

Chapter 13. Training in packing of CTUs

13.1 Introduction

- 13.1.1 The successful application of this Code concerning the packing of CTUs and the achievement of its objectives are greatly dependent on the appreciation by all persons concerned of the risks involved and on a detailed understanding of the Code. This can only be achieved by properly planned and maintained initial and retraining programmes for all persons concerned with the packing of CTUs.
- 13.1.2 Training of persons employed by the parties mentioned in chapter 4 can be undertaken in-house through the use of designated personnel alternatively external or distance (e-learning) training providers may be used. However, when parties use external training providers, they should ensure that such providers can provide training to meet the requirements of this Code. Persons responsible for planning and supervision of packing should be fully knowledgeable about all technical, legal and commercial requirements of this task and on all risks and dangers involved. They should know the customary terminology in order to communicate effectively with consignors, forwarders and the persons who do the actual packing.
- 13.1.3 Personnel engaged in the actual packing should be trained and skilled in doing this work and understand the relevant terminology in order to comply with the instructions of the planner. They should be aware of the risks and dangers involved including safe manual handling.
- 13.1.4 Persons responsible for planning and supervision of packing as well as personnel responsible for the actual packing should receive appropriate education and training for their tasks before they do the work with immediate responsibility.
- 13.1.5 The management of a facility where CTUs are packed is responsible to ensure that all personnel involved in the packing of cargo in CTUs or in the supervision thereof are adequately trained and appropriately qualified, commensurate with their responsibilities within their organization.

13.2 Regulatory authorities

The regulatory authority should work with stakeholders to establish minimum requirements for training and, where appropriate, qualifications for each person involved, directly or indirectly, in the packing of cargo in CTUs, particularly in relation to dangerous goods.

13.3 Training

- 13.3.1 Personnel engaged in the packing of CTUs should be trained in the contents of this Code commensurate with their responsibilities. Employees should be trained before assuming responsibilities and should only perform functions for which training has not been provided under the direct supervision of a trained person. If appropriate, such training should be supplemented by a period spent assisting knowledgeable planners and packers so that practical experience can be gained.
- 13.3.2 The training should be designed to provide an appreciation of the consequences of badly packed and secured cargo in CTUs, the legal requirements, the magnitude of forces which may act on cargo during road, rail and sea transport, as well as basic principles of packing and securing of cargoes in CTUs. Topics for consideration, to be included in the training as appropriate, are given in annex 10.

13.4 Records

Records of training should be kept and maintained to document employee training in accordance with local regulatory practice.

Annex 10. Topics for consideration in a training programme

Topics to be included in a training programme	
1	<p>Consequences of badly packed and secured cargo</p> <ul style="list-style-type: none">• Injuries to persons and damage to the environment• Damage to all means of transport and CTUs• Damage to cargo• Economic consequences
2	<p>Liabilities</p> <ul style="list-style-type: none">• Different parties involved in cargo transport• Legal responsibility• Goodwill responsibility• Quality assurance
3	<p>Forces acting on the cargo during transport</p> <ul style="list-style-type: none">• Road transport• Rail transport• Sea transport
4	<p>Basic principles for cargo packing and securing</p> <ul style="list-style-type: none">• Prevention from sliding• Prevention from tipping• Influence of friction• Basic principles for cargo securing• Dimensions of securing arrangements for combined transport
5	<p>CTUs – types</p> <ul style="list-style-type: none">• Freight containers• Flats• Swap bodies• Road vehicles• Rail cars/wagons
6	<p>Cargo care consciousness and cargo planning</p> <ul style="list-style-type: none">• Choice of transport means• Choice of CTU type• Check of CTU prior to packing• Cargo distribution in CTUs• Requirements from the receiver of cargo regarding cargo packing• Condensation risks in CTUs• Symbols for cargo handling
7	<p>Different methods for cargo packing and securing</p> <ul style="list-style-type: none">• Lashing• Blocking and bracing• Increasing friction
8	<p>Safe handling of packages</p> <ul style="list-style-type: none">• Manual handling• Mechanical handling devices• Personal protective equipment

Topics to be included in a training programme	
9	Equipment for securing and protection of cargo <ul style="list-style-type: none"> • Fixed equipment on CTUs • Reusable cargo-securing equipment • One-way equipment • Inspection and rejection of securing equipment
10	On completion of packing <ul style="list-style-type: none"> • Closing the CTU • Marking and placarding • Documentation • Verifying gross mass
11	Packing and securing unitized cargo <ul style="list-style-type: none"> • Cases • Palletized cargoes • Bales and bundles • Bags on pallets • Big bags • Slabs and panels • Barrels • Pipes • Cartons
12	Packing and securing of non-unitized cargo <ul style="list-style-type: none"> • Different types of packaged cargoes packed together • Packing of heavy and light cargoes together • Packing of rigid and non-rigid cargoes together • Packing of long and short cargoes together • Packing of high and low cargoes together • Packing of liquid and dry cargoes together
13	Packing and securing of paper products <ul style="list-style-type: none"> • General guidelines for the packing and securing of paper products • Vertical rolls • Horizontal rolls • Sheet paper on pallets
14	Packing and securing of cargo requiring special techniques <ul style="list-style-type: none"> • Steel coils • Cable drums • Wire rolls • Steel slabs • Steel plates • Big pipes • Stone blocks • Machines
15	Packing and securing of dangerous cargoes <ul style="list-style-type: none"> • Regulations for the transport of dangerous goods • Definitions • Packing regulations • Packing, separation and securing • Labelling and placarding • Information transfer when transporting dangerous cargoes • Liabilities