

JSP 886
THE DEFENCE LOGISTICS SUPPORT CHAIN MANUAL

VOLUME 3
SUPPLY CHAIN MANAGEMENT

PART 5
PACKAGING FOR THE HANDLING, STORAGE AND
TRANSPORTATION OF MATERIEL



MINISTRY OF DEFENCE

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CHAPTER 1 - PACKAGING FOR THE HANDLING, STORAGE AND TRANSPORTATION OF MATERIEL

PURPOSE

1. This document defines the policies and processes for packaging two groupings of stores; materiel excluding munitions and munitions¹. Although there are common requirements such as environmental legislative conformance, there is a fundamental difference to packaging these two groups. Generally packaging for materiel excluding munitions is designed around the individual item. Packaging for munitions is based upon the use of standard containers with bespoke internal fitments. This is for ease of obtaining Dangerous Goods Certification and economy of reuse. This document covers all categories of packaging in defence giving particular consideration to each group where necessary, and amplifies on some of the processes of Defence Packaging where appropriate to the Support Chain.²

2. The aim of packaging in defence is to ensure that materiel is received safe and fit for purpose by the ultimate user by providing appropriate environmental and physical protection throughout the Support Chain. To accomplish this, consideration must be given to the storage, handling and transportation regimes which it is expected the materiel will be exposed to, and to the markings necessary to permit through life management. Consideration must also be given to national and international legislative requirements, and to ensuring the most economic packaging solutions consistent with these requirements are implemented. Packaging for munitions can also be used to help meet the Insensitive Munitions (IM) requirements and can play an important role in determining the life of the munition.

3. Defence Packaging Group (Def Pkg Gp), part of Defence Logistics Organisation (DLO) Technical Enabling Service (TES), is the Head of Specialisation and owner of Packaging and related Handling, Storage and Transportation policy for defence materiel. To fulfil its responsibilities, the Def Pkg Gp sets policy and regulation, provides expert advice and guidance, monitors the application of the policy and regulation and, where appropriate, provides scrutiny of supporting documentation to Business Cases submitted to the Investment Appraisal Board. It has responsibility for all stores and materiel including complete equipments and assemblies excluding Rations, Medical Supplies and Fuels and Lubricants (F&L). (Responsibility for packaging of these groups is under review as a result of DLO Restructuring). The Roles and Responsibilities of the Def Pkg Gp are given in Annex A.

OWNERSHIP AND POINTS OF CONTACT

4. The policy, processes and procedures described in the Defence Logistics Support Chain Manual (JSP 886) are owned by Director Joint Support Chain (D-JSC). Head Supply Chain Management (SCM-Hd) is responsible for the management of JSC policy on behalf of D JSC.

¹ Excluding Rations, Medical Supplies and Fuels, Lubricants and Industrial Gases.

² For FLEET this includes all Royal Navy and Royal Fleet Auxiliary Units.

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5. This instruction is sponsored by DES JSC TLS-Pol-Pkg who should be approached in case of technical enquiries about the content:

DES JSC TLS Pol-Pkg Pol Muns 1,
Room S11/1/20, Fort Halstead, Sevenoaks, Kent TN4 7BP
Tel: Mil: 96802 7033 Civ: 01959 897033
Email: DESJSCTLS-Pol-PkgPolMuns1@mod.uk

6. Enquiries concerning the accessibility and presentation of this instruction should be addressed to:

DES SCM-PolComp-JSP886 Editorial Team
Cedar 2b, #3246, MOD Abbey Wood, BRISTOL, BS 34 8JH
Tel: Mil: 9679 80953. Civ: 03067 980953
Email: DESSCM-PolComp-JSP886@mod.uk

GLOSSARY

7. A glossary of Support Chain terms is available in JSP 886 Volume 1 Part 1A.

LINKED PUBLICATIONS

8. The following publications are linked to this instruction:

DEFCON 129	Packaging (For Articles Other Than Ammunition And Explosives).
DEFFORM 96	Coding Sheet for Procurement Documentation.
DEFFORM 129A	Application for Packaging Designs and Authorisation for Package Design Work.
Def Stan 00-35	Environmental Handbook for Defence Materiel.
Def Stan 00-60	Integrated Logistic Support.
Def Stan 08-8	Packaging of Ammunition and Explosives.
Def Stan 08-10	Marking of Ammunition and Associated Packages (21 Parts).
Def Stan 08-14	Ammunition Unit Loads for Military Use.
Def Stan 13-98	Requirements for the Provision of General Munitions Technical Data for Minor Projects.
Def Stan 81-41	Packaging of Defence Materiel.
D Pkg A DR1	Index of D Pkg A Maintained Packaging Specifications.
D Pkg A DR14 (Part 1)	Military Packaging Capability Accreditation Scheme.
D Pkg A DR14 (Part 2)	Index of Accredited Package Design and Military Packaging Contractors.
Explosive Storage and Transport Committee (ESTC) Standard No. 8	Advice on Regulatory Requirements for the Packaging of Military Explosives.
ISPM-15	International Standard for Phytosanitary Measures-15.
JSP 886 Volume 2 Part 4	NATO Codification in the UK.
JSP 886 Volume 3 Part 6	Equipment for the Handling, Storage and Transportation of Materiel.

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JSP 886 Volume 9	Disposals.
JSP 379	The Packers Handbook.
JSP 418	Sustainable Development and Environment Manual.
JSP 422	Tri-Service Ammunition Packaging, Configuration and Statistical Data.
JSP 445	Transport of Dangerous Goods by Road, Rail and Sea.
JSP 472	Resource Accounting Policy Manual.
JSP 482	MOD Explosives Regulations.
JSP 762	Munitions Life Assessment.
Def Pkg Form G833	Packaging Defect Report.
MOD Form 650a	Contractors Advice of Equipment Scrapped on Site or Lost in Shops.
PE(SA) 651	Notifications of Government Owned Equipment Rejected or Lost after Issue.
STANAG 2828	Military Pallets, Packages and Containers.
The Montreal Protocol	(Issued by the United Nations Committee of Experts on the Transport of Dangerous Goods).
The Recommendations on the Transport of Dangerous Goods	
International Air Transport Association Regulations (IATA)	
International Maritime Dangerous Goods Code (IMDG)	
Producer Responsibility Obligations (Packaging Waste) Regulations (SI 1997, No 648) (as amended)	
Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2005	
Insensitive Munitions Implementation Strategy (IMIS) Desk-Level Guidance for Acquisition Staffs (Version 5)	

SUPERSEDED PUBLICATIONS

9. The following publications are superseded by this instruction:

JSP 336 (2 nd Edition) Pamphlet 10	Defence Supply Manual – Packaging.
JSP 336 Volume 11, Part 8, Chapter 3, Annex 3.4	Trade Packages.
JSP 336 Volume 11 Part 8, Chapter 19, Annex 19.3	Defect Report – Forms Discrepancy Report (RN) – S1122.
JSP 336 Volume 12, Part 1, Pam 1-1, Section 25 Paragraphs 2503-2507 and Annex A	Reporting of Equipment Failures, Packaging Defects and Defective Clothing.
JSP 336 Volume 12, Part 1, Pamphlet 1-1, Section 26	Packaging.
JSP 336 Volume 13 Leaflet MM 196	Packaging of RAF Material – Organisation and Administration.
JSP 336 Volume 13 Leaflet C9/2	Packaging Policy, Organisation, Standards

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JSP 336 Volume 13 Leaflet UT 7/2

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and Packing of Equipment.
Defective Packaging of Equipment –
Reporting Procedures.

ANNEX A - ROLES AND RESPONSIBILITIES OF THE DEFENCE PACKAGING GROUP

(Introduced at Paragraph 2)

1. Packaging can be truly considered a through life function. Control of policy and processes to ensure packaging in defence is fit for purpose is vested in TES Def Pkg Gp. To fulfil this responsibility Def Pkg Gp carries out a number of processes. These are given below so that the reader may understand the full scope of activities that support packaging in defence.

POLICY AND STANDARDS

2. The Def Pkg Gp sets and develops policy within its sphere of responsibility to:

a. Support the Logistic Policy and Process Framework, Support Solutions Envelope and Acquisition Management System (AMS).

b. Define and mandate, as the owner of the acquisition processes relevant to Defence Packaging, best practice across Defence.

c. Ensure that all necessary contractual conditions and standards are available to support good acquisition practices.

d. Ensure that the necessary regulation and guidance is available to ensure good practice throughout the Support Chain.

e. Ensure compliance with existing and consideration of evolving legislative requirements.

3. Def Pkg Gp provides technical support to the ESTC in respect of the development and setting of MOD policy and standards for the packaging of dangerous goods, most notably explosives.

SUPPORT TO STANDARDS PREPARATION

4. To maintain its specialist skills and to ensure Defence needs are met the Def Pkg Gp:

a. Maintains a team skilled in the preparation and management of Defence Standards (Def Stans) concerning all aspects of packaging.

b. Contributes to the development of national and international standards within its sphere of expertise including Def Stans, British Standards, Euronorms (ENs), International Standards Organisation (ISO) Standards and STANAG's, representing Defence and national interests as appropriate.

c. Provide Technical Adviser (Packaging) (TA(Pkg)) to ESTC.

COMPETENCES, AWARENESS AND TRAINING

a. To ensure the appropriate skills are available when needed in MOD to enable compliance with packaging policies and standards, the Def Pkg Gp:

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- b. Develops and owns the Functional Competences necessary to perform the packaging process.
- c. Promotes awareness of the packaging function by the management and delivery of focussed training and other means to reduce risk in acquisition and Support Chain activities.

REGULATION AND COMPLIANCE

- 5. To provide assurance of good practice and compliance with set policies and standards, the Def Pkg Gp:
 - a. Monitors and regulates compliance within the supplier base.
 - b. Monitors and advises on compliance within the Support Chain and Integrated Project Teams (IPT).
 - c. Contributes to the Defence Procurement Agency (DPA) Project Review and Assurance (PR&A) process appearing on the Dashboard under Joint Supply Chain.

ADVICE AND GUIDANCE

- 6. To support the proper compliance with and application of the acquisition and Support Chain policies and standards, the Def Pkg Gp provides an advice, guidance and technical consultancy service to IPTs, policy branches, Supply Chain specialists, and Front Line Commands (FLCs). This service covers a range of specialist areas including:
 - a. The application of packaging policy, standards and contract conditions.
 - b. The review of contractor or tender proposals for Packaging, Handling, Storage and Transport (PHS&T) including PHS&T Plans and Statements of Requirement (SOR).
 - c. The setting of packaging levels and Primary Packaging Quantities (PPQ).
 - d. The application of legislative requirements.
 - e. The selection of specialist packaging contractors identified through the Military Packaging Capability Accreditation Scheme (MPCAS).
 - f. The review of industry proposals for new or innovative materials and processes.
 - g. The investigation of defective packaging and instances of poor practice.
 - h. The installation of storage media and mechanical handling equipment, (see JSP 886 Volume 3 Part 6 for full policy and processes).
 - i. The design, testing and approval of Unit Load Devices (see JSP 886 Volume 3 Part 4 Pamphlet 2 Chapter 2).
 - j. In the area of environmental assessment of both packaging and equipment, the setting of requirements, evaluation of proposals, trials attendance and monitoring on behalf of IPTs and advice on verification of compliance.

CHAPTER 2 - PROCESSES CARRIED OUT BY THE DEFENCE PACKAGING GROUP

INTRODUCTION

1. An outline of the roles and responsibilities of the Defence Packaging Group (Def Pkg Gp) is given in Annex A to Section 1. Under that umbrella the Def Pkg Gp sets policy and carries out a number of specific processes of relevance to the Support Chain. These are given in greater detail below.

CONTRACTS

2. When packaging forms part of an order:
 - a. DEFCON 129 – 'Packaging, for Articles other than Ammunition and Explosives' shall be made a condition of contract. This informs the contractor of the Department's packaging requirements;
 - b. The Def Pkg Gp shall be nominated and identified in the contracts as the Packaging Authority.

SUPPLY OF PACKAGING DESIGN VIA DEFFORM 129A

3. The Def Pkg Gp holds a library of packaging designs and information, predominantly for stores other than munitions. On receipt of an application via DEFFORM 129A Def Pkg Gp shall supply a copy of the standard packaging requirements or current design as applicable for the specified item. The latter is updated to account for any changes to legislation or policy since last issue. This service is available to both MOD and Industry.
4. Ownership of Intellectual Property Rights (IPR) for a military packaging design and the extent to which the Authority may use that design is dependent on the contract terms under which the design was developed. For all packaging contracts for which DEFCON 129 is a condition, it is a requirement that the contractor furnish the MOD Packaging Authority with a secondary master of any package designs produced. Revised, joint-service procedures for the storage and custodianship are in the course of preparation for inclusion in the Defence Logistics Support Chain Manual (JSP 886). In all cases, when a packaging design is developed, consideration should be given to acquisition of the associated IPR or the right to have that design reproduced.

SETTING OF PACKAGING LEVELS AND PRIMARY PACKAGING QUANTITIES

5. The Def Pkg Gp reviews the Packaging Levels and Primary Packaging Quantities (PPQ) of current inventory items or sets requirements for new items to service. This ensures the application of current policies and legislation to packaging requirements, ensuring that the most cost effective packaging consistent with legislative requirements and giving confidence that materiel arrives at point of use fit for purpose, is specified.

PACKAGING FUNCTIONAL COMPETENCES AND SUPPORTING TRAINING

6. In recognition of the unique activities associated with defence packaging, Packaging Functional Competences have been included in the Acquisition Management System (AMS). To support these Competences the Def Pkg Gp make available to both MOD and Industry a number of training courses. These may be found on the Def Pkg website¹. In

addition, bespoke courses are developed to meet the identified requirements of Front Line Commands (FLC) and others.

THE PACKERS HANDBOOK

7. The Def Pkg Gp has ownership of JSP 379, 'The Packers Handbook' which supports members of the FLCs. The aim of this publication is to provide a guide to the essential principals of packaging to enable non-specialist personnel to successfully prepare items for transit and/or temporary storage. Copies of this document are available from the Defence Storage and Distribution Centre (DSDC) Llangennech, or from the Defence Packaging website¹.

SELECTION OF PACKAGING MATERIALS

8. The Def Pkg Gp evaluates new/innovative packaging materials and processes to determine their suitability for Military Packaging applications. The results of these investigations are published in the Packaging Bulletin issued by the Def Pkg Gp. A compendium of codified materials and equipments currently available to the Services, the 'Packaging Materials and Associated Equipment Catalogue' can be found on the Defence Packaging website¹. When selecting new materials, ie, those not in the compendium, the Def Pkg Gp should always be consulted to establish suitability and should be consulted on new use or new kit packaging.

CONSULTATION WITH KEY STAKEHOLDERS

9. The Def Pkg Gp maintains two Stakeholder/Steering Groups, which in addition to their stated purpose provide a forum for the exchange of views. These are the Defence Packaging Stakeholder Group (DPSG) and the Munitions Packaging Steering Group (MPSG). These consider topics particular to each category and across the board issues which affect both. The Terms of Reference and Membership of the DPSG and MPSG are given in Annexes A and B to this Section respectively.

¹ www.defpkg.dii.r.mil.uk (under construction)

ANNEX A - TERMS OF REFERENCE AND MEMBERSHIP OF THE DEFENCE PACKAGING STAKEHOLDER GROUP

(Introduced at Paragraph 9)

MEMBERSHIP

1. The Defence Packaging Stakeholder Group (DPSG) is to comprise of representatives from the following areas:

Chair	Def Pkg Gp Con & Env
Members	TES Def Pkg FF1 Bath
	TES Def Pkg Conv 1
	DSDC Bicester
	DSDC(N) Donnington
	DARA Sealand
	DGS – CMT Bath Foxhill
	ABRO Donnington
	SC Pol (SS) DLO Andover
	SO2 Log Sup (Mat) HQ Land Wilton
	HQSTC Supply Chain Management RAF High Wycombe
	EP Pol 2 Bath Ensleigh
	D Logistics – IPT Support (Land) Andover
	GS IPT GAMA
	DGM5c Bath
	DCG Bath
	DLTP RAF Wyton
	TSM Supt (NS) Devonport NB
MXS SIM IPT Abbey Wood	
DFG West Moors	
HQ DSDA Bicester	
Secretary	TES Def Pkg FF2b

MISSION STATEMENT

2. To provide a forum for the guidance and resolution of all packaging-related problems.

TERMS OF REFERENCE

3. To create and sustain commonality of packaging practice pan-MOD.
4. To communicate policy and procedural changes.
5. To consider any innovations related to packaging.
6. To manage and report on any activity arising from paragraph 5.
7. To meet twice a year.

ANNEX B - TERMS OF REFERENCE AND MEMBERSHIP OF THE MUNITIONS PACKAGING STEERING GROUP

(Introduced at Paragraph 9)

MEMBERSHIP

1. The Munitions Packaging Steering Group (MPSG) is to be comprised of representatives from the following areas:

Chair	Hd of Munitions Def Pkg Gp
Members	Hd Whole Life Assessment MCBU Torpedoes IPT SMS IPT GWSS IPT DGM IPT ALM IPT DM DSDA FAWS IPT Def Pkg Gp DOSGTS2 TA(Pkg) to ESTC DM Op & C1e Def Pkg Gp/MCBU Liaison
Secretary	Def Pkg Gp

Note: Other members may be co-opted as and when required.

AIM

2. The aim of the MPSG is to direct munitions packaging activity across the defence munitions business area and, where appropriate, to provide support/guidance to the DPA munitions business.
3. The MPSG is to identify and pursue best practice across defence and to co-ordinate activity in order that support to customers is delivered with ever increasing economy, efficiency and effectiveness.

OBJECTIVES

4. Within the boundaries of over-arching policies and initiatives, and without detriment to output to customers, the MPSG is to act freely in pursuit of its purpose and is not to be constrained by any narrow interpretation of the content/structure of its TORs.
5. As a minimum, the MPSG is to:
 - a. Act as the co-ordinating body on the practical implementation and review of munitions packaging and palletisation policy.
 - b. Review and implement all legislation affecting defence munitions packaging.
 - c. Review the policy for the design of munitions packaging and palletisation with respect to Safety, Technology, Materials and Production to meet all logistic aspects.

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- d. Formulate and maintain defence publications relating to munitions packaging.
- e. Formulate munitions packaging training policy and maintain arrangements necessary for the training of personnel.
- f. Promote commonality of munitions packaging across the MOD.
- g. Promote awareness of the latest munitions packaging requirements and disseminate the information across the MOD.
- h. Provide an annual report to the DLO Munitions Management Board (MMB) detailing ammunition packaging activity and reflecting progress (or otherwise) in identifying economy, efficiency and effectiveness within, and across, the defence munitions business.

MODUS OPERANDI

- 6. The MPSG is to operate the principles, under which the Chair is to have a casting vote should consensus not be achieved.
- 7. Working Groups are only to be formed in exceptional circumstances where the DLO CTS (Def Pkg HoS) or Munitions Corporate Business Unit (MCBU) are not able to act in an executive capacity in taking forward MPSG recommendations or DLO MMB direction.
- 8. Meetings are to be held at 6 monthly intervals or more frequently should working milestones dictate.
- 9. Verbatim minutes are not to be maintained, but records of decisions and actions agreed are to be circulated to all members and to the DLO MMB within 5 working days of each meeting.

REPORTING AND ACCOUNTABILITY

- 10. The MPSG is to report to, and be directly accountable to, the DLO MMB.

TOR REVIEW

- 11. The MPSG is to conduct a formal review of its TORs every 2 years and, where appropriate, recommend necessary changes to the DLO MMB.
- 12. More frequent reviews may be directed by the Chair as required.

CHAPTER 3 - PROCESSES COMMON TO ALL PACKAGING IN MOD

INTRODUCTION

1. This Section deals with policies and processes which are applicable to all packaging used in MOD¹. The following Sections deal respectively with packaging of materiel excluding munitions stores (Section 4) and packaging of munitions stores (Section 5).

INTEGRATED LOGISTICS SUPPORT (ILS) PLAN

2. For both materiel excluding munitions and munitions (including inert stores, major assemblies and sub-assemblies) packaging requirements and packaging levels shall be specified in the context of the overall Packaging, Handling, Storage and Transportation (PHS&T) Plan conducted as part of the ILS procedure in accordance with Def Stan 00-60. For commodities and other sub-assemblies where a full ILS assessment is not appropriate, the underlying principles still apply. In all cases, the standard of packaging specified should meet the overall material handling, storage and transportation requirement in the most cost-effective manner.

ACCOUNTING

3. **Domestic Management Code.** When any packaging is codified the Domestic Management Code (DMC) for the store shall be adopted.

4. **Materiel Excluding Munitions Packaging.** Where the IPT Leader, Equipment or Commodity Manager deems packaging reusable on whatever grounds, it shall be accounted for in accordance with current Defence Logistics Support Chain Manual (JSP 886) requirements. In accordance with the principles of the single Defence inventory, all Special to Type Containers (STC) containers shall be codified, see Annex A to Section 4 for further information regarding STC containers.

5. **Munitions Packaging.** The vast majority of munitions packaging is reusable and shall be refurbished whenever practicable. It shall be accounted for in accordance with current JSP 886 requirements. Reusable packaging shall be codified in accordance with the principles of JSP 886. All packaging shall be uniquely identified with a model number. A revised, joint service procedure for model numbering is in the course of preparation for publication in Defence Logistics Support Chain Manual, JSP 886.

DISPOSAL

6. **Disposal Requirements.** When any packaging is disposed of the applicable requirements of JSP 886 Volume 9 shall be followed. For the two groupings of packaging described in this document the following requirements also apply.

7. **Materiel Excluding Munitions Packaging.** This shall conform to the requirements of Def Stan 81-41 and environmental legislation (ie The Producer Responsibility Obligations (Packaging Waste) Regulations 1997) with respect to re-use and/or recovery and to minimize the impact of packaging waste on the environment.

8. **Munitions Packaging.** All containers are to be refurbished wherever possible.

¹ Excludes Rations, Medical Supplies and Fuels, Lubricants and Industrial Gases.

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Containers deemed to be beyond economic repair shall be disposed of in agreement with the IPT using MOD Form 650a and PE(SA)651.¹

DEFECT REPORTING

9. When packaging is identified or suspected as the cause, or a contributory factor, of an item of supply not being fit for its intended use, the consignee shall raise the appropriate Report.

10. **Materiel Excluding Munitions Packaging.** The consignee shall raise a Packaging Defect Report (PDR) using Def Pkg Form G833. The procedure for reporting defects for which packaging is identified or suspected as a contributory factor is given at Annex A to this Section. The Defence Packaging Group (Def Pkg Gp) collates the information from the Reports and consequently amends policies and procedures as necessary.

11. **Munitions Packaging.** The consignee shall raise an Explosives Faults and Performance Failure Report as given in JSP 482, Volume 1, Chapter 27. The Def Pkg Gp will raise faults where necessary at the Munitions Packaging Steering Group (MPSG).

HEALTH, SAFETY AND ENVIRONMENTAL LEGISLATION

12. At all stages of the Defence Support Chain, from specification and design through to final disposal, the selection, use and disposal of packaging shall comply with the current national and relevant international health, safety and environmental legislation. Further information can be found in JSP 418 Volume 2 Leaflet 12.

DANGEROUS GOODS

13. The packaging, marking and transport of Dangerous Goods within MOD shall be carried out in accordance with JSP 445.

14. There are a number of international agreements covering the packaging of Dangerous Goods for shipment by the various modes of transport. UK Legislation invokes packaging procedures contained in the Recommendations on the Transport of Dangerous Goods issued by the UN Committee of Experts on the Transport of Dangerous Goods. This is commonly referred to as the 'Orange Book'. Because it is not possible to predict the mode of transport that will be used for Dangerous Goods with certainty, it is MOD policy that Dangerous Goods shall be packaged to the highest standard, whichever that may be. Employing packaging conforming to the most stringent requirements means:

- a. No delay while appropriate packaging for another mode of transport is procured;
- b. No additional cost of procuring and applying appropriate packaging;
- c. No opportunity for potential embarrassment to MOD if illegal packaging should be used and/or an accident attributable to its use occurs.

15. Whenever consideration is given to the transportation of Dangerous Goods other than Class 1 Explosives, the use of Limited Quantities and similar exceptions should be considered, particularly when setting the Primary Packaging Quantities (PPQ).

¹ To support disposal of munitions the Def Pkg Gp makes available two databases: the Ammunition Database Document Image Storage System (ADDISS) and the Hazardous Ammunition Database Document Image Storage System (HADDISS), containing variously H&S and Chemicals (Hazardous Information and Packaging for Supply) Regulations (ChiP) information.

ISPM-15 REQUIREMENTS FOR IMPORT / EXPORT USING WOOD PACKAGING MATERIALS

16. Countries such as the USA and Australia have always had particular requirements concerning the import of plant/wood-based packaging materials. The concern stems around infestation from pests such as insects and nematodes.

17. To reduce the risk of these pests being spread, the National Plant Protection Organisations (NAPPO) are adopting policy to implement ISPM-15 on wood packaging material (WPM) made of unprocessed raw wood. This will lead to strict enforcement of ISPM-15 on WPM and dunnage. The date for implementation varies from country to country. The web site for the Forestry Commission www.forestry.gov.uk/planthealth_has regular updates.

18. Packaging for import/export to the European Union, the United States of America, Canada, New Zealand and any other country invoking ISPM-15 must use wood treated by one of the processes approved in that document. They are:

- a. Heat treatment to a minimum core temperature of 56°C for at least 30 minutes;
- b. Fumigation with Methyl Bromide.

Note: due to Health and Safety concerns, the Directorate of Safety and Claims has stated that MOD personnel shall not fumigate WPM or dunnage with Methyl Bromide. Furthermore, it should not be specified in contracts, due to its effect on the environment (see The Montreal Protocol).

19. In due course other fumigation treatments and processes may be agreed. When they are, they will be notified by the Def Pkg Gp through its usual communication channels.

20. All treated wood must be marked in accordance with the UK Wood Packaging Material Marking Programme. This includes wood/timber-based dunnage.

21. Further MOD policy on the implementation of ISPM-15 is given by Director Defence Logistics Operations and the Def Pkg Gp.³

² MOD_POLCTS_LOGOPS_MOV_BEC_ISPM15, 'Policy on the Implementation of ISPM-15 Standard on Wood Packaging Material across Defence – Legacy Stocks'

³ Defence Packaging Policy No. 01/04 'Interim Policy on compliance of Wood Packaging Material with ISPM-15'

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ANNEX A - PROCEDURE FOR REPORTING DEFECTIVE PACKAGING OF MATERIEL EXCLUDING MUNITIONS STORES

(Introduced at Paragraph 10)

1. When packaging of any category is identified or suspected as the cause, or a contributory factor, of a non munitions item of supply not being fit for its intended use, the consignee is to raise a Packaging Defect Report (PDR) G833 (See Appendix 1). Similarly when an item being backloaded for repair sustains (or may have) further damage, or was exposed to unnecessary risk due to inadequate or defective packaging, a PDR shall be raised against the consigning unit/organisation concerned. A PDR should also be raised to notify any cases of over elaborate packaging.

2. PDR procedures should also be initiated to notify receipt of poorly aggregated packages, crates, etc. Where the packaging of individual items within such packs is deemed adequate, but damage was or could have been sustained because of poor aggregation methods, this should be indicated in the PDR.

3. The PDR form provides the user with a simple method of recording the details of the item of supply concerned together with the type of defect. It is essential that as much information as possible is provided on the form. In addition, and where practicable, the original manufacturer's/packer's labels are to be removed from the packaging and forwarded with the consignor's copy of the PDR. Similarly photographs showing the damage/defect would greatly assist the consignor in their investigations.

4. Once completed the PDR shall be distributed in accordance with the details given in the table below.

Serial (a)	Type of stores/consignor (b)	Distribution of G833 (c)
1	Navy, Army and RAF Supply Chain Materiel (less Serials 6 and 7)	3 Copies to be raised: 1. Consignor 2. Def Pkg Gp HQ - Fort Halstead 3. Unit Copy
2	RE materiel	5 Copies to be raised: 1. Consignor 2. Formation HQ (Log Sp) 3. DSDA Ops Centre (RE Cell) 4. Def Pkg Gp HQ - Fort Halstead 5. Unit Copy
3	Medical supplied materiel	4 Copies to be raised: 1. Consignor 2. Medical Supplies IPT 3. Def Pkg Gp HQ - Fort Halstead 4. Unit Copy
4	Repair Agencies	4 Copies to be raised: 1. Consignor 2. Formation HQ (Log Sp) - where applicable 3. Def Pkg Gp HQ - Fort Halstead 4. Unit Copy
5	User units	4 Copies to be raised: 1. Consigning Unit 2. Formation HQ (Log Sp) - where applicable 3. Def Pkg Gp HQ - Fort Halstead 4. Unit Copy
6	Rations	4 Copies to be raised: 1. DG Log (Fleet)

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		<ol style="list-style-type: none">2. Defence Catering Group DLO Andover3. Def Pkg Gp – Fort Halstead4. Unit Copy
7	Packed Fuel and Lubricants	4 Copies to be raised: <ol style="list-style-type: none">1. Consignor2. Defence Fuels Group3. Def Pkg Gp HQ - Fort Halstead4. Unit Copy
8	Contractors (Trade receipts)	4 Copies to be raised: <ol style="list-style-type: none">1. Consignor2. Def Pkg Gp HQ - Fort Halstead3. Relevant IPT4. Unit Copy

INVESTIGATION OF A PDR

5. The purpose of the PDR system is to enable all necessary action to be taken to prevent or reduce the likelihood of similar problems recurring. A PDR alerts the consignor of the equipment to investigate the claims of the consignee and if necessary to check the remaining stock.

6. Should the consignor find, during its investigation, that the reported defect is due to poor package design, it should contact the Def Pkg Gp HQ at Fort Halstead for assistance.

REPORTING OF FINDINGS

7. On completion of the investigation the consignor shall inform the originator of the PDR and the Def Pkg Gp HQ of their findings. The Def Pkg Gp is located at:

Building S11
Fort Halstead
SEVENOAKS
Kent TN14 7BP

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**APPENDIX 1 TO ANNEX A - PACKAGING DEFECT REPORT FORM DEF PKG G833
 (TO BE USED FOR MATERIEL EXCLUDING MUNITIONS ONLY)**

Packaging Defect Report

Def Pkg Form G833

To be completed in accordance with JSP 886, Volume 3 Part 5 Section 3 for materiel excluding munitions

(Revised 6/05)
DRAFT

To:	From:
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■ Unit Ident. No (UIN).	■ Ref No/Defect Report No.	■ Date Raised

•1. (a) Full 13 Digit NSN.	(b) Item Name	(c) Quantity in consignment

•2. No. of Packages defective/damaged* is		out of a total		rec'd
•3. No. of Items Damaged is		out of a total		rec'd
•4. Place of inspection or Consignee	•5 (a) Date Stores Received			

	(b) Date Defect Discovered
	(c) MOD Form 445
	Date:

•6. Issuing Depot or Consignor

•7. Issue Voucher No or Control No and Date	•8. FSO No (for Overseas Consignees)

•9. Give all available packer's details (date, by whom packed, Contract No, Inspector's Stamp, or Ref No, etc)

•10. Packaging Level/Code (as shown on packaging):	
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•11. **Brief details of packaging**, e.g., preservative, primary wrap, inner container, cushioning, waterproof or water vapour barrier, outer container, marking, strapping.

•12. **Nature and description of defect**
 (attach photograph or dimensional sketch whenever possible)

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•13. Probable cause of defect
(give full details)

•14. Observations and suggested remedy
(attach sketch if possible)

Name (block capitals)	Signature
Telephone Number:	
	Date:

CHAPTER 4 - POLICIES AND PROCESSES APPLICABLE TO MATERIEL EXCLUDING MUNITIONS PACKAGING IN MOD

INTRODUCTION

1. Packaging for materiel excluding munitions can be considered as falling into five categories, viz Commercial, Military, Special (Code H), Dangerous Goods and Special to Type Containers (STC).

COMMERCIAL PACKAGING

2. When the use of commercial packaging has been called up in the contract the supplier shall ensure that the most cost effective methods and materials shall be used in order to meet the requirements. Note: commercial packaging is regarded as being suitable for one trip from the supplier to the consignee only, and as having no capability for preservation of the item in long term storage.

MILITARY LEVEL PACKAGING

3. Packaging shall be designed and manufactured in compliance with Def Stan 81-41 in order to meet the requirements of Military Level Packaging (MLP). This Standard contains a glossary of packaging terms, sets out general service requirements, defines technical methods of meeting them, provides package testing methods¹ and prescribes documentation, including all labelling² requirements of military package design. Design and manufacture shall be undertaken by a contractor, or sub-contractor, who is registered in the Defence Packaging Group's (Def Pkg Gp) Military Packaging Capability Accreditation Scheme (MPCAS), or who is able to demonstrate that his quality assurance arrangements and military package design expertise are of an equivalent standard. Details of the MPCAS are published in D Pkg A/DR-14 (Part 1) 'Military Packaging Capability Accreditation Scheme' and companies which have been granted Accreditation are listed in D Pkg A/DR-14 (Part 2) 'Accredited Package Design and Military Packaging Contractors'.³

4. Standard Family Specifications (SFSs) have been prepared for a number of groups or 'families' of differing materiel which can be regarded for packaging purposes as identical or which can be given the same technical treatment because they differ only in regard to such features as dimensions. Packaging to a SFS complies with Def Stan 81-41 and, unless otherwise stated, obviates the need to prepare a new package design. SFSs are listed in D Pkg A/DR-1 'Index of D Pkg A Maintained Packaging Specifications'.³

5. Where a military level of packaging is required, only current levels J, N and P (comparable to NATO levels 2, 3 and 4) are to be specified. On no account are obsolescent military standards and levels to be specified for new requirements.

¹ Package testing is also described in Def Stan 00-35.

² Labelling requirements for packaging interface with the requirements imposed by Consignment Tracking, see the Defence Logistics Support Chain Manual (JSP 886) Volume 3 Part 7 for full details.

³ These documents may be found on the Def Pkg website, address www.defpkg.dii.r.mil.uk (under construction).

SPECIAL (CODE H) DESIGNATED PACKAGING

6. Packages which require the degree of protection afforded by MLP but for which the standard levels are not applicable shall be designated Code H. The same principles apply to Code H packaging which shall be designed, verified and manufactured in accordance with Def Stan 81-41. However, the requirements of the packaging shall be detailed in the contract, together with the appropriate test schedule.

DANGEROUS GOODS ITEMS

7. When the items being packaged are designated Dangerous Goods, excluding explosives, the packaging shall comply with the requirements of Section 3, Paragraphs 13-15 in addition to all others deemed appropriate.

SPECIAL TO CONTENTS CONTAINERS

8. A Special to Contents (STC) Container is a uniquely configured container designed for multiple journeys whilst supporting and protecting its prescribed contents during handling, storage and transportation throughout the Support Chain. An STC container is a codified item whose value may exceed that of the contents. The detailed policy and processes for STC containers are given in Annex A to this Section.

PACKAGING CODES

9. Packaging codes used throughout the various stores systems are defined in DEFFORM 96. Platform specific codes shall not to be raised.

ANNEX A - POLICIES AND PROCESSES APPLICABLE TO STC CONTAINERS

APPLICABILITY

1. This policy applies to those containers that are required to protect Defence Materiel through the Support Chain including repair and return loops.
2. It is recommended that these policies and processes should also be applied to those containers that in the past have been marked with double yellow bands or the term 're-useable' applied. Such containers should also satisfy the definition below. The Integrated Project Team (IPT) Leader, Equipment or Inventory Manager should take a view of the costs associated with managing STC containers against the risk of non-availability of containers at critical times.

DEFINITION

3. An STC container is defined as a uniquely configured container designed for multiple journeys whilst supporting and protecting its prescribed contents during handling, storage and transportation throughout the Support Chain. The container shall protect personnel and equipment from any hazardous contents.

INTRODUCTION INTO SERVICE

4. The introduction into service of an STC container is the responsibility of the IPT Leader, Equipment or Inventory Manager.
5. The requirement for an STC container should be identified and addressed during the Integrated Logistic Support (ILS) Logistic Support Analysis (LSA) process and should be documented in the LSA Record (LSAR).
6. Where a requirement for an STC container is being considered, the advice of the Def Pkg Gp shall be sought.
7. The design and manufacture process should aim to produce a durable STC container. Where it is not practicable to assume that an STC container will last the life of its prescribed contents, measures are to be put in place by the IPT to ensure the STC container is available at all times.
8. All drawings for the container shall carry a Service Drawing Number in addition to any numbers used by the designer. The Service Drawing Number shall be issued by the Def Pkg Gp. To obtain a number, contact Def Pkg Conv2: Tel GTN: 96802 7046, BT: 01959 897046, e-mail tatam.p@dpkg.mod.uk.
9. The maintenance and repair of the main equipment may require that the Support Chain includes commercial organisations. The management controls required for the accounting and traceability of STC containers are the same as those applied to its prescribed contents.

MANAGEMENT

10. The management of STC containers is the responsibility of the IPT Leader, Equipment or Inventory Manager. The whole life management of STC containers is achieved through the application of processes and policies, with the aim of ensuring that

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an STC container is identifiable, traceable, serviceable and available throughout the life of the main equipment.

11. It is DLO policy that each unique item of supply held within the Defence Inventory shall be codified and allocated a NATO Stock Number. This policy shall apply to STC containers, and ensures that visibility and traceability is maintained throughout the Supply Chain. The Defence Logistics Support Chain Manual (JSP 886) Volume 2 Part 4 gives the policy and processes for NATO Codification in the UK. Note: when any STC is codified, the DMC for the store shall be adopted.

12. The serviceability of an STC container is paramount if the equipment being protected is to maintain its serviceability. To ensure an STC container is maintained in accordance with the original design specifications measures shall be put in place by the IPT, Equipment or Commodity Manager to ensure Service Drawings and any maintenance procedures are readily available.

13. During the service life of the main equipment it may be necessary to store empty containers. The storage of empty STC containers shall be afforded the same degree of care that would be applied if an STC container were complete with the equipment.

MARKING (IDENTIFICATION) OF STC CONTAINERS

14. The container shall display information and markings that:

- a. Offer immediate visual indication that it is an STC container;
- b. Provide all the required inventory management details.

15. In addition to any statutory markings required for the packaged store STC Containers are to be marked in accordance with Def Stan 81-41, Part 6.

16. Other markings such as inventory management information are to be applied in accordance with current service requirements.

17. The finishing colour of STC containers is not specified. Therefore, the colour shall meet the relevant standards required to meet operational requirements.

ACCOUNTABILITY

18. The management of STC containers depends on adequate accounting visibility and traceability and this is to be achieved through the inventory management control policy. The policy for the accounting of STC containers is laid down in JSP 472 Chapter 6 Section 20.

DISPOSAL

19. The disposal instruction for an STC container, with or without the main equipment shall be in accordance with the relevant JSP 886 instruction.

CHAPTER 5 - POLICIES AND PROCESSES APPLICABLE TO MUNITIONS PACKAGING IN MOD

DESIGN AND MANUFACTURE OF PACKAGING

1. Integrated Project Team (IPT) Leaders are responsible for the selection and application of packaging for their munitions, within the bounds of current defence packaging policy, which is to comply with UK legislation 'The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2005' for road and rail transport. Packaging for transport by Sea and Air is to be in accordance with the International Maritime Dangerous Goods Code and International Air Transport Association Dangerous Goods Regulations respectively.
2. Where applicable, existing Ammunition Container (AC) designs should be utilised to hold ammunition. The availability of existing packaging should be determined by consultation with the store Packaging Manager.
3. For new stores, munitions packaging shall be designed and manufactured in compliance with Def Stan 08-8. This standard contains a glossary of packaging terms, sets out general service requirements and defines technical methods of meeting them. A Technical Packaging Requirement (TPR) shall be produced in accordance with Def Stan 08-8. Advice on regulatory requirements for the packaging of military explosives may also be found in JSP 482, Volume 1, Chapter 14 and the Explosives Storage and Transport Committee (ESTC) Standard No. 8. It defines the responsibilities of both the IPT and the Defence Packaging Group (Def Pkg Gp) in placing a contract, and should be used as a guide for every explosives related contract.
4. The legal requirement for packaging testing and United Nations Certification marking is mandated by the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2005, commonly referred to as 'The Carriage Regulations 2005'. These regulations nominate the Department for Transport as the Competent Authority for The Packaging of Dangerous Goods with ESTC (on behalf of the Secretary of State for Defence) having Competent Authority for areas particular to MOD:
 - a. Classification of Military Explosives;
 - b. Development samples;
 - c. MOD Non-Standard Packages;
 - d. Unpackaged Explosives Articles (in crates or on racks).
5. The preparation of Ammunition Marking Drawings (AMDs) for specifying marking and labeling of packages shall be in accordance with Def Stan 08-10 (Parts 1 to 21) and Def Stan 13-98. Def Stan 08-10 contains general requirements in Part 1 for the preparation of marking drawings for ammunition and their associated packagings. The remaining Parts give requirements specific to defined categories of store. Def Stan 13-98 provides the requirement for the provision of General Munitions Technical Data to ensure the efficient in-service management of MOD explosives and munitions.
6. To avoid or minimize delays and defects, and to maintain serviceability, the munitions item and its packaging, Ammunition Container Assembly (ACA), are to be considered as

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forming a single entity which is to be designed and developed concurrently whenever this is practicable. Secretary ESTC (Sec ESTC) will classify the complete package.

7. The filled ACA shall be specifically designed to be part of, and modular to, a Unit Load Specification (ULS) in accordance with Def Stan 08-14. If this is found impracticable it should be discussed with the sponsor and the Def Pkg Gp.

8. The packaging and unit load shall be verified as detailed in Def Stan 81-41 Part 3 and shall be built and tested in accordance with STANAG 2828 (see the Defence Logistics Support Chain Manual (JSP 886) Volume 3 Part 4 Pamphlet 2 Chapter 2 Annex E to Section 2.). Details of approved ULS designs and current UN Package Performance Certificate Marks for any MOD store may be found in JSP 422.

PACKAGE CODES

9. Package Ammunition Descriptive Asset Code (ADAC) Suffixes (PAS) and package data required for munitions management via Ammunition System Two Revised Interactive Development (ASTRID) is given in Def Stan 13-98. (Note: ASTRID is the munitions equivalent of Stores System 3).

DANGEROUS GOODS

10. Guidance on Explosive Dangerous Goods is in JSP 482 and JSP 445.

INSENSITIVE MUNITIONS

11. For munitions, the role of the packaging as a means to meet Insensitive Munitions (IM) requirements and ameliorate munition life shall be assessed. Further guidance can be found in the IM Implementation Strategy Desk-Level Guidance for Acquisition Staffs and JSP 762.

REUSE AND / OR DISPOSAL OF EXPLOSIVES CONTAINERS

12. When sending any explosives containers for reuse/refurbishment or disposal Free From Explosives (FFE) procedures shall be followed, see JSP 482, Volume 1, Chapter 14 and Volume 2, Chapter 7 for more information.