or the guardroom, to be prepared for an instant response to certain security or emergency situations. These personnel may be required to be armed with Small Arms Ammunition and a limited amount of pyrotechnics.

2.3.2 These explosives may be held in certain nominated locations without the need for an explosives licence or QD restrictions provided that they are subjected to the same conditions as those for Guardrooms and Police Posts at Paragraphs 2.2.1(1) to 2.2.1(6) above and the correct Hazard Division is displayed on the container.

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ANNEX B

SURVIVAL EQUIPMENT SECTIONS

CONTENTS

1 SURVIVAL EQUIPMENT SECTIONS

1.1 Introduction

1.1.1 Life Saving Equipment containing pyrotechnics / associated explosives has been classified by DOSR as Dangerous Goods and is detailed in Chapter 4. Maintenance activities on these equipments are detailed in the following paragraphs.

2 MAINTENANCE ACTIVITIES

2.1 Limitations

2.1.1 The maintenance of any explosives in Flying Clothing and SES is to be limited to the following:

(1) Visual examinations.

(2) The fitting and removal of explosives from the parent equipment.

2.1.2 All other explosives maintenance is to be carried out in an explosives processing area licensed in accordance with Chapter 10, Section 2 for the appropriate maintenance operations. Explosives removed from their parent equipment are to be retained within suitably marked metal boxes pending their refitting or return to main stock. All pyrotechnics removed from life-saving equipment and left unattended are to be treated as explosives and are to be stored in an explosives licensed facility.

2.2 Explosives Preparation Area for Survival Equipment Pyrotechnics

2.2.1 A designated area for the preparation and maintenance of the explosives used in survival equipment may be licensed provided it complies with the following requirements:

(1) The authorised area is to provide sufficient space for an adequate working surface and a minimum of two personnel. The working surface is to be of a smooth spark-proof material.

(2) It may be any suitable room or area within a building, or it may be in the open, with or without cover, providing it is not subject to any but normal fire hazards. To prevent the possibility of the area from becoming contaminated by potentially hazardous substances, the working area is only to be used for the maintenance of pyrotechnics.

(3) Only the minimum quantity of pyrotechnics for the task is to be taken into the area.

(4) All explosives are to be removed from the area immediately on completion of the maintenance task.

(5) The maintenance task is to be as detailed by the IE/SATO on the MOD Form 1659 for the area. The maintenance of mechanical firing devices (e.g. auto-deployment units and 16 mm Signal Pistols) is not permitted in the area.

(6) Fire Prevention and Fire Fighting requirements are to be agreed by the unit Senior Fire Officer/FFP. The relevant fire and supplementary signs are to be displayed when explosives are present.

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ANNEX C

AIRCRAFT ASSISTED ESCAPE SYSTEM EXPLOSIVES

CONTENTS

1 AIRCRAFT ASSISTED ESCAPE SYSTEM EXPLOSIVES

1.1 Introduction

1.1.1 Aircraft Assisted Escape System (AAES) components that contain explosives and which have been removed from aircraft but not disarmed are normally to be stored in special-to-type design buildings (STTDB). However, where these facilities are not provided, or are not in close proximity to the maintenance areas, AAES components containing explosives may be temporarily stored for a period not exceeding 24 hours, in licensed Designated Areas within hangars or other aircraft maintenance areas. Licensed Designated Areas (which may be the STTDB) are also to be used for the arming and disarming of ejection seats. All the facilities detailed below are to be licensed in accordance with Chapter 9, and the IE is to stipulate on the MOD Form 1659 the types and quantities of explosives authorized.

1.2 **NEQ Limits**

1.2.1 The maximum NEQ limits allowable for facilities licensed in accordance with this annex are:

HD/SsD	**1.1**	**1.2.2**	**1.3**	**1.4**
Designated Area in Hangar/HAS	NIL	Aggregated 25 kg		
Ejection Seat Storage BuildingTP[1]PT	NIL	Aggregated 100 kg		
Ejection Seat Pan Storage BuildingP[1P]	NIL	Aggregated 15 kg		

Figure 1 NEQ Limits

1.3 **HAS/Hangar/Maintenance Bay Designated Areas**

1.3.1 Designated Areas in hangars or maintenance bays may be necessary for the temporary storage of explosives, or equipment with explosives installed, to support maintenance activities when other storage facilities are not available. A Designated Area is to be sited in a remote part of the hangar or maintenance building where the passage of personnel is minimal. It is not normally to be sited near normal or emergency building exit routes without the agreement in writing of the unit Fire Officer. The bounds of the area are to be clearly defined by painted markings on the ground and barriers, and the area is to be used exclusively for the storage of the authorized explosives.

1.3.2 Immediate readiness life-saving equipment may also be stored in a suitable Designated Area or building that is not subject to greater than normal fire risks. The quantity is to be limited to that required to meet aircraft generation times and the appropriate fire/supplementary symbols are to be displayed.

1.4 **Ejection Seat Storage Buildings**

1.4.1 A type design storage building for ejection seats fitted with rocket packs is to beTP[2]PT:

(1) Constructed in accordance with Chapter 6.

(2) For the current design of Ejection Seat Storage where the seats are stored in bays with blow out panels and the remainder of the building construction is brick walled with a protective concrete roof, then a minimum separation distance of 30m should be applied in all directions from the building. If Splinter Protection Units (SPUs) are placed externally at a minimum separation distance from the walls then no specific separation distance is required from any wall so protected. These considerations are based on the design concept that seat storage bays on two opposing walls then there is no requirement for SPUs except for the external walls joining the two sets of storage bays. However a 30m separation distance will still be required from the walls in which the blow out panels are located to provide protection from debris and blast if the panels operate in design mode.

(3) If the Ejection Seat Storage building is constructed exclusively from reinforced concrete, with the exception of the blow out panels, then the only QD requirement is

[1] Or compartment if the building is compartmented and the walls of each compartment are constructed in accordance with para 1.4.1.
[2] Units unable to meet these criteria are to contact DOSG, through the relevant IE, for advice.

for 30m from the wall in which the blow out panels are located to provide protection from debris and blast if the panels operate in design mode.

(4) Each compartment is limited to two ejection seats complete with rocket packs or two rocket packs in their authorized packaging.

(5) Ejection seats stored with fitted rocket packs are to be oriented such that, with the stand in the upright position, the face of the head box must point towards the blow out panel.

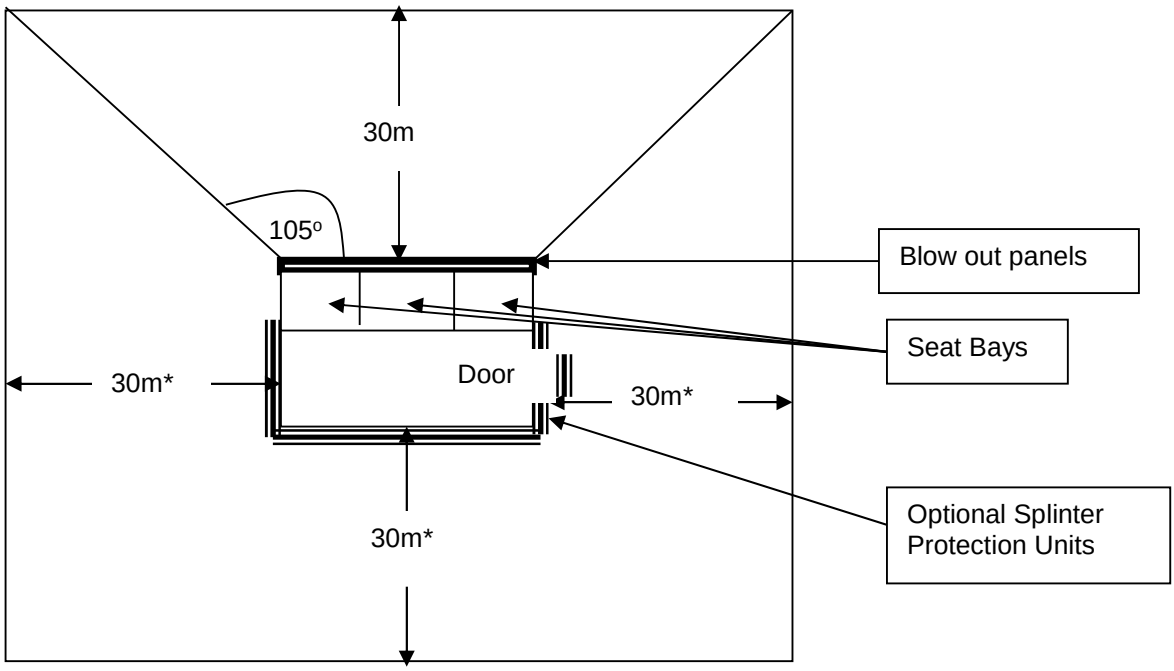
1.4.2 If the building is of the type-design described in Chapter 6 and has a clear area forward of the compartment doors (i.e. the opposite end to the frangible panel), this area may be used for the arming or disarming of the seat and the fitting or removal of survival equipment. Subject to the conditions at para 1.6 and para 1.7, this area may also be licensed for the maintenance of aircraft canopies fitted with fragmentation systems provided that:

(1) All explosives not associated with the canopy maintenance are removed from the area, except that armed ejection seats may remain in their compartments providing the doors remain closed.

(2) Only sufficient explosives for the current task are stored in the area.

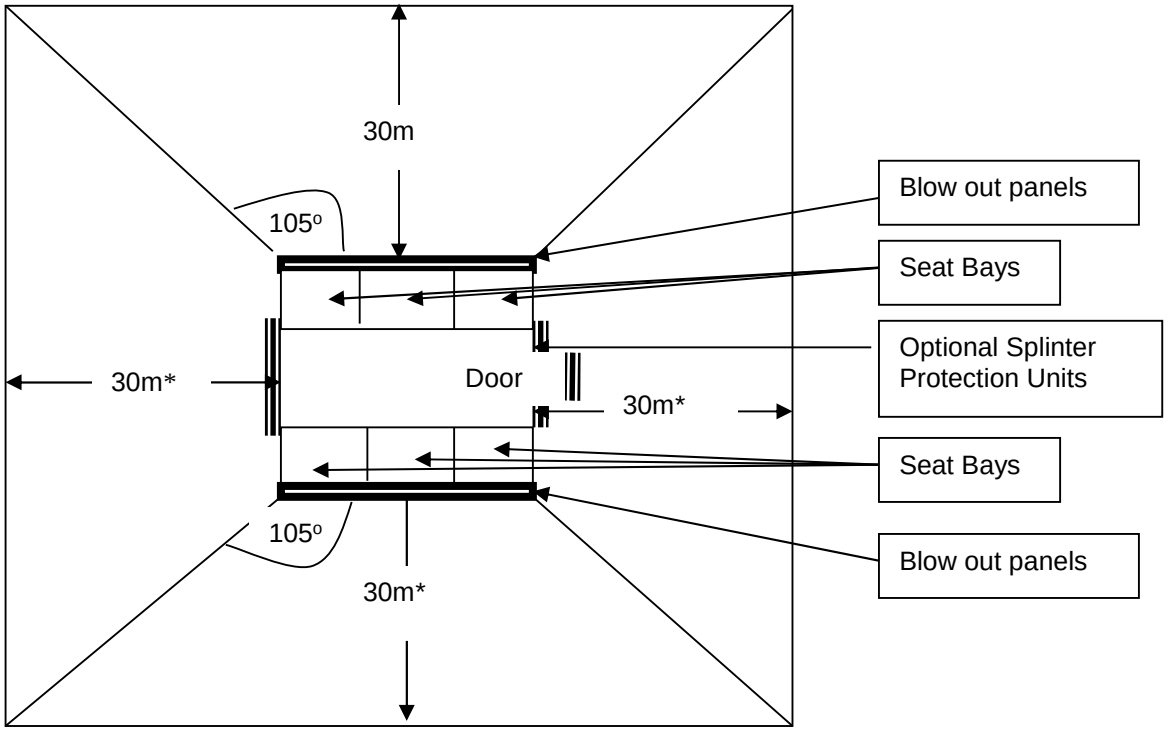
(3) All explosives are removed from the area once the task has been completed.

Figure 2 Ejector Seat Storage Building with one row of Seat Bays



Drawing not to scale
* The 30m separation may be dispensed with if either
a) The optional splinter protection units are placed against the outside of the external walls as shown or
b) The external walls are constructed of reinforced concrete

Figure 3 Ejector Seat Storage Building with two rows of Seat Bays



Drawing not to scale
* The 30m separation may be dispensed with if either
a) The optional splinter protection units are placed against the outside of the external walls as shown or
b) The external walls are constructed of reinforced concrete

1.5 **Storage of Ejection Seats and Seat Pans**

1.5.1 Ejection seats or seat pans removed for aircraft servicing are to be stored for periods not exceeding 24 hours in licensed Designated Areas within hangars, aircraft servicing areas or HAS. Secondary cartridges may be left in ejection guns, but other, removed, cartridges are to be stored in a lockable metal box/locker that is to be sited within the designated area.

1.5.2 In hangars or aircraft servicing areas, seats or seat pans fitted with rocket packs are to be removed at the end of a working day and stored in a licensed type design building described at para 1.3 or para 1.4, above. Alternatively, the rocket packs are to be removed and stored, in their approved packaging, in a type design building or other licensed PES. Seat cartridges may remain in the designated area provided they are stored in lockable metal boxes/lockers. On units where there is no licensed special-to-type design Ejection Seat Storage Building or these facilities are not in close proximity, the following is to apply:

(1) Seats or seat pans fitted with rocket packs and other cartridges may remain in the designated area within a hangar/HAS until completion of the aircraft maintenance. Where this maintenance period will exceed 24 hours, the rocket packs are to be removed and returned to the main explosives storage facility for safe custody storage.

(2) Seats without rocket packs fitted but with other cartridges fitted may be stored in designated areas within hangars, aircraft servicing areas or HAS until completion of the aircraft maintenance. If the maintenance period will exceed five working days, the explosives are to be removed and returned to the main explosives storage facility for safe custody storage.

1.6 **Storage of Aircraft Canopies Fitted With Fragmentation Systems**

1.6.1 When aircraft canopies fitted with MDC, LCC, and/or rocket motors are removed for aircraft servicing or held as spares, they may be stored in aircraft hangars or HAS. The canopies are to be labelled with the appropriate HD sign and a prominent 'Explosives Fitted' label, and placed on racks, stands, or in type-designed containers in a licensed Designated Area. The following conditions are to be applied:

(1) Canopies are to have their detonators, canopy rocket motors and rocket initiator cartridges removed, except that these items may remain fitted if the canopy is stored in its type-designed container.

(2) When any maintenance of a canopy takes place, detonators, rocket initiator cartridges and rocket motors are to be removed and stored in a lockable metal box that is to be sited within the designated area.

(3) Spare canopies are to be stored without detonators/initiators fitted. When detonator replacement in the aircraft is either impracticable or difficult, these operations are to be carried out in a Process Building or other area that is authorized for that purpose.

1.7 **Maintenance of Aircraft Canopies Fitted With Fragmentation Systems**

1.7.1 Canopy fragmentation systems and canopies fitted with fragmentation systems which have been removed from aircraft may be maintained and have MDC/LCC fitted to or removed from them in a Process Building, without QD, provided that:

(1) The designated Process Building is separated from other work areas by a robust and fire resistant internal partition or wall, and ceiling, of sufficient strength to contain the fragmentation hazard. Any glazing present is to be approved safety glass or similar shatter proof material as detailed in Chapter 6.

(2) Canopy fragmentation system components not in immediate use are to be stored in a lockable steel box, or other approved container, within the designated area. Detonators, canopy rocket motors and initiators are to be stored in a separate steel box or approved container.

(3) All initiators, detonators and firing devices are to be removed and stored in a lockable steel box or approved container prior to any maintenance work being carried out.

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CHAPTER 10

SECTION 8

ANNEX D

AIR TRAFFIC CONTROL FACILITIES

CONTENTS

1 AIR TRAFFIC CONTROL FACILITIES

1.1 Introduction

1.1.1 Air Traffic Control Towers, Range Control Buildings, Runway Control Vehicles/Caravans and similar facilities have a requirement for explosives to be available for 'Immediate Use' for signalling or bird dispersal purposes. Explosives may be positioned at these facilities whilst the facility is manned. The unit Explosives Safety Officer is to agree the quantity and type of explosives required with the unit Senior Air Traffic Control Officer.

2 AIR TRAFFIC CONTROL AND RANGE CONTROL BUILDINGS

2.1 Introduction

2.1.1 Explosives may be present under the conditions outlined below:

(1) Inside Air Traffic Control (ATC) and Range Control buildings for immediate use by controllers during flying operations,
or
(2) Outside such buildings for use on the ground, or as replacements for the explosives held in ATC tower/Range Control building.

2.2 Internal Storage

2.2.1 Up to 1kg of unpackaged pyrotechnics can be retained in a suitable rack which, whilst providing easy access for the controllers, affords protection from accidental damage to the explosives. The appropriate HD and safety signs are to be displayed.

2.2.2 All explosives are to be removed from these racks at cease-work and stored in a normal external PES. Where the local situation make this difficult, such as would occur at a remote landing ground with no external PES, and the unit Security and Fire Officers consider that there is no risk to personnel and the explosives, then, exceptionally, they may be left in the racks at cease-work. However, when the ATC facility is not to be used for periods in excess of 72 hours, the explosives must be removed.

2.3 External Storage

2.3.1 External storage can be any suitably constructed (i.e. brick, concrete or metal) weatherproof building or locker which is sited i.a.w. the Fire Fighting Requirements stated in paragraph 3.3.1 to Section 8 above. from the ATC buildings (including Fire Sections co-located with ATC) and all other buildings. The PES is to be sited, and the doors located, as far as is practical, away from the exits from the ATC or other buildings. The compartments are to be secured by approved security locks selected from JSP 440. When explosives related Dangerous Goods are to be stored, they are to be in a separate compartment or suitable metal container. This storage is to be licensed using MOD Form 1659.

3 AIR TRAFFIC/RANGE CONTROL/BIRD CONTROL DUTY VEHICLES

3.1 Air Traffic Control Vehicles

3.1.1 Explosives in Runway/Bird Control Vehicles/Caravans are to be retained in a suitable rack which, whilst providing easy access for the controllers, affords protection from accidental damage. When the control vehicle/caravan is being moved, the explosives are to be removed from the rack and placed in a suitable metal box that will positively secure the explosives whilst the vehicle is moving. When the control vehicle/caravan is not in use, all explosives are to be removed and stored in an alternative licensed PES. If the control

vehicle/caravan is to travel on the public roads, the requirements of DSA03.DLSR.LSSR are to be complied with.

3.2 **Bird Scaring Cartridges**

3.2.1 The following warning is to be posted for all bird control operatives to clearly see:

WARNING
THE FOLLOWING CARTRIDGES WHICH ARE USED IN AIR TRAFFIC CONTROL AND BIRD CONTROL DUTIES HAVE THE SAME CALIBRE AND ARE SIMILAR IN LENGTH.

(a) CARTRIDGE 12 BORE SHOTGUN.

(b) CARTRIDGE 12 BORE SHOTGUN BLANK.

(c) CARTRIDGE BIRDSCARING (VARIOUS MARKS).

IT IS PHYSICALLY POSSIBLE TO FIT THESE CARTRIDGES TO WEAPONS FOR WHICH THEY ARE NOT SUITABLE AND IN DOING SO, THEY WILL BE LIABLE TO CAUSE SERIOUS INJURY TO THE FIRER. ONLY CARTRIDGES OF THE SAME TYPE AND METHOD OF FUNCTIONING ARE TO BE STORED IN THE SAME CONTAINER OR RACK. THE ONLY CERTAIN WAY OF DIFFERENTIATING BETWEEN THE 12 BORE CARTRIDGE AND THE CARTRIDGE BIRD SCARING IS BY THE LEGEND 'DANGER - FIRES AN EXPLOSIVE PROJECTILE' WHICH IS PRINTED ON THE CARTRIDGE CASE AND THIS POSITIVE METHOD OF IDENTIFICATION IS TO BE USED AT ALL TIMES.

3.2.2 A maximum of two H83 type containers fitted with locally produced cartridge holders, manufactured in accordance with the drawings at Appendix 1 and Appendix 2 to this annex, may be carried in a duty vehicle; each container may hold a maximum of 45 cartridges.

3.2.3 The unit Explosives Safety Officer is to ensure that local orders are issued on the 'method of use' to ensure that the risk of cartridges of similar calibre, but which are different in their functioning, are not allowed to become mixed. He is to review such orders annually.

3.2.4 When the vehicle is not in use all boxes containing explosives are to be removed and placed in a licensed PES. Details of the containers to be used for the carriage of Bird-scaring and shotgun cartridges whilst on airfield duties are given in Appendix 1. The box to be used for 12 Bore cartridges is to be painted red overall with the warning signs shown in Fig 1 of Appendix 2 marked on two sides. The box to be used for Bird Scaring Cartridges is to be painted white overall and marked with the warning signs shown in Fig 2 of Appendix 2 marked on two sides. Appropriate HD signs are also to be displayed on the boxes. Expended cartridge cases are not to be mixed with live cartridges but are to be collected in separate suitably marked boxes and returned at frequent intervals.

4 **NON-MILITARY EXPLOSIVES SUPPLIED BY CONTRACTED BIRD CONTROL UNIT PERSONNEL**

4.1 **Storage**

4.1.1 At many units, Contract personnel carry out BCU duties, and the terms of the contract require them to provide their own explosives (and in some cases their own weapons). Provided that the cartridges have been classified by HSE (see Chapter 4), MOD explosives storage facilities are to be made available to store these non-military explosives.

4.1.2 The unit is responsible for ensuring that any non-military explosives are compatible with the contract task and serviceable for storage. Any explosives that the unit considers do

not appear to be serviceable are to be rejected and the contractor requested to remove them from the unit.

4.2 **Transportation**

4.2.1 Units are not required to carry out the procedures detailed in DSA03.DLSR.LSSR when the contractor is removing non-military explosives from the unit. Compliance with the UK law is the sole responsibility of the contractor.

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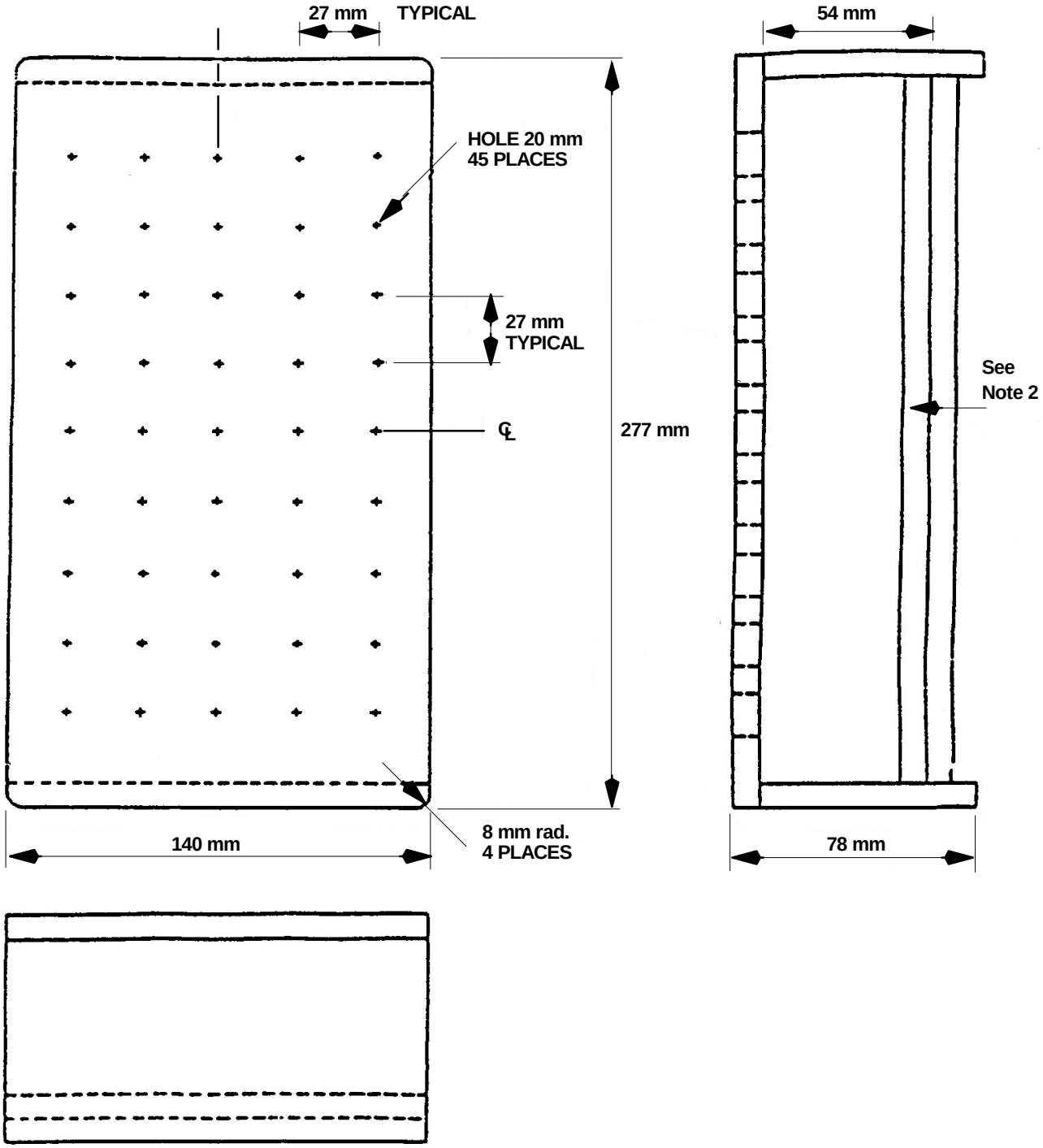
ANNEX D APPENDIX 1

LOCALLY MANUFACTURED CARTRIDGE HOLDER



NOTES
(1) Material 3/8in plywood (or equivalent) except where stipulated.
(2) 33C 9507527 Rubber Sheet or equivalent.
(3) Manufacture 2 off per container.
(4) Drawings not to scale.
(5) Dimensions are approximate.

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ANNEX D APPENDIX 2

LOCALLY MANUFACTURED CARTRIDGE HOLDER WARNING SIGNS

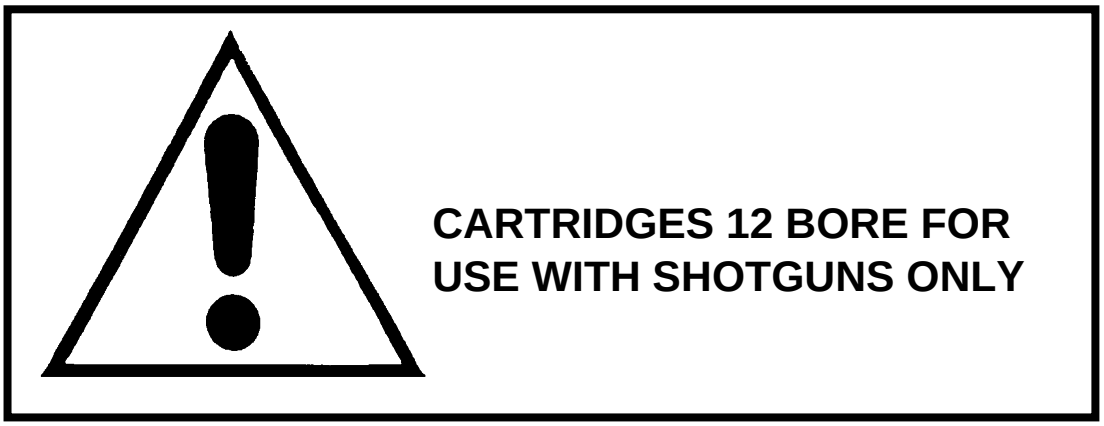

Fig 1 Warning Sign for 12 Bore Shot Gun Cartridges

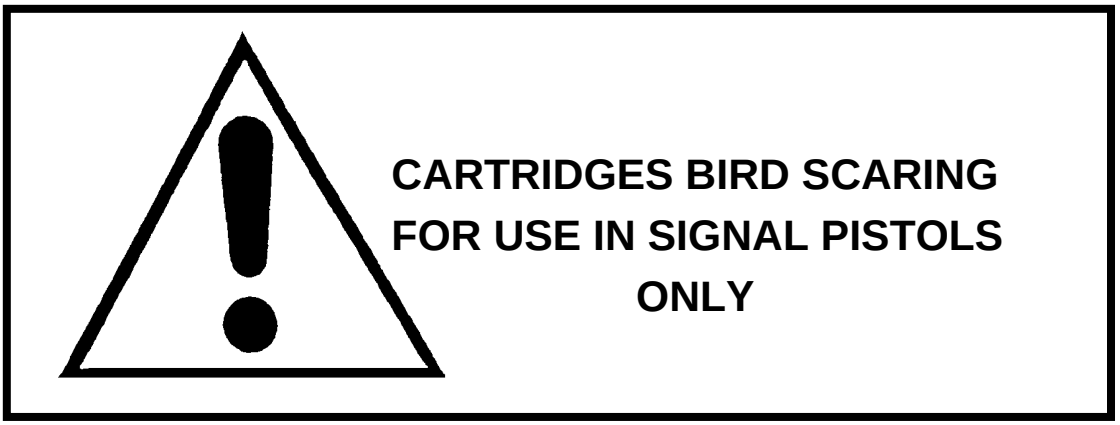

Fig 2 Warning Sign for Bird Scaring Cartridges

NOTE
The warning signs are to be painted to the general colour requirements for 'Warning Signs'.

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CHAPTER 10

SECTION 8

ANNEX E

MINOR PROCESSING FACILITIES

CONTENTS

1 MINOR PROCESSING FACILITIES

1.1 Introduction

1.1.1 Normally, all processing of explosives is carried out in a purpose-built Process Building, which conforms to the constructional and electrical requirements of Chapters 6 and 8. The following paragraphs provide information on Minor Process Buildings (MPB) and Minor Processing Areas (MPA) where authorised quantities of explosives can be processed, inspected and stored. These facilities are collectively identified in this annex as Minor Process Facilities (MPF).

1.2 Electro-Explosive Devices

1.2.1 Some items of equipment utilise small explosive charges to operate mechanisms. Examples are electro-explosive devices in Towed Radar Decoy (TRD) and Sidewinder Guidance and Control Unit (GCU). They have been classified as explosives by the DOSR and are to be treated in the same way for the purposes of this annex. The appropriate IE and DSA DOSR CIE (MOD) will jointly decide if a process task can be authorised to be carried out in a MPF.

2 NEQ LIMITS

2.1 HD 1.1

2.1.1 MPF are not normally to be licensed for HD 1.1

2.1.2 The maximum NEQ limits allowable for MPF licensed in accordance with this annex are:

HD/SsD	**1.1**	**1.2.2**	**1.3**	**1.4**
Minor Process Building (MPB)	NIL	Aggregated 10 kg		
Minor Process Area (MPA)	NIL	Aggregated to 10 kg		

2.2 Infra-Red Flares

2.2.1 Aircraft IR Countermeasure Flares are within the definition of Pyrotechnics. However, because of their susceptibility to RADHAZ and the extreme effects in the event of inadvertent initiation, they are NOT to be processed in facilities licensed in accordance with this annex.

3 MINOR PROCESS AREAS

3.1 General Requirements

3.1.1 Where there is a requirement to inspect and test weapon components that contain EEDs (e.g. TRD, Sidewinder GCU, etc), this work may be carried out in a licensed MPA within an unlicensed building or workshop. The MPA is licensed on MOD Form 1659 and must conform to the minimum constructional and electrical standards detailed below:

(1) The electrical category of the equipment within the MPA is to be in accordance with the requirements of Chapter 8.

(2) To prevent unauthorised access and distraction to the maintenance personnel a suitable barrier is to be erected around the MPA.

(3) If the MPA is to be used for the maintenance of weapon components that contain EEDs, an approved conductive floor and Hazardous Area Personnel Test Meter (HAPTM) are to be fitted.

(4) Concurrent electrical maintenance tasks on a weapon system or equipment are NOT permitted when carrying out continuity/resistance testing of an EED in the same area.

4 MINOR PROCESS BUILDINGS

4.1 General Requirements

4.1.1 MPB are to be licensed on MOD Form 1659 in accordance with Chapter 9 and are to meet the following criteria:

(1) The walls of the building, including any internal walls where the room forms part of another building, are to be of nominal 215 mm brick or 150 mm concrete or equivalent.

(2) If a compartment is used, access must only be possible from the outside of the building. There are to be no internal doors.

(3) Any window in an adjacent building that faces the MPB is to be fitted with glazing meeting the requirements of Chapter 6.

(4) The electrical installation is to be in accordance with the requirements of Chapter 8.

(5) Security requirements are to be in accordance with JSP 440.

(6) Fire Prevention and Fire Fighting requirements are to be agreed by the unit Senior Fire Officer/FFP.

4.1.2 Any risk to personnel is to be further reduced by the provision of a storage cupboard or cupboards within the building or compartment to separate the prepared and unprepared explosive stores into small quantities or aircraft sets. The cupboards are to be constructed to the requirements of Fig 1, below, and are to be fitted with 6 mm thick steel or 44 mm thick hardwood doors, which are to be positioned so that they do not open to face each other.

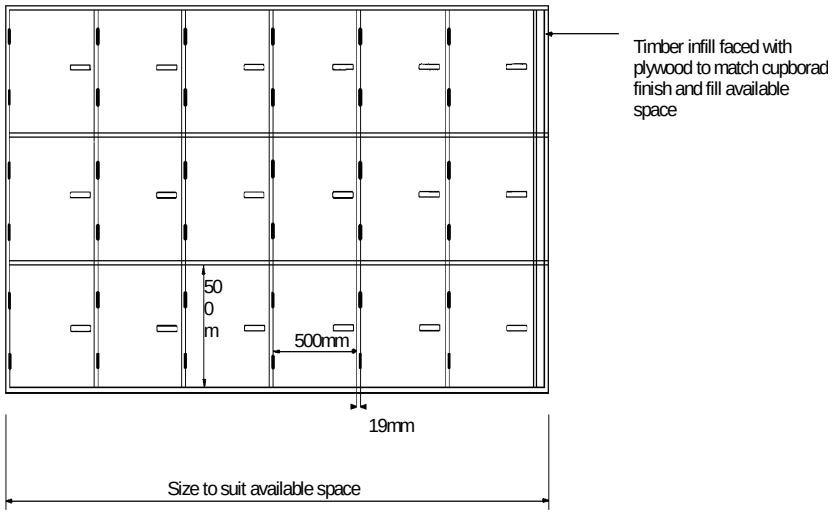

Fig 1 Storage Cupboads

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CHAPTER 10

SECTION 8

ANNEX F

MISCELLANEOUS FACILITIES

CONTENTS

1 MISCELLANEOUS FACILITIES

1.1 Introduction

1.1.1 This annex gives the criteria required for the storage of explosives not provided for elsewhere in this section of Chapter 10. All such facilities are to be licensed in accordance with Chapter 9, using MOD Form 1659.

2 PYROTECHNICS AND POWER CARTRIDGES

2.1 Details

2.1.1 Any suitable substantially constructed (i.e. brick, concrete or metal) weatherproof building or locker, which is acceptable to the unit Fire Officer/FFP and the unit Security Officer, may be licensed for the storage of small quantities of pyrotechnics and power cartridges under this annex. The building/locker is to be sited in accordance with the general guide-lines in Chapter 10, Section 8

2.1.2 To ensure stability and security, a locker, except when sited in a HAS, is to be bolted to a concrete base and an approved security lock is to be fitted. If located outside, a locker is to be weatherproof and provided with suitable protection to prevent rain entering when it is opened.

2.1.3 The NEQ of stored power cartridges / pyrotechnics is limited as follows:

HD/SsD	**1.1**	**1.2.2**	**1.3**	**1.4**
Externally Sited Storage Building/Locker	NIL	Aggregated 25 kg		
Internally Sited Storage Locker	NIL	Aggregated 10 kg		

3 DESIGNATED AREAS

3.1 Introduction

3.1.1 With the exception of Designated Areas for AAES (see Chapter 10 Section 8 Annex C where there is a requirement to have areas designated for the storage of explosives supporting a unit day to day activities, such areas are to be sited in accordance with the requirements of the paragraphs below. These Designated Areas are to be used exclusively for the storage of authorized explosives articles, and the IE is to stipulate on the MOD Form 1659 the types and quantities of explosives authorized.

3.1.2 Vehicles, including towed trolleys, etc, loaded with explosives are normally to be parked in accordance with Chapter 10, Section 3. However, when it is required to park vehicles loaded with explosives, which are directly supporting airfield operations and it is impractical to unload such vehicles, then parking areas are to be selected and identified for this purpose in accordance with Chapter 10, Section 5.

3.2 NEQ Limits

3.2.1 The maximum NEQ limits allowable for such designated areas are:

HD 1.1	**SsD 1.2.2**	**HD 1.3**	**HD 1.4**
NIL	Aggregated 10 kg		

3.3 General Requirements

3.3.1 Any suitable area in a Hangar or HAS, or adjacent to flight line operations, may be used provided that is acceptable to the IE, unit Fire Officer/FFP and unit Security Officer. If required, permanent structures may be erected to provide weatherproofing and security

3.3.2 A Designated Area is to comply with the following:

(1) It is to have its bounds clearly delineated on the ground (e.g. by painted markings).

(2) Barriers are to be provided to prevent casual access to non-entitled persons if the unit Explosives Safety Officer considers them necessary.

(3) Approval of the unit Security officer is to be obtained before explosives are left unattended.

(4) Fire and appropriate supplementary signs are to be clearly displayed when explosives are present.

4 EMERGENCY DOCUMENT DESTRUCTION KITS

4.1 Details

4.1.1 When required by an approved security destruction plan or OP Order, up to two Emergency Document Destruction Kits (EDKs) may be stored in a secure metal cabinet which is not to be used for storage of any other equipment. Normally, a maximum of four kits (i.e. two cabinets) is permitted in a building; requests for larger quantities are to be made to the responsible IE.

4.1.2 The cabinet(s) is to be sited away from escape routes. Except when operational exigencies dictate otherwise, storage in large open plan offices is to be avoided. The cabinet(s) and the building are to display the appropriate fire symbol. Additionally, any enhanced fire fighting training or fire precautions required by the unit Fire Officer/FFP are to be enforced.

4.1.3 Prior to storage, the EDK initiators[3] are to be removed, repackaged in approved packaging, marked, and sealed. The initiators may then be stored in the same cabinet as the main charges provided that they are not in close proximity to the main charges.

4.1.4 The main charges are to be sealed and then have a temporary label attached stating that the initiators have been removed. With the removal of the initiators, the main charges become a different class of Dangerous Goods, as they contain only Sodium Nitrate. This is an oxidizing agent and the unit must carry out the appropriate Control of Substances Hazardous to Health (COSHH) assessment. Unit Health and Safety Officers should be made aware of this requirement.

4.1.5 The initiators and main charges are to remain sealed unless used. Before transportation or return to store, the EDKs are to be reassembled and resealed in their approved packaging.

4.1.6 A notice encapsulating the above requirements is to be displayed in each cabinet.

[3] Handflares Pinpoint Red Mk6, HCC 1.3.4G, UN Ser No 0092.

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