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**Group of Experts for the revision of the IMO/ILO/UNECE
Guidelines for Packing of Cargo Transport Units**

Fourth session

Geneva, 4 – 6 November 2013

Item 6 (b) of the provisional agenda

Proposals for amendments to the final draft of the CTU Code:

General comments and proposals for a revised structure

Comments on and proposals to the draft CTU Code

Transmitted by the expert of United Kingdom

Introduction

The United Kingdom appreciates the work undertaken by the Group of Experts and shares the concerns given in paragraph 8.3 of DSC18/WP.1 regarding the draft Code with regards to its usability as a practical guide to packing cargo transport units and the accessibility of the Code once it is finalised.

In addition, we note the recommendation given in paragraph 18 of the report of the DSC 18 working group on the Revision of the Guidelines for Packing Cargo Transport Units is that the CTU Code should be user-friendly and divided into three parts:

1. Main body
2. Annexes, which are referenced in the main body, and
3. Appendices, containing informative material

Following discussions with industry, the UK believes that an alternative way of considering the draft Code is to consider how it would be used by the various parties within the transport supply chain. That is;

1. the Code of Practice would inform entities as to what elements of the process of packing a CTU should be taken into account and considered,
2. the annexes expand on these elements through giving the practicalities of “how to do it” and
3. the appendices supplement both the Code and Annexes through providing further information.

With the above criteria in mind, the UK has re-examined DSC18/8, using a checklist approach, to determine the appropriate placement of the text contained in the current Code of Practice and its annexes and appendices text.

Proposals

1. The UK is not proposing to make substantive changes to the current draft Code, and associated annexes and appendices, but to make editorial changes to make the document more accessible for the user by directing them to the appropriate text.

2. As training is key to the successful implementation of the Code of Practice, whether through in-house training or through the use of external training providers, chapter 13 should be renumbered as chapter 3 and modified to reflect the way such text is ordered in other transport Regulations. The annex covering this topic should be the first annex.

3. The UK believes that the key requirements are “actions and tasks” and that they are key to enabling the “packer” to making the correct choice of CTU and subsequent packing/securing decisions. Currently “key requirements” is given in chapter 3 of the Code of Practice (DSC18/8) and any elements of chapter 9 not covered in chapter 3 should be incorporated and the chapter re-numbered chapter 4. Chapter 4 would also be renamed “Key actions and tasks and associated information sources” and shown as a two column table. One column would be headed “Key actions and tasks” and would refer the user to what should be considered, and the options available, when packing a CTU. The second column headed “Associated information sources” would contain references. These references would direct the user to the appropriate Annex where information can be found advising the user how the “task or action” could be addressed.

A revised chapter 1 and a revised chapter 4 (current chapter 3) which includes indicative examples of the reference points of “associated information”, are provided in the annexes to this document. Unfortunately, time constraints meant we were unable to complete the table given in chapter 4¹.

4. All the other are chapters containing text which are better placed, to avoid duplication and for user-friendliness, either into an existing, or new, annex as supporting material or, if it only provides information, become an appendix.

5. Annexes and appendices should be ordered and re-numbered in accordance with stages of packing a CTU, that is:

- Training
- General Safety considerations
- Pre-Packing considerations
- Cargo issues
- CTU selection
- Modal specific considerations
- Packing / Loading the CTU
- Documentation
- Unloading and other consignee issues
- Additional Dangerous Goods issues

6. Unless the Code of Practice is going to be updated on a biennial basis, as the surface modal dangerous Regulations are updated biennially, any reference to dangerous goods should only be very general, drawing the attention of the reader that dangerous goods will require additional consideration.

7. The terms “closed cargo transport unit” and “freight container” are used within the Code, its annexes and appendices, the definitions given in the UN Model Regulations have been included in Chapter 2, Definitions. It is believed when the term “container” is used

¹ The expert of UK has transmitted a track change version of the first 5 chapters. The secretariat has reproduced the proposals for amendments, other than those to chapter 1 and 4, in the consolidated list (Informal document EG GPC No. 6 (2013)).

within DSC 18/8, where appropriate, it should be replaced with the term “freight container” to avoid mis-understanding.

8. As the risks from fumigated cargo transport units are well recognised, but the Regulatory requirements are not widely understood by those who are not routinely transporting dangerous goods, together with the provisions concerning asphyxiant gases, the text from Chapters 5.5.2 and 5.5.3 of UN Model Regulations for the Transport of Dangerous Goods should be reproduced in full and included in the appropriate annex, as they were developed to be stand alone documents and the web link should be given.

Annexes

I. Proposed structure for the CTU Code

TABLE OF CONTENTS

Preamble

Chapter 1. Introduction

Chapter 2. Definitions

Chapter 3. Training

Chapter ~~34~~. Key actions and tasks and associated information sources~~Key requirements~~

Chapter ~~45~~. Chains of responsibility and information

Chapter 5. General transport conditions gives information move to annexes

Chapter 6. CTU properties gives information move to annexes

Chapter 7. CTU suitability gives information move to annexes

Chapter 8. Arrival, checking and positioning of CTUs gives information move to annexes

~~Chapter 9. Packing cargo into CTUs~~ merged with chapter 3 (renumber as chapter 4)

Chapter 10. Additional advice on the packing of dangerous goods gives information move to annexes

Chapter 11. On completion of packing gives information move to annexes

Chapter 12. Advice on receipt and unpacking of CTUs gives information move to annexes

~~Chapter 13. Training in packing of cargo transport units~~

II. Revised chapter 1

Chapter 1. Introduction

1.1 Scope

- 1.1.1 The aim of this Code of Practice (CTU Code) is to give advice on safe packing of cargo transport units to those responsible for the packing and securing of the cargo, and to those whose task it is to train people who pack such units and to controlling authorities and surveyors. The aim is also to outline theoretical details for packing and securing as well as to give practical measures to ensure the safe packing of cargo onto or into cargo transport units. Background information is also given to assist those responsible for developing training packages for their employees to ensure adherence with this Code of Practice.
- 1.1.2 In addition to advice to the packer, the CTU Code also provides information for all parties in the supply chain, including advice for those involved in unpacking the CTU.
- 1.1.3 The CTU Code is not intended to conflict with, or to replace or supersede, any existing national or international regulations which may refer to the packing and securing of cargo in cargo transport units, in particular existing regulations which apply to one mode of transport only, e.g. for transport of cargo in railway wagons by rail only.

1.2 Security

- 1.2.1 It is important that all personnel involved in the packing, security sealing, handling, transport and processing of cargo are made aware of the need for vigilance and the diligent application of practical procedures to enhance security, in accordance with national legislation and international agreements.
- 1.2.2 Guidance on the security aspects of the movement of cargo transport units intended for carriage by sea may be found in a variety of documents including the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended; the International Ship and Port Facility Security (ISPS) Code; the ILO/IMO Code of Practice on Security in Ports; and the Standards and the Publicly Available Specifications developed or being developed by the International Organization for Standardization (ISO) to address cargo security management and other aspects of supply chain security. Furthermore, the World Customs Organization (WCO) has developed a SAFE Framework of standards to secure and facilitate global trade.

1.3 How to use the Code of Practice (CTU Code)

- 1.3.1 This Code of Practice comprises ~~13-5~~ chapters many of which need to be read in conjunction with one or more annexes each of which will be highlighted in the ~~texttable given in Chapter 4~~.
- 1.3.2 Following the introduction in Chapter 1, Chapter 2 lists definitions of terms which are used throughout the CTU Code and should be read in conjunction with the Acronyms listed in Annex 21.
- 1.3.3 Acknowledging the fundamental importance of training Chapter 3 highlights the crucial need for personnel involved in the packing of cargo in CTUs to receive appropriate instruction.
- ~~1.3.4 Chapter 4 provides an overview on the key actions and tasks for packing a CTU and refers the user to the appropriate annex or appendix. provides an overview on key requirements for packing CTUs, briefly described as “dos and don’ts”. Detailed information on how to comply with these “dos” and how to avoid the “don’ts” are contained in later chapters and in the annexes~~
- ~~1.3.3 Chapter 9 Packing cargo into CTUs and Chapter 12 Advice on receipt and unpacking of CTUs are the two chapters that are of particular importance to those involved with packing and unpacking activities. Chapter 9 directs the user to four main annexes, including Annex 14 Packing and securing cargo into CTUs which provides the user with detailed instruction for packing different cargoes. For those who require more information about the various subjects found in this Annex,~~

~~there are a number of Appendices which further describes the calculations required for developing the subject.~~

- 1.3.45 Packers are reminded that the success of their packing will be that the cargo reaches its destination and is unpacked safely without injuring persons, causing other damages or being damaged itself. ~~Chapter Annex 12, Receiving CTUs~~¹² is provided in the CTU Code to ensure that packers are aware of the actions that the unpacker should undertake on arrival. The ~~Chapter Annex~~ also reflects the principle that although the packer's responsibility is to ensure that the cargo is properly packed and secured in the CTU, everyone in the supply chain has a responsibility to the care of the cargo and this is demonstrated in Chapter ~~4-5~~ *Chains of responsibility and information* which identifies the chains of responsibility and communication for the principle functionaries in the supply chain. ~~Examples of the consequences of failing~~^{Failure} to pack CTUs correctly can be seen in Annex 1 *Consequences of improper packing procedures*.
- ~~1.3.5 The required qualification of personnel engaged in the packing of CTUs is outlined in Chapter 13 Training in packing of cargo transport units and Annex 20 Topics to be included in a training programme.~~
- 1.3.6 The CTU Code also provides detailed descriptions of CTU types so that the shipper may select the correct equipment to transport the goods and to understand the benefits of using a particular type of equipment. This is covered in ~~Chapter Annex 6~~ CTU properties and its ~~Annex Appendix 6~~ CTU types.
- 1.3.7 The CTU Code also provides simple instructions and incorporates a Quick Lashing Guide in Annex 4 *Quick lashing guide*.
- 1.3.8 International transport involves moving goods from one location to another and often this can involve a significant period of time, or delay in supply chain terms. The transport element provides a platform for alien species to be carried across international boundaries while the transport time can cause the goods to deteriorate. The CTU Code provides information to cover the prevention of recontaminating cleaned CTUs (Annex 13) the transport of perishable goods (Annex 9) and testing CTU for hazardous gases (Annex 19) which may have built up inside the CTU during transport.
- ~~1.3.9 Where there is insufficient information packer and shippers are advised to contact the CTU operator or carrier for further guidance.~~

[1.4 Standards

Throughout this document, its annexes and appendices any National or Regional standards are given for information only.]

III. Revised chapter 4

Chapter ~~3.4~~ Key requirements Key actions and tasks and associated information sources

This Chapter identify those actions and tasks that are key to the safe packing and transport of cargo that is carried within, or on cargo transport unit, followed by the reference (hyperlink) to the appropriate annex or appendix which give(s) practical guidance or information to enable users to carry out that task or action.

4.1 Training

<u>Action / Task</u>	<u>Associated guidance or supporting information reference</u>
<u>Identify elements for training required</u>	<u>Annex 20</u>
<u>Personnel should be trained commensurate with their responsibilities.</u>	<u>Annex 1, 2, 3 and 7</u>
<u>Records of training received should be kept by the employer and made available to the employee or competent authority upon request.</u>	

~~3.14.2~~ General Health and Safety

<u>Action / Task</u>	<u>Associated guidance or information reference</u>
Do-A <u>Arrange for a safe working environment including working at heights(e.g. tank filling) and other local Health and Safety regulations-</u>	<u>Annex 16</u>
Do-U <u>Use safe manual and mechanical handling equipment.</u>	<u>Annex 15</u>
Do-u <u>Use appropriate personal protective equipment.</u>	<u>Annex 14 para 3.3</u>
Do-C <u>Check that the CTU and any cargo securing equipment are in sound condition.</u>	<u>Annex 11</u>
Do not smoke, eat or drink during packing, securing or unpacking.	

~~3.24.3~~

<u>Pre packing considerations (planning)</u>	<u>Annex 14 part 1</u>
<u>Identify physical characteristics (shape, weight and size) and type of cargo including its centre of gravity and in the case of liquids consider free surface effects</u>	<u>Annex 14.1</u>
<u>Take into account modal forces and conditions likely to be encountered during transport</u>	<u>Appendix 4: 10, current chapter 5</u>
<u>Take into account any special handling instructions</u>	
<u>Select the most suitable CTU type to accommodate the cargo</u>	<u>Annex 6</u>

<u>Select the securing methods best adapted to the characteristics of the cargo and the properties of the CTU.</u>	<u>Annex 14.4</u>
<u>Ensure the cargo and securing materials complies with the international standards for Phytosanitary Measures² when applicable</u>	
<u>Prepare a packing plan, if appropriate.</u>	
<u>Consider additional requirements, if dangerous (IMDG Code) goods form part of the load</u>	<u>Current chapter 10</u>
<u>Will the loaded CTU have to be fumigated</u>	<u>Annex 18</u>

4.5 Arrival of CTU

<u>Carry out internal and external checks of the CTU prior to loading e.g that there is no damage that could affect its integrity and if appropriate, a valid CSC plate or ACEP decal</u>	<u>Annex 11 and Annex 8</u>
<u>Will the intended load exceed the permitted payload limits of the unit or the maximum allowed gross mass according to the CSC², national road and rail regulations.</u>	<u>Annex 14.1</u>

3-34.6 Packing (Annex 14 Part 3) and Securing (Annex 14 Part 4 and Appendix 5)

Distribute heavy cargo appropriately over the floor area.	<u>Annex 14.3</u>
Observe all handling instructions and symbols on packages such as "this side up".	<u>Annex 14.1</u>
Load with the centre of gravity correctly located in the CTU.	<u>Annex 14.1</u>
Do not concentrate heavy cargo on small areas of the floor.	
Do not load with <u>an uneven eccentric</u> -load distribution.	
Do not build up irregular layers of packages if it can be avoided.	
Do not stow heavy goods on top of light goods.	<u>Annex 14.3</u>
Do not stow goods with tainting odours together with sensitive merchandise.	
Do not pack wet and damp goods if it can be avoided.	
Do not use securing or protection equipment which is incompatible with the cargo.	
Fill void spaces when necessary.	
Use locking, blocking or lashing or a combination of these methods to prevent the cargo from sliding and tipping in any direction.	<u>Annex 14, Appendix 5</u>
Secure the cargo in a way that forces are distributed over an appropriate area of a unit.	

² International standards for phytosanitary measure, No. 15 Regulation of wood packaging material in international trade, 2009.

When appropriate, secure each single loaded item independently	
Use non slip surface material to refrain packages from sliding where appropriate.	
Do use hooks or shackles to fasten lashings where applicable.	
Do not secure the cargo with devices overstressing the structure of the CTU.	
Do not overstress securing devices.	
Do not over tighten securing devices so that the packaging or goods are damaged	
Do not fasten web lashings by means of knots	
<u>Avoid ingress of pests, soil etc when loading and other</u>	<u>Annex 13</u>

3.44.7 Packing of dangerous goods

Do not pack leaking or damaged packages.	
Do check that all packages are properly marked, and labelled <u>and documented</u> .	
Do not Pack ack dangerous goods according to applicable <u>to the modal</u> dangerous goods regulations <u>e.g segregation</u> :-	
Do not <u>Other than for reasons of weight distribution,</u> pack dangerous goods near the door of the CTU where possible .	
If required, a Do affix required placards, marks and signs on the exterior of the CTU.	
Do not pack incompatible goods which have to be segregated	
Do not pack damaged packages.	

3.5 ~~Securing~~ 4.8 Packing of bulk materials Annex 14 part 5)-

Do fill void spaces when necessary.	
Do use locking, blocking or lashing or a combination of these methods to prevent the cargo from sliding and tipping in any direction.	
Do secure the cargo in a way that forces are distributed over an appropriate area of a unit.	
Do secure each single loaded item independently where necessary.	
Do use non slip surface material to refrain packages from sliding where appropriate.	
Do use hooks or shackles to fasten lashings where applicable.	
Do not secure the cargo with devices overstressing the structure of the CTU.	
Do not overstress securing devices.	
Do not over tighten securing devices so that the packaging or goods are damaged	

Do not fasten web lashings by means of knots	
<u>Ensure applicable filling ratios for liquids are complied with;</u>	
<u>Ensure fittings and liners, etc are compatible with the goods to be carried</u>	
<u>Follow suppliers procedures for the safe transport of liquids in flexitanks</u>	
<u>CTUs and not overstressed by the carriage and loading of solid bulk cargoes.</u>	

3.64.9 On completion of packing

Do <u>D</u> etermine the correct gross mass of the CTU <u>and its contents</u> .	
Do <u>A</u> ffix a seal when required.	
Do include the CTU number, the correct gross mass and, when required, the seal number in the appropriate documents.	
Do provide a packing certificate when required.	
<u>Check CTU for pest, soil etc contamination</u>	<u>Annex 13</u>

3.74.10 Opening CTU and Unpacking

<u>Check the exterior of the CTU for signs of leakage or infestation.</u>	
<u>Open the CTU with caution as cargo might fall out.</u>	
<u>In the case of a container stand away from doors and ventilate before entering as it under, in case of container may be fumigated or oxygen depleted space</u>	
Do <u>C</u> heck that the identification number on the CTU and, when the CTU is sealed, the seal serial number, are as shown on the transport documentation.	
Do <u>check the exterior of the CTU for signs of leakage or infestation.</u>	
Do <u>U</u> se proper equipment to cut the seal if existing.	
Do <u>open the CTU with caution as cargo might fall out.</u>	
Do <u>r</u> ecord every package as it is removed noting any markings and damages.	
Do <u>r</u> emove all securing and protection material for reuse, recycle or dispose.	
Do <u>C</u> lean the interior of the CTU to remove all traces of the cargo, especially loose powders, grains and noxious materials, unless otherwise agreed.	
Do <u>r</u> emove all dangerous goods marks from the exterior of the CTU once it has been cleaned.	