

Main Changes made to the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) 2015 Edition

Prepared by the Health and Safety Authority

January 2015

Contents

INTRODUCTION				
Part 1: General Provisions5				
Chapter 1.1	Scope and applicability5			
Chapter 1.2	Definitions			
Chapter 1.6	Transitional Measures6			
Chapter 1.7	Radioactive material – general provisions7			
Chapter 1.8	Support measures - accreditation7			
Chapter 1.9	Tunnel restrictions7			
Part 2: Classification				
Chapter 2.1	Classification – general provisions			
Chapter 2.2 C	lass specific provisions			
Part 3: Dangero	us Goods List, Special Provisions, LQ and EQ9			
Chapter 3.2	Dangerous Goods List9			
Chapter 3.3	Special Provisions			
Chapter 3.4	Limited Quantities16			
Part 4: Packing a	and Tank Provisions17			
Chapter 4.1	Packing provisions – use of packagings17			
Chapter 4.2	Use of portable tanks and UN MEGCs19			
Chapter 4.3	Use of ADR tanks19			
Chapter 4.5 U	se of Vacuum operated waste tanks19			
Part 5: Consignment Procedures20				
Chapter 5.1	General Provisions20			
Chapter 5.2	Marking and Labelling20			
Chapter 5.3	Placarding and marking21			
Chapter 5.4	Documentation21			
Chapter 5.5	Special Provisions21			
Part 6: Requirer	nents for Construction and Testing of Packagings, Tanks and Bulk Containers22			
Chapter 6.1	Construction and testing of packages22			
Chapter 6.2	Construction and testing of pressure receptacles22			
Chapter 6.4	Construction, Testing and Approval of Radioactive Material and Packages			
Chapter 6.5	Construction and testing of IBCs24			
Chapter 6.6	Construction and testing of Large Packagings24			

Chapter 6.7	Construction and Testing of Portable Tanks and UN MEGCs	24
Chapter 6.8	ADR Tanks	25
Chapter 6.10	Vacuum operated waste tanks	25
Part 7: Conditio	ns of Carriage, Loading, Unloading and Handling	25
Chapter 7.3	Carriage in bulk	25
Chapter 7.5	Loading, unloading and handling	26
Part 8: Vehicle (Crews, Equipment, Operation and Documentation	
Chapter 8.1	Transport units and equipment on board	26
Chapter 8.2	napter 8.2 Training of vehicle crew	

INTRODUCTION

This report identifies what are considered to be the most significant changes made to the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) for the 2015 edition.

As with each new edition of the ADR, a significant quantity of the amendments to the text have already been published in the UN Recommendations on the Transport of Dangerous Goods - <u>Model Regulations</u> (18th revised edition, 2013), others have arisen from in-depth discussions at the Joint Meetings of the RID Committee of Experts (transport by rail) and the Working Party on the Transport of Dangerous Goods (transport by road), and others that apply only to the ADR itself arise from discussions at the meetings of the Working Party for the transport of dangerous goods (WP15). Reports from such meetings are accessible on the UNECE website in the <u>Dangerous Goods</u> section. The changes that arise from the Model Regulations will also be incorporated into the next revisions of the IMDG Code and the ICAO Technical Instructions.

There have been a significant number of editorial changes in this edition in relation to radioactive material, for the most part arising from the issue of the Regulations for the Safe Transport of Radioactive Material, 2012 Edition, No. SSR-6 by the IAEA, which replaced the 2009 Edition.

Many of the changes have been made to ensure greater consistency in application among the contracting parties to the agreement and are thus clarifications in the text rather than amendments that alter the actual provisions. For the most part, minor editorial changes have not been included, unless such editorial changes alter the meaning of the subsection or paragraph to a significant extent.

Details of all amendments made to Annexes A and B of the ADR adopted by the Working Party for entry into force on the 1 January 2015 are available in the report <u>ECE/TRANS/WP.15/222</u> along with the relevant addenda and corrigenda. Articles detailing many of the changes and how they may affect industry are also available in various issues of the HCB Bulletin throughout 2014.

The structure of the 2015 edition of the ADR has been altered, in that Sections 3.3, 3.4 and 3.5 covering special provisions, limited quantities and excepted quantities have been moved from Volume II to the rear of Volume I after the Dangerous Goods list. Volume II thus commences with Part 4, packing and tank provisions.

Part 1: General Provisions

Chapter 1.1 Scope and applicability

A new paragraph (c) has been added under sub-section 1.1.3.3 relating to exemptions for the carriage of liquid fuels, to cover fuel contained in the tanks of non-road mobile machinery which is carried as a load. A **footnote** provides the source of the definition of 'non-road mobile machinery'.

Under the small load exemption 1.1.3.6, paragraph 1.1.3.6.3 has been amended to clarify the units of measurement to be used for the maximum total quantity per transport unit to be carried for liquids, for compressed gases and chemicals under pressure.

Sub-section 1.1.3.7 has been amended to broaden the scope of the exemption from the carriage of lithium batteries only to the carriage of electric energy storage and production systems (a group which includes lithium batteries).

A new subsection 1.1.3.10 has been inserted to include exemptions related to the carriage of lamps containing dangerous goods. These include

- lamps collected individually from households for carriage to collection points or recycling facilities,
- lamps containing not more than 1g of dangerous goods and packaged with no more than 30g of dangerous goods per package,
- used, damaged or defective lamps carried from collection or recycling facilities, and
- lamps containing only gases of groups A and O.

Such exemptions apply only if the lamps do not carry radioactive material [these are covered in ADR 2.2.7.2.2.2 (b)], or mercury above quantities specified in SP 366 of Chapter 3.3.

Chapter 1.2 Definitions

Definitions for "closed bulk container" and "sheeted bulk container" have been added under the definition for "bulk container".

The definitions of "composite packaging (plastics material)" and "composite packaging (glass, porcelain or stoneware)" have been combined under the one definition for "composite packaging". **New notes** have been added to the definitions of "combination packaging" and "composite packaging" to explain the difference between the terms "inner packaging" used for <u>combination</u> packagings and "inner receptacle" used for <u>composite</u> packagings.

The definition of "service equipment" has been amended to include "additive devices" to reflect the inclusion of a new special provision 664 in Chapter 3.3 which provides for additive devices in the service equipment of fixed tanks or demountable tanks.

The definition of "shell" has been expanded and new definitions have been added for "large salvage packaging", "management system", "neutron radiation detector" and "radiation detection system".

Chapter 1.6 Transitional Measures

Deleted transitional measures

A number of transitional measures have been deleted at the end of their transition period:

- 1.6.1.10 and 1.6.1.24 relating to lithium cells and batteries
- 1.6.1.16 in relation to animal material affected by pathogens included in Category B
- 1.6.1.19 on the classification of EHS
- 1.6.4.31 relating to portable tank special provision TP35

New transitional measures

New general transitional measures 1.6.1.28 to 1.6.1.36 have been added in relation to:

- Accreditations in accordance with EN ISO/IEC 17020:2004 which will not be recognised after 28 February 2015 (for the purposes of ADR 1.8.6.8, 6.2.2.11 and 6.2.3.6.1)
- Lithium cells and batteries manufactured according to sub-section 38.3 of the Manual of Tests and Criteria
- Labels, placards and markings which meet the requirements of ADR up to 31 Dec 2014 may continue to be used until 31 Dec 2016
- New marking requirements for overpacks [ADR 5.1.2.1(a)]
- New marking requirements for salvage packagings (ADR 5.2.1.3)
- Electric double layer capacitors (sub-paragraph (e) of SP 361 of 3.3)
- Asymmetric capacitors ((sub-paragraph (c) of new SP 372 of 3.3)
- Instructions in writing which meet the requirements of ADR 5.4.3 up to Dec 2014 may continue to be used until 30 June 2017
- Driver training certificates issued before 1 Jan 2014 which do not comply with ADR 8.2.2.8.5 applicable from 1 Jan 2013 may continue to be used until their date of expiry

New transitional measures, 1.6.2.13, 1.6.2.14 and 1.6.2.15 have been added in relation to:

- Bundles of cylinders manufactured before 1st July 2013 (ADR 6.2.3.9.7.2 and 6.2.3.9.7.3)
- Cylinders for the carriage of adsorbed gases (ADR 4.1.4.1 new packing instruction P208)
- Bundles of cylinders periodically inspected before 1st July 2013 (ADR 6.2.3.9.7.3)

A new transitional measure 1.6.3.44 has been inserted to allow fixed tanks and demountable tanks, intended to the carriage of UN Nos. 1202, 1203, 1223, 3475, and aviation fuel under UN Nos. 1268, 1863 equipped with additive devices and which do not conform to the requirements of special provision 664 (new special provision in ADR Chapter 3.3), to continue to be used until the first intermediate or periodic inspection after 31 Dec 2015.

A new transitional measure 1.6.5.15 has been added to allow the continued use of vehicles first registered before 1 Nov 2014 and approved by Directives which were subsequently repealed by Regulation (EC) No. 661/2009 concerning type approval requirements.

A new subsection 1.6.6.3 has been added to the transitional measures for Class 7 material regarding packages excepted from the requirements for fissile materials.

Amended transitional measures

A number of transitional measures have been amended:

- 1.6.1.15 to allow the continued use of certain IBCs
- 1.6.1.26 to allow large packagings manufactured in accordance with ADR 6.6.3.3 up to 31 Dec 2014 to continue to be used
- 1.6.5.4 regarding the construction of EX/II, EX/III, FL, OX and AT vehicles (requirements of Part 9)
- 1.6.5.10 to allow certificates of approval conforming to the model in 9.1.3.5 applicable to 31 Dec 2014 to continue to be used
- 1.6.6.1 regarding provisions for the carriage of packages not requiring Competent Authority approval of design but meeting the requirements of the IAEA Regulations for the Safe Transport of Radioactive Material (1985)
- 1.6.6.2. regarding packages approved under IAEA Safety Series No. 6 (1973 and 1985 editions as amended)

Chapter 1.7 Radioactive material – general provisions

Various editorial amendments have been made in section 1.7.1, the most significant being in subsections 1.7.1.1, 1.7.1.4, 1.7.1.5.1 and 1.7.1.5.2. Section 1.7.3 previously entitled 'Quality assurance' has been renamed to 'Management System' and amended to include in its scope all activities within the scope of ADR as identified in sub-section 1.7.1.3.

Chapter 1.8 Support measures - accreditation

Paragraph 1.8.6.4.1 has been amended to include specific accreditation requirements for entities subcontracted by inspection bodies to carry out specific inspection tasks.

Chapter 1.9 Tunnel restrictions

Paragraph 1.9.5.3.6 has been expanded to provide further clarification as to when tunnel restrictions do and do not apply, including

- the arrangements for radioactive material transported under special arrangement (UN No. 2919 non-fissile and UN No. 3331 fissile),
- goods carried as limited quantities for which marking in accordance with ADR 3.4.13 is required, and
- dangerous goods carried in accordance with ADR 1.1.3 (under the various exemptions).

Part 2: Classification

Chapter 2.1 Classification – general provisions

A new paragraph has been added to subsection 2.1.1.3 to provide for **articles**, which are not assigned to packing groups, thus packaging for such articles is set out in the applicable packing instruction.

Paragraph 2.1.3.5.3 which lists the major hazard groups for classification of substances, solutions and mixtures, has been amended to specifically **exclude** new UN No 3507, URANIUM HEXAFLUORIDE, radioactive material, excepted package from the category of material of class 7, as it is carried in excepted packages under new special provision 369 (see sections covering ADR Chapters 3.2 and 3.3).

A new section 2.1.5 has been added to cover the classification of packagings, discarded, empty, uncleaned, which may be assigned to new UN No. 3509.

Chapter 2.2 Class specific provisions

ADR 2.2.1 Class 1 Explosives

In sub-section 2.2.1.4 the entry for AIR BAG INFLATORS or AIR BAG MODLES or SEAT-BELT PRETENSIONERS: UN No. 0503 has been generalised to SAFETY DEVICES, PYROTECHNIC, UN No. 0503, with the examples of such devices provided instead in the glossary description.

ADR 2.2.2 Class 2 Gases

A new subdivision has been added to the list of substances and articles of Class 2 in paragraph 2.2.2.1.2 to include '**Adsorbed gases**' in Class 2, which includes a definition for what constitutes an adsorbed gas.

The list of collective entries for Class 2 sub-section 2.2.2.3 is amended to include the following table:

Adsorbed gases				
Classification code	UN No.	Name of the substance or article		
9A	3511	ADSORBED GAS, N.O.S.		
90	3513	ADSORBED GAS, OXIDIZING, N.O.S.		
9F	3510	ADSORBED GAS, FLAMMABLE, N.O.S.		
9Т	3512	ADSORBED GAS, TOXIC, N.O.S.		
9TF	3514	ADSORBED GAS, TOXIC, FLAMMABLE, N.O.S.		
9TC	3516	ADSORBED GAS, TOXIC, CORROSIVE, N.O.S.		
9TO	3515	ADSORBED GAS, TOXIC, OXIDIZING, N.O.S.		
9TFC	3517	ADSORBED GAS, TOXIC, FLAMMABLE, CORROSIVE, N.O.S.		
9TOC	3518	ADSORBED GAS, TOXIC, OXIDIZING, CORROSIVE, N.O.S.		

ADR 2.2.3 Class 3 Flammable Liquids

Paragraph 2.2.3.1.4 has been amended to clarify the criteria for assignment of packing group III to viscous liquids having a flash point of less than 23°C.

Paragraph 2.2.3.1.5 has been amended to clarify the scope, criteria and test methods for viscous liquids which are deemed not to be subject to ADR.

ADR 2.2.51 Class 5.1 Oxidizing Solids

Paragraphs 2.2.51.1.6 and 2.2.51.1.7 regarding the classification of oxidizing solids and the assignment of packing groups have been amended to include a new Test O.3 in the Manual of Tests and Criteria, sub-section 34.4.3.

ADR 2.2.62 Class 6.2 Infectious Substances

Exemption 2.2.62.1.5.5 which covers various types of blood components and samples has been subdivided into three different exemptions to improve accessibility and clarity.

ADR 2.2.7 Class 7 Radioactive material

Table 2.2.7.2.1.1 on the assignment of UN numbers has been amended to include new entry UN No. 3507, URANIUM HEXAFLUORIDE, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE, and **new table notes** have been added.

Various new paragraphs have been added and editorial amendments made to paragraphs 2.2.7.2.2, 2.2.7.2.3 and 2.2.7.2.4.

ADR 2.2.9 Class 9 Miscellaneous dangerous substances and articles

In the list of collective entries in sub-section 2.2.9.3, the entries for substances which, on inhalation as fine dust, may endanger health have been amended to reflect the new name and description for the different types of ASBESTOS, AMPHIBOLE and CHRYSOTILE (UN Nos. 2212 and 2590).

New entries UN Nos. 3508, CAPACITOR, ASSYMETRIC, and 3509, PACKAGINGS, DISCARDED, EMPTY, UNCLEANED have been added.

Part 3: Dangerous Goods List, Special Provisions, LQ and EQ

Chapter 3.2 Dangerous Goods List

To reflect significant amendments to the provisions for **carriage in bulk** in Section 7.3.3, the explanatory note for column 17 of Table A in section 3.2.1 has been amended to indicate that the alphanumeric codes have been changed from codes starting with the letters "VV" to **two sets of codes**, starting with the letters "VC" and the letters "AP". This change gives rise to many consequential amendments to various entries in Column 17 of Table A.

As is generally the case, a significant number of changes have been made to the dangerous goods list, including **20 new entries**, and in addition there have been various amendments to existing entries, which are provided below under the headings 'changes to proper shipping names' and 'miscellaneous changes'.

New Entries

Uranium Hexafluoride

The new entry **UN No. 3507 URANIUM HEXAFLUORIDE, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE,** less than 0.1 Kg per package, non-fissile or fissile excepted, is accompanied by a **new special provision 369** which allows this radioactive material in an excepted package possessing corrosive properties to be classified as Class 8 with a radioactive material subsidiary risk, so long as the conditions specified in 2.2.7.2.3 and 2.2.7.2.4 are met.

Asymmetric Capacitors

UN No. 3508, CAPACITOR, ASSYMETRIC (with an energy storage capacity greater than 0.3Wh) has been accompanied by a **new special provision 372**, which provides a definition for what energy storage capacity means, a list of conditions which must apply for asymmetric capacitors to be carried under this entry, and in addition a description of the types of capacitors which are not subject to the provisions of ADR.

Adsorbed Gases

Seventeen new entries have been added for adsorbed gases. An adsorbed gas is defined in Section 2.2.2 as a gas which when packaged for carriage is adsorbed onto a solid porous material resulting in an internal receptacle pressure of less than 101.3 KPa at 20°C and less than 300 KPa at 50°C.

Nine of the new entries for adsorbed gases are provided as collective entries, the UN number s for which are provided in Section 2.2.2, Class 2, gases. The remaining eight are single entries:

UN 3519 BORON TRIFLUORIDE, ADSORBED

UN 3520 CHLORINE, ADSORBED

UN 3521 SILICONTETRAFLUORIDE, ADSORBED

UN 3522 ARSINE, ADSORBED

UN 3523 GERMANE, ADSORBED

UN 3524 PHOSPHOROUS PENTAFLUORIDE, ADSORBED

UN 3525 PHOSPHINE, ADSORBED

UN 3526 HYDROGEN SELENIDE, ADSORBED

They can be packaged in accordance with new packaging instruction P208, under mixed packaging provision MP9 and cannot be carried in limited or excepted quantities. The majority of the gases are toxic (assigned to Division 2.3 in the UN Model Regulations) and are designated by the letter T in the classification code.

Packagings, discarded, empty, uncleaned

A new Class 9 entry **UN 3509**, **packagings**, **discarded**, **empty**, **uncleaned** has been created which can only be used for packagings, large packagings or IBCs, or parts thereof, which have contained dangerous goods which are carried for disposal, recycling or recovery of their material, other than reconditioning, repair, routine maintenance, remanufacturing or reuse and which contain only residues of dangerous goods. The entry has been accompanied by a **new special provision 663** which provides the scope and general provisions which apply. New special packing provisions **BB3** and **LL1** have been added under packing instructions IBC08 and LP02 respectively. For carriage in bulk, only closed bulk containers (code BK2) can be used.

Note: In the 2014 edition of the IMDG Code the entry for UN No. 3509 has associated with it special provision 968 which states that *'This entry shall not be used for sea transport. Discarded packaging shall meet the requirements of 4.1.1.11'*. UN No. 3509 was introduced into the Model Regulations to enable the Joint Meeting to establish transport conditions for European land transport and to help the European chemical industry and waste recyclers to comply with the European requirements for the collection and recycling of waste. The Model Regulations left it for the competent authorities of the different modes of transport to regulate the conditions of transport. The Report of the Editorial and Technical Group of the IMO Sub-Committee on Dangerous Goods, Solid Cargoes and Containers (DSC 18/7/1) noted that the group took into consideration a Chinese document proposing that, for maritime mode (IMDG Code), the requirement for transport of packaging waste with residues of dangerous goods should only be applied for short sea transport, and that application of this requirement to ocean voyage should be further considered after more experience is obtained in the future.

Changes to proper shipping names (PSNs)

UN No. 0222 has been amended to read "AMMONIUM NITRATE" with no additional description. There are the consequential insertions of new SP 370 to column (6) and "IBC100" to column (8) and B3 and B17 to column (9a) against IBC100.

The PSN for UN No.0503 has been amended and generalised to "SAFETY DEVICES, PYROTECHNIC", and will include articles which contain pyrotechnic substances or dangerous goods of other classes and are used in vehicles, vessels or aircraft to enhance safety to persons, e.g. air bag inflators, seatbelt pretensioners. Additionally, the PSN for UN No. 3268 has been amended and generalised to "SAFETY DEVICES, electrically initiated".

UN No. 1082 has been amended to include in brackets "(REFRIGERANT GAS R 1113)" in column (2).

UN No. 2212 and 2590 have been renamed as "ASBESTOS, AMPHIBOLE" and "ASBESTOS, CHRYSOTILE" respectively.

The PSN for UN No. 3499 has been amended to read "CAPACITOR, ELECTRIC DOUBLE LAYER (with an energy storage capacity greater than 0.3Wh)".

Miscellaneous Changes

There are many amendments to column 17 of Table A to reflect the alphanumeric code changes of this column, from one set, starting with the letters "VV", to **two sets of codes**, starting with the letters "VC" and the letters "AP".

The special packing provision PP65 has been deleted from the entries for UN Nos. 0082, 0241, 0331 and 0332.

A new SP 662 has been added to a long list of Class 2 substances carried in cylinders not conforming to the provisions of Chapter 6.2 which are used exclusively on board a ship or aircraft.

A long list of substances (mainly belonging to PG I and PG II) can no longer be carried in excepted quantities. It would be advisable to check the DG list to ascertain if substances carried routinely under this exemption can still avail of it.

For entries of UN Nos. 1133, 1139, 1169, 1197, 1210, 1263, 1266, 1286, 1287, 1306, 1866, 1193 and 1999 to which special provision 640F, 640G or 640H is assigned, many provisions in Table A have been deleted including all tank provisions and large packaging provisions, and **a new special provision BB4** under IBC02 has been added to prohibit the use of IBCs with a capacity of greater than 450 litres.

UN Nos. 1202, 1203, 1223, 1268, 1863 and 3475 have had the new SP 664 in relation to additive devices added to column (6).

UN Nos. 1210, 1263, 3066, 3469 and 3470 have a new SP 367 in relation to paint and paint-related material in column (6).

Articles are not assigned a packing group so column (4) has been amended to remove the PG for various articles.

A new SP 375 has been added to column (6) of entries UN Nos. 3077 and 3082 to provide an additional exemption for these substances carried in quantities of 5 Kg or 5 litres or less.

The entries for lithium cells and batteries UN Nos. 3090, 3091, 3480 and 3481 have been amended to include two new special provisions 376 and 377 and to replace P903a and P903b with new packing instructions P908, P909, LP903 and LP904.

The elevated temperature substances UN Nos. 3256, 3257 and 3258 have had SP 580 deleted.

UN No. 3375, AMMONIUM NITRATE EMULSION or SUSPENSION or GEL, has had P099 and IBC99 in column (8) replaced by new packing instruction P505 and IBC02, with a new special packing instruction B16 added against IBC02.

A new special provision in column (11), TP41 has been applied to the organometallic substances UN Nos. 3393 through to 3399, which allows the 2.5 year internal examination to be waived under certain conditions with the agreement of the competent authority.

Chapter 3.3 Special Provisions

A total of 14 new special provisions have been added to this chapter, 16 have been amended and 3 have been deleted. Details regarding new and amended special provisions are provided below according to the relevant substances or groups of substances, and some miscellaneous new and amended special provisions are provided under 'miscellaneous special provision changes'.

Lithium batteries

Special provision 636(b) which applies to the carriage of lithium batteries handed over for disposal or recycling as far as the intermediate processing facility, has been amended to provide details of watt hour rating and lithium content of individual lithium ion cells and batteries and individual lithium metal cells and batteries respectively, and provides new marking for the packages. The special provision refers to new packing instruction P909 and has a **new note** to explain how to assess the total quantity of lithium cells and batteries in a battery mix by means of a statistical method included in the quality assurance system.

A new special provision 376 has been created to address the carriage of lithium ion and lithium metal cells and batteries that have been identified as being damaged or defective. It includes a

description of what constitutes damaged or defective cells or batteries, describes how the packages must be marked, and packaged in accordance with new packing instructions P908 or LP904 as appropriate.

New special provision 377 applies to the carriage of lithium ion and lithium metal cells and batteries for the purposes of disposal or recycling, and describes how the packages must be marked, and packaged in accordance with new packing instruction P909.

Special provision 661 has been deleted as it has been superseded by special provision 376 above.

Additive Devices

New special provision 664 has been created with details of the applicable provisions when substances carried in fixed tanks or demountable tanks are equipped with additive devices. It includes a paragraph to describe what is (and isn't) considered to be an additive device.

The list of requirements includes those for:

- construction and use of the means of containment
- tank approval
- testing for the additive devices
- transport document, training, placarding and marking

See also transitional measure 1.6.3.44.

Asymmetric capacitors

Special provision 372 has been introduced to provide the conditions required for a new entry in the dangerous goods list, UN No. 3508, CAPACITOR, ASYMMETRIC, with an energy storage capacity greater than 0.3Wh. Capacitors with energy storage of 0.3Wh or less are not subject to ADR.



Packagings, discarded, empty, uncleaned

Special provision 663 has been introduced to provide the scope and provisions required for new entry in the dangerous goods list, UN No. 3509, PACKAGINGS, DISCARDED, EMPTY, UNCLEANED, which can only be used for packagings which have been emptied to the extent that only residues of dangerous goods adhering to the packaging parts are present when they are handed over for

carriage. The scope is very clear as to which substances and classes of substances this entry cannot be applied. See also 'new entries' to the Dangerous Goods List in Chapter 3.2 for more detail in relation to this entry.

EHS substances

A new special provision 375 has been added for UN Nos. 3077 and 3082 to provide an additional exemption for these substances when carried in quantities of 5 Kg or 5 litres or less, in single or in combination packagings. This exemption goes further than the limited quantities exemption, allowing such substances to be carried in packagings with only some provisions of ADR Section 4.1.1 applying.

Ammonium Nitrate

New special provision 370 has been generated to provide supporting clarification in relation to entry UN No. 0222 which has been amended to read "AMMONIUM NITRATE" with no additional description.

Paint and paint related material

New special provision 367 lists the proper shipping names to be used on documentation accompanying consignments of paint, paint related material and printing ink related material in mixed packages.

Neutron radiation detectors

New special provision 373 provides the conditions under which neutron radiation detectors containing non-pressurised boron trifluoride gas may be carried. The special provision accompanies the entry for **UN No. 1008, BORON TRIFLUORIDE**, toxic gas, Division 2.3. When non-pressurised boron trifluoride gas is carried in such neutron radiation detectors packing instruction P200 is not applicable.

Uranium hexafluoride

A new special provision 369 has been generated to accompany new entry **UN No. 3507 URANIUM HEXAFLUORIDE, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE,** less than 0.1 Kg per package, nonfissile or fissile excepted, which allows this radioactive material in an excepted package possessing corrosive properties to be classified as Class 8 with a radioactive material subsidiary risk so long as the conditions specified in 2.2.7.2.3 and 2.2.7.2.4 are met.

A consequential new special provision 368 has been generated to accompany entry UN No. 2910, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE – LIMITED QUANTITY OF MATERIAL to exclude uranium hexafluoride from the entry.

Fire extinguishers

Special provision 225 that accompanies entry UN No. 1044, FIRE EXTINGUISHERS, with compressed or liquefied gas, has been amended to clarify the scope of the entry and to stipulate that the fire extinguishers shall be manufactured, tested, approved and labelled according to the 'provisions applied in the country of manufacture' (the meaning of this phrase is provided as a **note**).

A consequential amendment has also been made to special provision 594 which accompanies UN No. 1044 and UN No. 3164, ARTICLES, PRESSURISED, PNEUMATIC, or HYDRAULIC, containing non-flammable gas.

Safety devices

Special provisions 235, 280 and 289 which accompany entries UN No. 0503, SAFETY DEVICES, PYROTECHNIC, Class 1 and UN No. 3268, SAFETY DEVICES, electrically initiated, Class 9, have been amended to reflect the revised proper shipping names for the two entries. The special provisions 235 and 280 provide examples for each of the different types of safety devices, which are used to enhance safety in vehicles, vessels and aircraft.

Miscellaneous special provision changes

Special provision 172 for radioactive material with subsidiary risk(s) has been amended to clarify the provisions for such consignments in relation to package marking and documentation.

Special provision 251 has been amended to allow packages containing CHEMICAL KITS or FIRST AID KITS (UN No. 3316) which contain only dangerous goods to which no packing group is assigned to have no requirement for packing group assignment on the transport document.

Special provisions 582 and 583 for mixtures of, respectively, **refrigerant gases** (UN No. 1078, REFRIGERANT GAS, N.O.S. such as mixture F1, mixture F2 or mixture F3) and **hydrocarbon gas mixtures** (UN No. 1965, HYDROCARBON GAS MIXTURE, LIQUEFIED, N.O.S. such as mixtures A, A01, A02, A0, A1, B1, B2, B or C) have been redesigned to provide the information in a more accessible, tabular form.

A new special provision 371 has been inserted providing detailed requirements for articles containing a small pressure receptacle with a release device.

The **footnote** in special provision 660 concerning the carriage of fuel gas containment systems has been amended to include motor vehicles using **liquefied natural gas (LNG)** in their propulsion systems.

A new special provision 662 applies to cylinders used exclusively on board a ship or aircraft and not conforming to the provisions of Chapter 6.2, which may be used for the purposes of filling, inspection and return if designed and constructed according with a standard recognised by the competent authority of the country of approval.

Special provisions 580 and 585 have been deleted, the latter of which (provision for Cinnabar, the common ore of mercury) has been replaced by new special provision 66.

Chapter 3.4 Limited Quantities

Section 3.4.7 has been amended to include a section heading 'marking for packages containing limited quantities' and has been divided up into subsections 3.4.7.1 and 3.4.7.2 to improve clarity regarding the provisions. The figure has been given a number and dimensions are now included.



Marking for packages containing limited quantities

Some editorial amendments have been made to subsection 3.4.9 and new text has been added to 3.4.10 regarding the marking of goods in limited quantities.

NOTE: Similar figure and text improvements to those made in subsection 3.4.7 above have been made in subsequent sections of the ADR (these will not necessarily be mentioned in later stages of this report):

- Section 3.4.8 marking for packages containing limited quantities conforming to Part 3, Chapter 4 of the ICAO Technical Instructions
- Subsection 3.5.4.2 Excepted quantities mark
- Subsection 4.1.4.1, P650 marking for packages containing UN No. 3373, BIOLOGICAL SUBSTANCE, CATEGORY B
- Subsection 4.1.4.1, P904 marking for packages containing UN No. 3245, GENETICALLY MODIFIED MICROORGANISMS or ORGANISMS in refrigerated liquid nitrogen
- Subsection 5.2.1.8.3 EHS mark
- Subsection 5.2.1.9.1 orientation arrow marks
- Subsection 5.2.2.2.1.1 provisions for labels (more detail provided later)
- Subsection 5.3.1.7.1 specifications for placards
- Section 5.3.3 elevated temperature substance mark
- Subsection 5.5.2.3.2 the fumigation warning mark
- Subsection 5.5.3.6.2 the warning mark for vehicles and containers containing substances used for cooling and conditioning purposes
- Subsection 6.5.2.2.2 the symbols for maximum permitted stacking loads for IBCs
- Subsection 6.6.3.3 the symbols for maximum permitted stacking loads for large packagings

Part 4: Packing and Tank Provisions

Chapter 4.1 Packing provisions – use of packagings

A new paragraph 4.1.1.5.2 has been inserted to allow the use of supplementary packaging within outer packagings provided that all relevant requirements of the relevant packing instructions are met, including the use of additional cushioning where appropriate.

A **new note** has been added to Section 4.1.11 to refer to the option of carrying empty packagings under UN No. 3509.

The definition of "L" has been amended in subsection 4.1.3.1 to include "LL", special packaging provisions specific to ADR.

New packing instructions

The following new packing instructions have been added to subsection 4.1.4.1:

P208 applies to Class 2 adsorbed gases (the existing P208 has been renumbered as P209).

P505 applies to UN No. 3375, AMMONIUM NITRATE EMULSION or SUSPENSION or GEL, intermediate for blasting explosives, liquid and solid.

P805 applies to new UN No. 3507, URANIUM HEXAFLUORIDE, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE.

P908 applies to damaged or defective lithium ion and lithium metal cells and batteries, including those contained in equipment, of UN Nos. 3090, 3091, 3480 and 3481.

P909 applies to UN Nos. 3090, 3091, 3480 and 3481 carried for disposal or recycling. This packing instruction is provided with the consequential deletion of packing instructions **P903a and P903b** for used cells and batteries.

LP903 applies to a single battery, including a battery contained in equipment, of UN Nos. 3090, 3091, 3480 and 3481.

LP904 applies to damaged or defective lithium ion and lithium metal cells and batteries, including those contained in equipment, of UN Nos. 3090, 3091, 3480 and 3481.

Miscellaneous amendments to packing instructions

P003 has been amended to include a new special packing provision **PP91** to authorise the carriage of large fire extinguishers unpackaged, with reference to what is meant by large fire extinguishers as provided in amended special provision 225. Additionally, a new special packing provision **RR9** has been added to provide for empty packagings carried under new UN No. 3509.

Some editorial amendments have been made to packing instructions P116, P131 and P137.

P200 for cylinders, tubes, pressure drums and bundles of cylinders has been amended to a significant extent. Along with various editorial adjustments, new provisions have been added under Special Packing provisions, paragraph (10) and a new paragraph (13) has been added.

Under **Special Packing Provision (10)**, two new paragraphs "ua" and "va" have been added under "periodic inspection" after "u" and "v" respectively, allowing the interval for periodic tests to be extended to 15 years for aluminium alloy cylinders and certain types of seamless steel cylinders, and bundles of such cylinders, so long as the provisions of new paragraph (13) are complied with.

New paragraph (13) outlines the provisions required for the extension of the periodic inspection interval for aluminium alloy and seamless steal cylinders, and bundles of such cylinders, to be granted by the competent authority. The paragraph outlines the general provisions, operational provisions, provisions for qualification and periodic inspection, and the marking required for such cylinders or bundles of such cylinders.

Consequential amendments arising from these new provisions have been made to Tables 1 and 2 of packing provision P200, along with some editorial amendments in relation to UN Nos. 1082 and 1058 (Table 2).

P203 for class 2 refrigerated liquefied gases has been amended to include a new sub-paragraph under paragraph (8) to provide for inspection and test frequencies for non-UN closed cryogenic receptacles.

P404 for pyrophoric solids has been amended under "combination packagings" to include glass receptacles as inner packagings and a maximum net mass for outer packagings.

Editorial amendments have been made to P501, P502, P504 and P802 (3) with respect to the description of "composite packagings".

P901 which applies to UN No. 3316, CHEMICAL KIT or FIRST AID KIT, has been amended to stipulate a packing group II performance level for packages containing kits which contain only dangerous goods to which no packing group is assigned (see also amended special provision 251 regarding documentation for such kits).

P906 which applies to PCBs and polyhalogenated biphenyls or terphenyls, solid and liquid, has been amended to broaden the packaging instructions for transformers and condensers and other devices.

IBCs and Large Packagings

Various minor editorial amendments have been made to the packaging provisions for IBCs (ADR 4.1.4.2) and large packagings (ADR 4.1.4.3), and the more significant amendments are listed below.

Under **IBC02** two new special provisions have been added, **B16** to provide that Competent Authority approval is required for the carriage of UN No. 3375 in certain types of IBC, and **BB4** for specific UN numbers to prohibit the use of IBCs with a capacity of greater than 450 litres (see also section covering amendments to the Dangerous Goods List, Chapter 3.2).

In **IBC08** a new "Special packing provision specific to RID and ADR" has been added, **BB3**, which lists the conditions for the packaging of UN No. 3509, PACKAGINGS, DISCARDED, EMPTY, UNCLEANED, under this provision.

UN No. 0222, AMMONIUM NITRATE with more than 0.2% combustible substances, must now be packaged in accordance with the provisions of **IBC100**, with two associated new special packing provisions, **B3** and **B17**.

In **LP02** a new "Special packing provision specific to RID and ADR" has been added, **LL1**, which lists the conditions for the packaging of UN No. 3509, PACKAGINGS, DISCARDED, EMPTY, UNCLEANED, under this provision.

Special packing provisions for goods of Class 2 and goods of other classes assigned to packing instruction P200 (Section 4.1.6)

The standards in subsection 4.1.6.15 has been amended and updated.

Special packing provisions for goods of Class 7 (Section 4.1.9)

Various editorial amendments have been made to this section, including a new title, "Special packing provisions for radioactive material", with new paragraph 4.1.9.1.7 with consequential renumbering of paragraphs. Amendments have been made in paragraphs 4.1.9.2.2 through to 4.1.9.2.5 and subsection 4.1.9.3 has been simplified for packages containing fissile material.

Chapter 4.2 Use of portable tanks and UN MEGCs

The header to the tabulated portable tank instructions for T1 -T22 (subsection 4.2.5.2.6) has been amended to include Class 1 substances. **Footnote 'd'** in tank instruction T23 has been amended.

In subsection 4.2.5.3 special provision TP32 has been amended and a new portable tank special provision **TP41** has been added.

Chapter 4.3 Use of ADR tanks

Paragraph 4.3.2.2.1 which provides formulas for the calculation of degree of filling of tanks has been amended to include environmentally hazardous substances, to take into account the recent revision of the classification criteria for such substances (introduced to the ADR in 2009 and 2011).

Chapter 4.5 Use of Vacuum operated waste tanks

Subsection 4.5.1.1 has been amended and a new subsection 4.5.1.2 added to provide for the carriage of non-waste substances under the same conditions as wastes.

A new subsection 4.5.2.6 has been added to include precautions to be taken to avoid ignition of flammable liquids in vacuum pumps/exhauster units.

Part 5: Consignment Procedures

Chapter 5.1 General Provisions

Section 5.1.2 on the use of OVERPACKS has been amended to introduce a minimum size for the marking of overpacks [subsection 5.1.2.1. (a)] and to update the rules with respect to the use of orientation arrows [subsection 5.1.2.1. (b)]. The former has a new transitional measure 1.6.1.31 associated with it.

Various editorial amendments have been made in Section 5.1.5, general provisions for Class 7.

Chapter 5.2 Marking and Labelling

Subsection 5.2.1.3 on the use of salvage packagings has been amended to introduce a minimum size for the marking of the word "SALVAGE". This amendment has an associated new transitional measure 1.6.1.32.

Subsection 5.2.1.7 on special marking requirements for goods of class 7, amended to "special marking requirements for radioactive material", has been subject to various editorial changes, the most notable being the introductory sentence in paragraph 5.2.1.7.5 regarding package design approval.

Further editorial amendments have been made to paragraph 5.2.2.1.11 which covers special provisions for the labelling of radioactive material.

Paragraph 5.2.2.2.1.1 on the provisions for labels has been amended to include a pictorial depiction of the label, Figure 5.2.2.2.1.1 (provided below), and three new subdivisions for greater clarity.

5.2.2.2.1.1 Labels shall be configured as shown in Figure 5.2.2.2.1.1.



Class/division label

* The class or for Classes 4.1, 4.2 and 4.3, the figure "4" or for Classes 6.1 and 6.2, the figure "6", shall be shown in the bottom corner.

** Additional text/numbers/letters shall (if mandatory) or may (if optional) be shown in this bottom half.

*** The class symbol or, for divisions 1.4, 1.5 and 1.6, the division number and for Model No 7E the word "FISSILE" shall be shown in this top half.".

Chapter 5.3 Placarding and marking

Clarification of the placarding required for vehicles carrying Class 7 is provided in paragraph 5.3.1.1.3.

In paragraph 5.3.2.1.1, an additional sentence is added to stipulate that if a detached trailer is marked in accordance with paragraph 5.3.2.1.3 that the orange-coloured plate must correspond to the most hazardous substance carried in the tank.

The second sentence of paragraph 5.3.2.2.1 regarding the specifications for orange coloured plates has been expanded to enhance clarity, as has Section 5.3.6 regarding the environmentally hazardous substance (EHS) mark.

Chapter 5.4 Documentation

In the section on the transport document and related information, a new paragraph 5.4.1.1.19 has been added to cover new special provisions for the carriage of packagings, discarded, empty, uncleaned (UN 3509).

Section 5.4.2 on the large container or vehicle packing certificate, **footnote '5'**, referring to the IMDG Code, subsection 5.4.2.1, paragraph .8, has been amended to refer to the new provisions in relation to substances presenting a risk of asphyxiation (subsection 5.5.3.6 of both the IMDG Code and the ADR).

The last page of the 'Instructions in Writing According to ADR' in Section 5.4.3 have been amended to remove the standard for the warning vest and **footnote 'b**' has been deleted. An associated transitional measure 1.6.1.35 allows current instructions in writing to continue to be used until 30 June 2017.

Subsection 5.4.3.4, on the first page of the instructions in writing, the 2nd indent has been amended to include **'electronic cigarettes or similar devices'** as potential sources of ignition. Similar amendments have been made in sections 7.5.9, 8.3.5 and 8.5 S1 (3).

Chapter 5.5 Special Provisions

Significant changes have been made to Section 5.5.3 on special provisions applicable to packages and containers containing substances presenting a **risk of asphyxiation**. Among various editorial amendments, two new paragraphs have been added to the scope, the first, 5.5.3.1.4, to clarify what is meant by vehicles and containers 'containing' such substances and the second, 5.5.3.1.5, to

provide clarity as to when subsections 5.5.3.6 and 5.5.3.7 do and do not apply, i.e. such paragraphs apply when there is deemed to be, on assessment of the risk, an <u>actual risk</u> of asphyxiation.

Part 6: Requirements for Construction and Testing of Packagings, Tanks and Bulk Containers

Chapter 6.1 Construction and testing of packages

Section 6.1.3 on package marking has been amended [subsection 6.1.3.1(e)] to allow greater flexibility in relation to the marking of the year and the month of manufacture of packages of types 1H and 3H (plastics drums and jerricans). See also paragraph 6.5.2.2.4 for a similar amendment in relation to the marking of the plastics inner receptacles of composite IBCs.

Chapter 6.2 Construction and testing of pressure receptacles

Paragraph 6.2.1.1.5 has been amended to refer to the test pressure for adsorbed gases and the related new packing instruction P208.

UN Pressure Receptacles

All of the tables in subsections 6.2.2.1 and 6.2.2.3 have been amended to include a third column which indicates the **latest permissible date for the manufacture** of new pressure receptacles or service equipment according to the relevant standard. A similar third column has been added to the standards for periodic inspection and testing in subsection 6.2.2.4. Various new standards have been added to the tables where applicable.

Two new paragraphs 6.2.2.1.6 and 6.2.2.1.7 have been added to provide the standard applicable to the design, construction, initial inspection and testing of UN bundles of cylinders and cylinders for adsorbed gases respectively.

A new subsection 6.2.2.10 has been added, which lists in detail the requirements for the marking of bundles of cylinders. The individual cylinder will continue to be marked according to 6.2.2.7; however, the bundles of cylinders must now be marked on a plate attached permanently to the frame of the bundle of cylinders. The existing 6.2.2.10 listing the applicable procedures to be used is renumbered as 6.2.2.11.



Non-UN Pressure Receptacles

New paragraphs 6.2.3.1.5 and 6.2.3.5.2 have been added, respectively, to prohibit the fitting of fusible plugs on acetylene cylinders and to provide for the periodic inspection and test for closed cryogenic receptacles.

Paragraph 6.2.3.9.7 detailing the marking of bundles of cylinders has been amended to bring in line with the marking of UN cylinders as detailed in new subsection 6.2.2.10 described above, minus the United Nations packaging symbol. Additional markings for such bundles of cylinders are provided for in paragraph 6.2.3.9.7.3.

Various editorial amendments have been made and new standards added throughout Section 6.2.4, in particular to the tables in 6.2.4.1 and 6.2.4.2, so it is advisable to check these tables as applicable for new and updated standards in relation to the design, construction, initial inspection and test, periodic inspection and testing of non-UN pressure receptacles.

Aerosol dispensers, gas cartridges and fuel cell cartridges

Paragraph 6.2.6.1.5 has been amended to distinguish between the internal pressure and filling requirements of aerosol dispensers and those of small receptacles containing gas, which must meet the requirement of P200.

Subsection 6.2.6.3 on the 'Tightness (leakproofness) test' for aerosol dispensers, gas cartridges and fuel cell cartridges has been redesigned, reworded and clarified, primarily to provide a clear distinction between the hot water bath test as provided in 6.2.6.3.1, and alternative test methods as provided in 6.2.6.3.2., the latter of which require the approval of the competent authority subject to additional requirements.

Chapter 6.4 Construction, Testing and Approval of Radioactive Material and Packages

A new subsection 6.4.2.11 has been added under 'General requirements' to provide for package shielding so as to ensure that the radiation levels at any point on the external surface are within defined limits.

Requirements for packages containing fissile material

Substantial amendments have been made to subsection 6.4.11.2 to include calculations to determine whether fissile material can be excepted from the requirements of 6.4.11.4 to 6.4.11.14. New subsection 6.4.11.3 provides for plutonium in particular.

Applications and approvals for radioactive material carriage

Two new subsections 6.4.23.9 and 6.4.23.10 have been added, respectively, to list the requirements for applications for approval of design for fissile material excepted from 'FISSILE' classification and for approval of alternative activity limits for exempt consignments of instruments or articles.

Two new subsections, 6.4.23.14 and 6.4.23.18, have been added to the list of information which must be included in a certificate of approval issued by a competent authority for, respectively,

material excepted from classification as 'FISSILE' and alternative activity limits for exempt consignments of instruments or articles.

Many editorial amendments have also been made throughout section 6.4.23.

Chapter 6.5 Construction and testing of IBCs

Paragraph 6.5.2.2.2 has been amended to provide additional clarity with respect to the symbol for indicating the maximum permissible stacking load.

Paragraph 6.5.2.2.4 on marking has been amended to allow greater flexibility in relation to the marking of the year and the month of manufacture of plastics inner receptacles of composite IBCs. See also 6.1.3.1 (e) for similar amendment in relation to the marking of packages of types 1H and 3H (plastics drums and jerricans).

Chapter 6.6 Construction and testing of Large Packagings

Subsection 6.6.3.3 has been amended to provide additional clarity with respect to the symbol for indicating the maximum permissible stacking load applicable to large packagings.

Large salvage packagings

The code for designating types of large packagings has been amended in subsection 6.6.2.2 to include a new letter "T" to signify a large salvage packaging. An example of the use of such a code is provided in subsection 6.6.3.2, fourth example.

A new paragraph 6.6.5.1.9 has been added to provide the test requirements for large salvage packagings.

Chapter 6.7 Construction and Testing of Portable Tanks and UN MEGCs

General design and construction requirements

Two new paragraphs 6.7.2.2.9.1 and 6.7.2.2.17 have been added to provide for, respectively, the internal pressure for portable tanks intended for use offshore, and for thermal insulation that is directly in contact with shells intended for substances carried at elevated temperature.

Service equipment

Four new paragraphs 6.7.2.5.12 – 6.7.2.5.15 have been inserted with additional requirements for tank heating systems and associated equipment.

Inspection and testing

Where tanks are only used for the carriage of solid substances that do not liquefy during carriage (other than T or C substances) the 5-year hydraulic pressure test may be replaced by another suitable pressure test, subject to competent authority approval, as detailed in 6.7.1.19.4.

Chapter 6.8 ADR Tanks

A **new note** has been added under the general chapter heading to refer to special provision 664 in relation to additive devices.

Items of equipment

The second paragraph of 6.8.2.2.3 has been amended to explain what is meant by the shell of the tank being 'explosion pressure shock resistant'. A similar amendment has been made for vacuum operated waste tanks used for the carriage of flammable wastes, subsection 6.10.3.8(b).

Design and construction

Various new standards and amended dates for applicability for new type approvals or for renewals have been added to the table in 6.8.2.6.1 so it is advisable to check this table as applicable for new and updated standards in relation to the design and construction of ADR tanks.

Periodic Inspection

A new special provision **TT11** has been added in Section 6.8.4 (d) for the testing of fixed tanks and demountable tanks used exclusively for the carriage of LPG, to allow specified **non-destructive testing (NDT)** techniques in place of the hydraulic pressure test at the time of the periodic inspection, if such alternative techniques used either singularly or in combination are deemed suitable by the competent authority.

Chapter 6.10 Vacuum operated waste tanks

See above, Chapter 6.8, second paragraph.

Part 7: Conditions of Carriage, Loading, Unloading and Handling

Chapter 7.3 Carriage in bulk

The alphanumeric codes for the special provisions for carriage in bulk as indicated in column (17) of the dangerous goods list, have been changed from codes starting with the letters "VV" to **two sets of codes**, starting with the letters "VC", indicating the primary provision, which may be supplemented by an additional provision identified by the letters "AP". Subsection 7.3.1.1 (b) has been amended to reflect this change.

Section 7.3.3 concerning provisions for carriage in bulk when 7.3.1.1. (b) Is applied, has been substantially amended to reflect the new codes. Subsection 7.3.3.1 provides the meanings for the 'VC bulk codes' (VC1, VC2 and VC3) and subsection 7.3.3.2 provides the additional 'AP codes' which are listed according to class of dangerous goods (AP1 to AP10).

Chapter 7.5 Loading, unloading and handling

Mixed loading prohibition

The **note 'c'** after the table in subsection 7.5.2.1 has been amended to take account of the new proper shipping names for UN Nos. 0503 and 3268 (see also amendments in Chapter 3.2, Dangerous Goods List).

Additional provisions applicable to Class 7

Various editorial amendments have been made to ADR 7.5.11 CV33, provision for radioactive material, including a new paragraph (4.3) for fissile material.

A new CV37 has been inserted to include additional cooling, containment and marking provisions for aluminium smelting and aluminium remelting by-products.

Part 8: Vehicle Crews, Equipment, Operation and Documentation

Chapter 8.1 Transport units and equipment on board

Firefighting equipment

A new requirement to carry out inspections of fire extinguishers in accordance with authorised national standards has been added to subsection 8.1.4.4, second paragraph.

Chapter 8.2 Training of vehicle crew

Certificate of driver's training

A new paragraph 8.2.2.8.6 has been added to confer an obligation on Contracting Parties to provide an example of the national model of the driver's training certificate to the UNECE secretariat, which will in turn make the information available to all Contracting Parties.

Health & Safety Authority

January 2015