

**Economic and Social Council**

Distr.: General
5 March 2012
English
Original: English and French

Economic Commission for Europe**Inland Transport Committee****Working Party on the Transport of Dangerous Goods****European Agreement concerning the International Carriage
of Dangerous Goods by Road (ADR)****Draft amendments to annexes A and B of ADR**

At its ninety-first session, the Working Party on the Transport of Dangerous Goods requested the secretariat to prepare a consolidated list of all the amendments which it had adopted for entry into force on 1 January 2013 so that they could be made the subject of an official proposal in accordance with the procedure set out in article 14 of ADR, which, following usual practice, the Chairperson would be responsible for transmitting to the depositary through his Government. The notification would have to be issued no later than 1 July 2013, with a reference to 1 January 2013 as the scheduled date of entry into force (see ECE/TRANS/WP.15/212, paragraph 65).

This document* contains the requested consolidated list of amendments adopted by the Working Party at its eighty-eighth, eighty-ninth, ninetieth and ninety-first sessions (see ECE/TRANS/WP.15/206, Annex II, ECE/TRANS/WP.15/208, Annex I, ECE/TRANS/WP.15/210, Annex II and ECE/TRANS/WP.15/212, Annex I).

* For technical reasons, the paper version of this document is printed in black and white. For page 56 the electronic version should be consulted. For the Warning mark in 5.5.3.6 the text should be in red and the symbol in white and grey on a black background.

Part 1

Chapter 1.1

1.1.3.6.2 In the first indent, at the end, after "and 0500" add "and except for Class 7 excepted packages of UN Nos. 2910 and 2911 if the activity level exceeds the A₂ value".

1.1.3.6.3 For transport category 1, in column (2), for Class 2, add the following new line at the end:

"chemicals under pressure: UN Nos. 3502, 3503, 3504 and 3505".

1.1.3.6.3 For transport category 2, in column (2), for Class 2, add the following new line at the end:

"chemicals under pressure: UN No. 3501".

1.1.3.6.3 For transport category 3, in column (2), for Class 2, add the following new line at the end:

"chemicals under pressure: UN No. 3500".

1.1.3.6.3 For transport category 4, in column (2), for Class 9, replace "UN No. 3268" with "UN Nos. 3268 and 3499".

Insert the following new sub-sections:

"1.1.3.8 (Reserved)

1.1.3.9 Exemptions related to dangerous goods used as a coolant or conditioner during carriage

When used in vehicles or containers for cooling or conditioning purposes, dangerous goods that are only asphyxiant (which dilute or replace the oxygen normally in the atmosphere) are only subject to the provisions of section 5.5.3."

1.1.4.3 Amend the text after the heading to read as follows:

"IMO type portable tanks (types 1, 2, 5 and 7) which do not meet the requirements of Chapters 6.7 or 6.8, but which were built and approved before 1 January 2003 in accordance with the provisions of the IMDG Code (Amdt. 29-98) may continue to be used provided that they meet the applicable periodic inspection and test provisions of the IMDG Code¹. In addition, they shall meet the provisions corresponding to the instructions set out in columns (10) and (11) of Table A in Chapter 3.2 and the provisions of Chapter 4.2 of ADR. See also 4.2.0.1 of the IMDG Code."

Insert a new section 1.1.5 to read as follows:

"1.1.5 Application of standards

Where the application of a standard is required and there is any conflict between the standard and the provisions of ADR, the provisions of ADR take precedence."

¹ The International Maritime Organization (IMO) has issued "Guidance on the Continued Use of Existing IMO Type Portable Tanks and Road Tank Vehicles for the Transport of Dangerous Goods" as circular DSC.1/Circ.12 and Corrigenda. The text of this guidance can be found on the IMO website at: www.imo.org.

Chapter 1.2

1.2.1 In the Note in the definition of "*Applicant*", replace "an operator" with "a tank-container operator".

1.2.1 The amendments to the definition of "*Box*" and of "*Bag*" do not apply to the English text.

1.2.1 In the definition of "*Bulk container*", replace "'*Bulk containers*' means containment systems" with "'*Bulk container*' means a containment system". Replace "Bulk containers are" with "A bulk container is". In the second indent, replace "modes of carriage" with "means of transport".

1.2.1 In the NOTE to the definition of "*Cargo transport unit*", replace "of Chapter 5.5" with "of 5.5.2".

1.2.1 In the definition of "*Collective entry*", replace "well defined" with "defined".

1.2.1 In the definition of "*Combination packaging*", replace "for transport purposes" with "for carriage purposes".

1.2.1 In the definition of "*GHS*", replace "third" with "fourth" and "ST/SG/AC.10/30/Rev.3" with "ST/SG/AC.10/30/Rev.4".

1.2.1 In the definition of "*Manual of Tests and Criteria*", amend the text in parentheses to read "ST/SG/AC.10/11/Rev.5 as amended by document ST/SG/AC.10/11/Rev.5/Amend.1".

1.2.1 In the definition of "*Maximum permissible gross mass*", in (a), amend the text in parentheses to read "for IBCs".

1.2.1 Delete the definition of "*Maximum permissible load*".

1.2.1 In the definition of "*Pressure receptacle*", replace "and bundles of cylinders" with ", bundles of cylinders and salvage pressure receptacles".

1.2.1 In the definition of "*Salvage packaging*", replace "or leaking" with "leaking or non-conforming".

1.2.1 In the definition of "*UN Model Regulations*", replace "sixteenth" with "seventeenth" and "(ST/SG/AC.10/1/Rev.16)" with "(ST/SG/AC.10/1/Rev.17)".

1.2.1 In the definition of "*Battery-vehicle*", in the first sentence, replace "to a transport unit" by "to this vehicle".

1.2.1 Add the following new definitions:

"*Liquefied Petroleum Gas (LPG)*" means a low pressure liquefied gas composed of one or more light hydrocarbons which are assigned to UN Nos. 1011, 1075, 1965, 1969 or 1978 only and which consists mainly of propane, propene, butane, butane isomers, butene with traces of other hydrocarbon gases;

NOTE 1: *Flammable gases assigned to other UN numbers shall not be regarded as LPG.*

NOTE 2: *For UN No. 1075 see NOTE 2 under 2F, UN No. 1965, in the table for liquefied gases in 2.2.2.3."*

"*Net explosive mass (NEM)*" means the total mass of the explosive substances, without the packagings, casings, etc. (*Net explosive quantity (NEQ)*, *net explosive contents (NEC)*, *net explosive weight (NEW)* or *net mass of explosive contents* are often used to convey the same meaning.);".

"*Salvage pressure receptacle*" means a pressure receptacle with a water capacity not exceeding 1 000 litres into which are placed damaged, defective, leaking or non-conforming pressure receptacle(s) for the purpose of carriage e.g. for recovery or disposal;"

Chapter 1.3

1.3.1 In NOTE 1, replace "see 1.8.3" with "see 1.8.3 instead of this section". In NOTE 2, replace "see Chapter 8.2" with "see Chapter 8.2 instead of this section". Delete NOTE 4.

Chapter 1.4

1.4.2.1.1 (b) After "Furnish the carrier with information and data", insert "in a traceable form".

1.4.2.2.1 (d) Replace "the date of the next test" with "the deadline for the next test". In the Note, replace "the expiry of this date" with "the expiry of this deadline".

1.4.3.3 (f) Amend to read as follows:

"(f) He shall, after filling the tank, ensure that all closures are in a closed position and that there is no leakage;"

Chapter 1.6

1.6.1.1 Replace "2011" and "2010" with "2013" and "2012" respectively.

1.6.1.7 Replace "4.1.1.19" with "4.1.1.21".

1.6.1.21 Amend to read as follows:

"1.6.1.21 Training certificates for drivers conforming to the model applicable until 31 December 2010 issued by Contracting Parties until 31 December 2012, instead of those conforming to the requirements of 8.2.2.8.5, may continue in use to the end of their five year validity."

1.6.1 Add the following new transitional measures:

"1.6.1.24 Lithium cells and batteries manufactured before 1 January 2014 which had been tested in accordance with the requirements applicable until 31 December 2012 but which had not been tested in accordance with the requirements applicable as from 1 January 2013, and appliances containing such lithium cells or batteries, may continue to be carried if all the other applicable requirements are fulfilled."

"1.6.1.25 Packages marked with a UN number in accordance with the provisions of ADR applicable up to 31 December 2012 and which do not conform to the requirements of 5.2.1.1 regarding the size of the UN number and of the letters "UN" applicable as from 1 January 2013 may continue to be used until 31 December 2013, and, for cylinders of 60 litres water capacity or less, until the next periodic inspection but no later than 30 June 2018."

"1.6.1.26 Large packagings manufactured or remanufactured before 1 January 2014 and which do not conform to the requirements of 6.6.3.1 regarding the height of letters, numerals and symbols applicable as from 1 January 2013 may continue to be used. Those manufactured or remanufactured before 1 January 2015 need not be marked with the maximum permitted stacking load in accordance with 6.6.3.3. Such large packagings not

marked in accordance with 6.6.3.3 may still be used after 31 December 2014 but must be marked in accordance with 6.6.3.3 if they are remanufactured after that date."

"1.6.1.27 Means of containment integral to equipment or machinery containing liquid fuels of UN Nos. 1202, 1203, 1223, 1268, 1863 and 3475 constructed before 1 July 2013, which do not conform to the requirements of special provision 363 of Chapter 3.3 applicable as from 1 January 2013, may still be used."

1.6.2.7, 1.6.2.8, 1.6.3.15, 1.6.3.25, 1.6.3.35, 1.6.3.37, 1.6.4.17, 1.6.4.34, 1.6.4.35: Delete the text and replace by "(Deleted)".

1.6.2.11 Amend to read as follows:

"1.6.2.11 Gas cartridges constructed and prepared for carriage before 1 January 2013 for which the requirements of 1.8.6, 1.8.7 or 1.8.8 for the conformity assessment of gas cartridges have not been applied may still be carried after this date, provided all the other applicable provisions of ADR are met."

1.6.2 Add a new transitional measure to read as follows:

"1.6.2.12 Salvage pressure receptacles may continue to be constructed and approved according to national regulations up to 31 December 2013. Salvage pressure receptacles constructed and approved in accordance with national regulations before 1 January 2014 may continue to be used with the approval of the competent authorities of the countries of use."

1.6.3.8 Delete the first paragraph.

1.6.3 Add the following new transitional measures:

"1.6.3.41 Fixed tanks (tank-vehicles) and demountable tanks constructed before 1 July 2013 in accordance with the requirements in force up to 31 December 2012, but which do not, however, meet the marking provisions of 6.8.2.5.2 or 6.8.3.5.6 applicable as from 1 January 2013, may continue to be marked in accordance with the requirements applicable up to 31 December 2012 until the next periodic inspection after 1 July 2013."

"1.6.3.42 For UN No. 2381, the tank code specified in column (12) of Table A of Chapter 3.2 applicable up to 31 December 2012 may continue to be applied until 31 December 2018 for fixed tanks (tank-vehicles) and demountable tanks constructed before 1 July 2013."

1.6.4 Add the following new transitional measures:

"1.6.4.42 Tank-containers constructed before 1 July 2013 in accordance with the requirements in force up to 31 December 2012, but which do not, however, meet the marking provisions of 6.8.2.5.2 or 6.8.3.5.6 applicable as from 1 January 2013, may continue to be marked in accordance with the requirements applicable up to 31 December 2012 until the next periodic inspection after 1 July 2013."

"1.6.4.43 Portable tanks and MECGs manufactured before 1 January 2014 need not comply with the requirements of 6.7.2.13.1 (f), 6.7.3.9.1 (e), 6.7.4.8.1 (e) and 6.7.5.6.1 (d) concerning the marking of the pressure relief devices."

"1.6.4.44 For substances where TP38 or TP39 is assigned in column (11) of Table A of Chapter 3.2, the portable tank instruction prescribed in ADR applicable up to 31 December 2012 may continue to be applied until 31 December 2018."

"1.6.4.45 For UN No. 2381, the tank code specified in column (12) of Table A of Chapter 3.2 applicable up to 31 December 2012 may continue to be applied until 31 December 2018 for tank-containers constructed before 1 July 2013."

1.6.5.4 Replace "2010" with "2012" and replace "2012" with "2014".

1.6.5 Add a new transitional measure 1.6.5.14 to read as follows:

"1.6.5.14 MEMUs which have been approved before 1 July 2013 in accordance with the provisions of ADR in force up to 31 December 2012, but which do not conform to the requirements of 6.12.3.1.2 or 6.12.3.2.2 applicable as from 1 January 2013, may still be used."

Chapter 1.8

1.8.3.3 Amend the fourth indent of the second paragraph to read:

"- the proper training of the undertaking's employees, including on the changes to the regulations, and the maintenance of records of such training;"

1.8.5.1 At the end, add "at the latest one month after the occurrence".

Add a new 1.8.7.2.5 to read as follows:

"1.8.7.2.5 In the case of a modification of a pressure receptacle, tank, battery-vehicle or MEGC with a valid, expired or withdrawn type approval, the testing, inspection and approval are limited to the parts of the pressure receptacle, tank, battery-vehicle or MEGC that have been modified. The modification shall meet the provisions of ADR applicable at the time of the modification. For all parts of the pressure receptacle, tank, battery-vehicle or MEGC not affected by the modification, the documentation of the initial type approval remains valid.

A modification may apply to one or more pressure receptacles, tanks, battery-vehicles or MEGCs covered by a type approval.

A certificate approving the modification shall be issued to the applicant by the competent authority of any Contracting Party to ADR or by a body designated by this authority. For tanks, battery-vehicles or MEGCs, a copy shall be kept as part of the tank record.

Each application for an approval certificate for a modification shall be lodged by the applicant with a single competent authority or body designated by this authority."

Chapter 1.9

1.9.5.2.2 For tunnel category E, after "and 3373" insert "and for all dangerous goods in accordance with the provisions of Chapter 3.4 if the quantities carried exceed 8 tonnes total gross mass per transport unit".

1.9.5.3.6 Amend to read as follows:

"1.9.5.3.6 Tunnel restrictions shall apply to transport units for which an orange-coloured plate marking in accordance with 5.3.2 is required and, for tunnels of category E, they shall apply also to transport units for which a marking in accordance with 3.4.13 is required or carrying containers for which a marking in accordance with 3.4.13 is required.

Tunnel restrictions shall not apply when dangerous goods are carried in accordance with 1.1.3, except when vehicles carrying such goods are marked in accordance with 3.4.13 subject to 3.4.14³."

Chapter 1.10

1.10.3.1 Amend to read as follows:

"1.10.3.1 *Definition of high consequence dangerous goods*

1.10.3.1.1 High consequence dangerous goods are those which have the potential for misuse in a terrorist event and which may, as a result, produce serious consequences such as mass casualties, mass destruction or, particularly for Class 7, mass socio-economic disruption.

1.10.3.1.2 High consequence dangerous goods in classes other than Class 7 are those listed in Table 1.10.3.1.2 below and carried in quantities greater than those indicated therein.

[Insert existing Table 1.10.5 renumbered 1.10.3.1.2, but without the entry for Class 7.]

1.10.3.1.3 For dangerous goods of Class 7, high consequence radioactive material is that with an activity equal to or greater than a transport security threshold of 3 000 A₂ per single package (see also 2.2.7.2.2.1) except for the following radionuclides where the transport security threshold is given in Table 1.10.3.1.3 below.

Table 1.10.3.1.3

Transport security thresholds for specific radionuclides

<i>Element</i>	<i>Radionuclide</i>	<i>Transport security threshold (TBq)</i>
Americium	Am-241	0.6
Gold	Au-198	2
Cadmium	Cd-109	200
Californium	Cf-252	0.2
Curium	Cm-244	0.5
Cobalt	Co-57	7
Cobalt	Co-60	0.3
Caesium	Cs-137	1
Iron	Fe-55	8000
Germanium	Ge-68	7
Gadolinium	Gd-153	10
Iridium	Ir-192	0.8
Nickel	Ni-63	600
Palladium	Pd-103	900
Promethium	Pm-147	400
Polonium	Po-210	0.6
Plutonium	Pu-238	0.6
Plutonium	Pu-239	0.6
Radium	Ra-226	0.4

³ or in accordance with 3.4.10 subject to 3.4.11 of ADR as applicable until 31 December 2010 if the transitional measures of 1.6.1.20 are applied.

<i>Element</i>	<i>Radionuclide</i>	<i>Transport security threshold (TBq)</i>
Ruthenium	Ru-106	3
Selenium	Se-75	2
Strontium	Sr-90	10
Thallium	Tl-204	200
Thulium	Tm-170	200
Ytterbium	Yb-169	3

1.10.3.1.4 For mixtures of radionuclides, determination of whether or not the transport security threshold has been met or exceeded can be calculated by summing the ratios of activity present for each radionuclide divided by the transport security threshold for that radionuclide. If the sum of the fractions is less than 1, then the radioactivity threshold for the mixture has not been met nor exceeded.

This calculation can be made with the formula:

$$\sum_i \frac{A_i}{T_i} < 1$$

Where:

A_i = activity of radionuclide i that is present in a package (TBq)

T_i = transport security threshold for radionuclide i (TBq).

1.10.3.1.5 When radioactive material possesses subsidiary risks of other classes, the criteria of table 1.10.3.1.2 shall also be taken into account (see also 1.7.5)."

1.10.3.2.1 and 1.10.3.3 (twice) Replace "high consequence dangerous goods (see Table 1.10.5)" with "high consequence dangerous goods (see Table 1.10.3.1.2) or high consequence radioactive material (see 1.10.3.1.3)".

1.10.4 After "and 0500" insert "and except for UN Nos. 2910 and 2911 if the activity level exceeds the A_2 value". Add the following new sentence at the end "In addition the provisions of this Chapter do not apply to the carriage of UN No. 2912 RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I) and UN No. 2913 RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECTS (SCO-I)".

1.10.5 Delete. Renumber 1.10.6 as 1.10.5.

1.10.6 (Renumbered 1.10.5) In footnote 2, delete the last sentence ("See also "Guidance and Considerations for the Implementation of INFCIRC/225/Rev.4, the Physical Protection of Nuclear Material and Nuclear Facilities, IAEA-TECDOC-967/Rev.1")."

Part 2

Chapter 2.1

2.1.3.3 In the first sentence, add "meeting the classification criteria of ADR" after "A solution or mixture".

2.1.3.5 Add "meeting the classification criteria of ADR and" after "solutions or mixtures".

2.1.3.5.3 Amend the beginning (before the parenthesis) of subparagraph (h) to read as follows:

"(h) Substances of Class 6.1 meeting the inhalation toxicity criteria of packing group I".

2.1.3.5.5 At the end of the third paragraph, add the following sentence: "However, if it is known that the waste possesses only environmentally hazardous properties, it may be assigned to packing group III under UN Nos. 3077 or 3082."

2.1.3.8 Amend to read as follows:

"2.1.3.8 Substances of classes 1 to 6.2, 8 and 9, other than those assigned to UN Nos. 3077 and 3082, meeting the criteria of 2.2.9.1.10 are additionally to their hazards of classes 1 to 6.2, 8 and 9 considered to be environmentally hazardous substances. Other substances meeting the criteria of no other class, but those of 2.2.9.1.10 are to be assigned to UN Nos. 3077 and 3082 as appropriate."

Chapter 2.2

2.2.1.1.3 Replace "2.2.1.1.8" with "2.2.1.4".

2.2.1.1.5 For Division 1.6, delete "detonating".

2.2.1.1.6 In the description for compatibility group N, delete "detonating".

2.2.1.1.8 Transfer the text of 2.2.1.1.8 in a new sub-section 2.2.1.4 with the following modifications:

In the definition of "ARTICLES, EXPLOSIVE, EXTREMELY INSENSITIVE (ARTICLES, EEI)", delete "detonating" and "(EIDS)".

Insert the following new definition in alphabetical order:

"CARTRIDGES FOR TOOLS, BLANK: UN No. 0014

Article, used in tools, consisting of a closed cartridge case with a centre or rim fire primer with or without a charge of smokeless or black powder but with no projectile."

Add a new 2.2.1.1.8 to read as follows:

"2.2.1.1.8 *Exclusion from Class 1*

2.2.1.1.8.1 An article or a substance may be excluded from Class 1 by virtue of test results and the Class 1 definition with the approval of the competent authority of any ADR Contracting Party who may also recognize an approval granted by the competent authority of a country which is not an ADR Contracting Party provided that this approval has been granted in accordance with the procedures applicable according to RID, ADR, ADN, the IMDG Code or the ICAO Technical Instructions.

2.2.1.1.8.2 With the approval of the competent authority in accordance with 2.2.1.1.8.1, an article may be excluded from Class 1 when three unpackaged articles, each individually activated by its own means of initiation or ignition or external means to function in the designed mode, meet the following test criteria:

(a) No external surface shall have a temperature of more than 65 °C. A momentary spike in temperature up to 200 °C is acceptable;

(b) No rupture or fragmentation of the external casing or movement of the article or detached parts thereof of more than one metre in any direction;

NOTE: Where the integrity of the article may be affected in the event of an external fire these criteria shall be examined by a fire test, such as described in ISO 12097-3.

(c) No audible report exceeding 135 dB(C) peak at a distance of one metre;

(d) No flash or flame capable of igniting a material such as a sheet of 80 ± 10 g/m² paper in contact with the article; and

(e) No production of smoke, fumes or dust in such quantities that the visibility in a one cubic metre chamber equipped with appropriately sized blow out panels is reduced more than 50% as measured by a calibrated light (lux) meter or radiometer located one metre from a constant light source located at the midpoint on opposite walls. The general guidance on Optical Density Testing in ISO 5659-1 and the general guidance on the Photometric System described in Section 7.5 in ISO 5659-2 may be used or similar optical density measurement methods designed to accomplish the same purpose may also be employed. A suitable hood cover surrounding the back and sides of the light meter shall be used to minimize effects of scattered or leaking light not emitted directly from the source.

NOTE 1: If during the tests addressing criteria (a), (b), (c) and (d) no or very little smoke is observed the test described in (e) may be waived.

NOTE 2: The competent authority referred to in 2.2.1.1.8.1 may require testing in packaged form if it is determined that, as packaged for carriage, the article may pose a greater risk."

2.2.2.1.2 Insert a new subdivision at the end to read as follows:

"8. Chemicals under pressure: liquids, pastes or powders, pressurized with a propellant that meets the definition of a compressed or liquefied gas and mixtures thereof."

2.2.2.1.3 At the beginning, replace "(except aerosols)" with "(except aerosols and chemicals under pressure)".

In NOTE 2, at the end, add the following new sentence "For chemicals under pressure (UN Nos. 3500 to 3505), see 2.2.2.1.7."

2.2.2.1.5 At the beginning, replace "(except aerosols)" with "(except aerosols and chemicals under pressure)".

2.2.2.1.5 Under "Flammable gases", replace "ISO 10156:1996" with "ISO 10156:2010".

2.2.2.1.5 Under "Oxidizing gases", replace "ISO 10156:1996 or ISO 10156-2:2005" with "ISO 10156:2010".

2.2.2.1.6 In the first NOTE, replace "or of pyrophoric gases according to packing instruction P200" with "and gases identified as "Considered as pyrophoric" by table note c of Table 2 of packing instruction P200".

Add a new 2.2.2.1.7 to read as follows:

"2.2.2.1.7 *Chemicals under pressure*

Chemicals under pressure (UN Nos. 3500 to 3505) are assigned to one of the following groups according to their hazardous properties, as follows:

- A asphyxiant;
- F flammable;

T	toxic;
C	corrosive;
FC	flammable, corrosive;
TF	toxic, flammable.

The classification depends on the hazard characteristics of the components in the different states:

- The propellant;
- The liquid; or
- The solid.

NOTE 1: *Gases, which meet the definition of toxic gases or of oxidizing gases according to 2.2.2.1.5 or gases identified as "Considered as pyrophoric" by table note c of Table 2 of packing instruction P200 in 4.1.4.1, shall not be used as a propellant in chemicals under pressure.*

NOTE 2: *Chemicals under pressure with contents meeting the criteria for packing group I for toxicity or corrosivity or with contents meeting both the criteria for packing group II or III for toxicity and for packing group II or III for corrosivity shall not be accepted for carriage under these UN numbers.*

NOTE 3: *Chemicals under pressure with components meeting the properties of Class 1; liquid desensitized explosives of Class 3; self-reactive substances and solid desensitized explosives of Class 4.1; Class 4.2; Class 4.3; Class 5.1; Class 5.2; Class 6.2; or Class 7, shall not be used for carriage under these UN numbers.*

NOTE 4: *A chemical under pressure in an aerosol dispenser shall be carried under UN No. 1950.*

The following criteria shall apply:

(a) Assignment to group A shall apply when the contents do not meet the criteria for any other group according to sub-paragraphs (b) to (e) below;

(b) Assignment to group F shall apply if one of the components, which can be a pure substance or a mixture, needs to be classified as flammable. Flammable components are flammable liquids and liquid mixtures, flammable solids and solid mixtures or flammable gases and gas mixtures meeting the following criteria:

- (i) A flammable liquid is a liquid having a flashpoint of not more than 93 °C;
- (ii) A flammable solid is a solid which meets the criteria in 2.2.41.1;
- (iii) A flammable gas is a gas which meets the criteria in 2.2.2.1.5;

(c) Assignment to group T shall apply when the contents, other than the propellant, are classified as dangerous goods of Class 6.1, packing groups II or III;

(d) Assignment to group C shall apply when the contents, other than the propellant, are classified as dangerous goods of Class 8, packing groups II or III;

(e) When the criteria for two groups amongst groups F, T, and C are met, assignment to groups FC or TF shall apply, as relevant."

2.2.2.3 Add the following new table at the end:

Chemicals under pressure		
Classification code	UN No.	Name of the substance or article
8A	3500	CHEMICAL UNDER PRESSURE, N.O.S.
8F	3501	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S.
8T	3502	CHEMICAL UNDER PRESSURE, TOXIC, N.O.S.
8C	3503	CHEMICAL UNDER PRESSURE, CORROSIVE, N.O.S.
8TF	3504	CHEMICAL UNDER PRESSURE, FLAMMABLE, TOXIC, N.O.S.
8FC	3505	CHEMICAL UNDER PRESSURE, FLAMMABLE, CORROSIVE, N.O.S.

2.2.3.1.1 In NOTE 1, at the beginning, delete ", non toxic and non corrosive,".

2.2.3.1.1 In NOTE 2, add "including synthetically manufactured products" after "heating oil (light)".

2.2.3.1.2 Replace "F Flammable liquids, without subsidiary risk:" with "F Flammable liquids, without subsidiary risk and articles containing such substances:" and add the following new entry under this heading:

"F3 Articles containing flammable liquids;".

2.2.3.3 Amend "Flammable liquids" to read "Flammable liquids and articles containing such substances".

In the list of collective entries, for Flammable liquids without subsidiary risk F, insert a new entry to read:

articles	F3	3269 POLYESTER RESIN KIT 3473 FUEL CELL CARTRIDGES or 3473 FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT or 3473 FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT
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For F1, delete the entry for "3269 POLYESTER RESIN KIT".

2.2.51.3 Replace "Oxidizing substances" with "Oxidizing substances and articles containing such substances".

2.2.52.4 In the table, amend the entries listed below as follows:

<i>Organic peroxide</i>		<i>Column</i>	<i>Amendment</i>
DIISOPROPYL PEROXYDICARBONATE	(last row)	Concentration	Replace " ≤ 28 " with " ≤ 32 "
DIISOPROPYL PEROXYDICARBONATE	(last row)	Diluent type A	Replace " ≥ 72 " with " ≥ 68 "
DI-(3,5,5- TRIMETHYLHEXANOYL) PEROXIDE (concentration > 38-82)	(first row)	Concentration	Replace "> 38-82" with "> 52-82"

2.2.52.4 Insert the following new entries:

<i>Organic peroxide</i>	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
([3R-(3R,5aS,6S,8aS,9R,10R,12S,12aR**)]-DECAHYDRO-10-METHOXY-3,6,9-TRIMETHYL-3,12-EPOXY-12H-PYRANO[4,3-j]-1,2-BENZODIOXEPIN)	≤ 100					OP7				3106
3,6,9-TRIETHYL-3,6,9-TRIMETHYL-1,4,7-TRIPEROXONANE	≤ 17	≥ 18		≥ 65		OP8				3110
DI-(3,5,5-TRIMETHYLHEXANOYL) PEROXIDE	> 38-52	≥ 48				OP8	+10	+15		3119

2.2.61.3 In the list of collective entries, for "Toxic substances with subsidiary risk(s)", for code TFC, delete the entries for UN Nos. 3492 and 3493.

2.2.61.3 In the list of collective entries, for "Toxic substances without subsidiary risk(s)", for the classification codes listed above, amend the name and description of the entries listed to read as follows:

<i>Code</i>	<i>UN No.</i>	<i>Name and description</i>
T1	3276	NITRILES, LIQUID, TOXIC, N.O.S.
T1	3278	ORGANOPHOSPHORUS COMPOUND, LIQUID, TOXIC, N.O.S.
T3	3282	ORGANOMETALLIC COMPOUND, LIQUID, TOXIC, N.O.S.
T2	3439	NITRILES, SOLID, TOXIC, N.O.S.
T2	3464	ORGANOPHOSPHORUS COMPOUND, SOLID, TOXIC, N.O.S.
T3	3467	ORGANOMETALLIC COMPOUND, SOLID, TOXIC, N.O.S.

2.2.61.3 In the list of collective entries, for "Toxic substances without subsidiary risk(s)", code T4, UN Nos. 3381 and 3382, in the description, replace "with an inhalation toxicity" with "with an LC₅₀".

2.2.61.3 In the list of collective entries, for "Toxic substances with subsidiary risk(s)":

- Code TF1: UN Nos. 3383 and 3384;
- Code TW1: UN Nos. 3385 and 3386;
- Code TO1: UN Nos. 3387 and 3388;
- Code TC3: UN Nos. 3389 and 3390;
- Code TFC: UN Nos. 3488 and 3489; and
- Code TFW: UN Nos. 3490 and 3491;

in the description, replace "with an inhalation toxicity" with "with an LC₅₀".

2.2.62.1.5.3 Add the following new NOTE at the end:

"NOTE: Medical equipment which has been drained of free liquid is deemed to meet the requirements of this paragraph and is not subject to the provisions of ADR."

Add a new paragraph 2.2.62.1.5.7 to read as follows:

"2.2.62.1.5.7 Except for:

- (a) Medical waste (UN No. 3291);
- (b) Medical devices or equipment contaminated with or containing infectious substances in Category A (UN No. 2814 or UN No. 2900); and

(c) Medical devices or equipment contaminated with or containing other dangerous goods that meet the definition of another class,

medical devices or equipment potentially contaminated with or containing infectious substances which are being carried for disinfection, cleaning, sterilization, repair, or equipment evaluation are not subject to provisions of ADR other than those of this paragraph if packed in packagings designed and constructed in such a way that, under normal conditions of carriage, they cannot break, be punctured or leak their contents. Packagings shall be designed to meet the construction requirements listed in 6.1.4 or 6.6.5.

These packagings shall meet the general packing requirements of 4.1.1.1 and 4.1.1.2 and be capable of retaining the medical devices and equipment when dropped from a height of 1.2 m.

The packagings shall be marked "USED MEDICAL DEVICE" or "USED MEDICAL EQUIPMENT". When using overpacks, these shall be marked in the same way, except when the inscription remains visible."

2.2.8.1.2 Replace "C1-C10 Corrosive substances without subsidiary risk:" with "C1-C11 Corrosive substances without subsidiary risk and articles containing such substances:" and transfer the entry for C11 under this heading.

Amend the heading for CT to read "Corrosive substances, toxic and articles containing such substances".

Under this heading, insert a new subdivision CT3 to read as follows:

"CT3 Articles;"

2.2.8.1.6 Add the following table at the end:

"Table 2.2.8.1.6

Table summarizing the criteria in 2.2.8.1.6

<i>Packing Group</i>	<i>Exposure Time</i>	<i>Observation Period</i>	<i>Effect</i>
I	≤ 3 min	≤ 60 min	Full thickness destruction of intact skin
II	> 3 min ≤ 1 h	≤ 14 d	Full thickness destruction of intact skin
III	> 1 h ≤ 4 h	≤ 14 d	Full thickness destruction of intact skin
III	-	-	Corrosion rate on either steel or aluminium surfaces exceeding 6.25 mm a year at a test temperature of 55 °C when tested on both materials

".

2.2.8.3 Amend the headings of the tables as follows:

Replace "Corrosive substances without subsidiary risk" with "Corrosive substances without subsidiary risk and articles containing such substances".

Replace "Corrosive substances with subsidiary risk(s)" with "Corrosive substances with subsidiary risk(s) and articles containing such substances".

In the first table, for Articles, C11, insert the following new entries:

1774	FIRE EXTINGUISHER CHARGES, corrosive liquid
2028	BOMBS, SMOKE, NON-EXPLOSIVE with corrosive liquid, without initiating device
3477	FUEL CELL CARTRIDGES containing corrosive substances, or
3477	FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT, containing corrosive substances, or
3477	FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT, containing corrosive substances

In the second table, for CT, insert a new entry to read:

articles CT3 3506 MERCURY CONTAINED IN MANUFACTURED ARTICLES

2.2.9.1.7 Amend to read as follows:

"Lithium batteries

2.2.9.1.7 Cells and batteries, cells and batteries contained in equipment, or cells and batteries packed with equipment, containing lithium in any form shall be assigned to UN Nos. 3090, 3091, 3480 or 3481 as appropriate. They may be carried under these entries if they meet the following provisions:

(a) Each cell or battery is of the type proved to meet the requirements of each test of the Manual of Tests and Criteria, Part III, sub-section 38.3;

NOTE: *Batteries shall be of a type proved to meet the testing requirements of the Manual of Tests and Criteria, part III, sub-section 38.3, irrespective of whether the cells of which they are composed are of a tested type.*

(b) Each cell and battery incorporates a safety venting device or is designed to preclude a violent rupture under normal conditions of carriage;

(c) Each cell and battery is equipped with an effective means of preventing external short circuits;

(d) Each battery containing cells or series of cells connected in parallel is equipped with effective means as necessary to prevent dangerous reverse current flow (e.g., diodes, fuses, etc.);

(e) Cells and batteries shall be manufactured under a quality management programme that includes:

- (i) A description of the organizational structure and responsibilities of personnel with regard to design and product quality;
- (ii) The relevant inspection and test, quality control, quality assurance, and process operation instructions that will be used;
- (iii) Process controls that should include relevant activities to prevent and detect internal short circuit failure during manufacture of cells;
- (iv) Quality records, such as inspection reports, test data, calibration data and certificates. Test data shall be kept and made available to the competent authority upon request;
- (v) Management reviews to ensure the effective operation of the quality management programme;
- (vi) A process for control of documents and their revision;

- (vii) A means for control of cells or batteries that are not conforming to the type tested as mentioned in (a) above;
- (viii) Training programmes and qualification procedures for relevant personnel; and
- (ix) Procedures to ensure that there is no damage to the final product.

NOTE: *In house quality management programmes may be accepted. Third party certification is not required, but the procedures listed in (i) to (ix) above shall be properly recorded and traceable. A copy of the quality management programme shall be made available to the competent authority upon request.*

Lithium batteries are not subject to the provisions of ADR if they meet the requirements of special provision 188 of Chapter 3.3.

NOTE: *The entry UN 3171 Battery-powered vehicle or UN 3171 Battery-powered equipment only applies to vehicles powered by wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries and equipment powered by wet batteries or sodium batteries transported with these batteries installed.*

For the purpose of this UN number, vehicles are self-propelled apparatus designed to carry one or more persons or goods. Examples of such vehicles are electrically-powered cars, motorcycles, scooters, three- and four-wheeled vehicles or motorcycles, e-bikes, wheel-chairs, lawn tractors, boats and aircraft.

Examples of equipment are lawnmowers, cleaning machines or model boats and model aircraft. Equipment powered by lithium metal batteries or lithium ion batteries shall be consigned under the entries UN 3091 LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT or UN 3091 LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT or UN 3481 LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT or UN 3481 LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, as appropriate.

Hybrid electric vehicles powered by both an internal combustion engine and wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries, transported with the battery(ies) installed shall be classified under the entries UN 3166 vehicle, flammable gas powered or UN 3166 vehicle, flammable liquid powered, as appropriate. Vehicles which contain a fuel cell shall be classified under the entries UN 3166 vehicle, fuel cell, flammable gas powered or UN 3166 vehicle, fuel cell, flammable liquid powered, as appropriate."

2.2.9.1.14 Add the following new entry in the list before the NOTE:

"Electric double layer capacitors (with an energy storage capacity greater than 0.3 Wh)".

In the NOTE, after "UN No. 1845 carbon dioxide, solid (dry ice)", insert a reference "18" to a footnote. The footnote reads as follows: "For UN No. 1845 carbon dioxide, solid (dry ice) used as a coolant, see 5.5.3."

In the NOTE, after "3171 battery-powered equipment (wet battery)" insert "(see also the NOTE at the end of 2.2.9.1.7)".

2.2.9.3 For M11, add the following new entry at the end:

"3499 CAPACITOR, electric double layer (with an energy storage capacity greater than 0.3 Wh)".

Part 3

Chapter 3.1

3.1.3.2 In the first sentence, add "meeting the classification criteria of ADR" after "A solution or mixture".

3.1.3.3 Add "meeting the classification criteria of ADR" after "A solution or mixture".

Chapter 3.2

3.2.1, Table A

For UN Nos. 0012, 0014 and 0055, insert "364" in column (6) and replace "0" with "5 kg" in column (7a).

For UN No. 0014, in column (2), after "CARTRIDGES, SMALL ARMS, BLANK", insert "or CARTRIDGES FOR TOOLS, BLANK".

For UN No. 0144, insert "358" and delete "500" in column (6).

For UN No. 1006 and 1046, in column (6), add "653".

For UN Nos. 1008, 1017, 1048, 1050, 1053 and 1079, add "TT10" in column (13).

For UN Nos. 1011, 1049, 1075, 1954, 1965, 1969, 1971 and 1978, insert "660" in column (6).

For UN Nos. 1011, 1969 and 1978, insert "657" in column (6).

For UN No. 1057, in column (6), insert "658".

For UN Nos. 1072, 1956 and 3156, insert "655" in column (6).

For UN No. 1081, in column (12), insert: "PxBN(M)".

For UN No. 1081, in column (13), insert: "TU40 TA4 TT9".

For UN Nos. 1162, 1196, 1250, 1298, 1305, 1724, 1728, 1747, 1753, 1762, 1763, 1766, 1767, 1769, 1771, 1781, 1784, 1799, 1800, 1801, 1804, 1816, 1818, 2434, 2435, 2437, 2985, 2986, 2987, 3361 and 3362, amend the code in column (7b) to read "E0".

Delete the entries for Packing Group I for UN Nos. 1169, 1197, 1266, 1286 and 1287.

For all entries of UN Nos. 1202, 1203, 1223, 1268, 1863 and 3475, insert "363" in column (6).

For UN No. 1402, Packing Group I, in column (12), insert: "S2.65AN(+)".

For UN No. 1402, Packing Group I, in column (13), insert: "TU4 TU22 TM2 TA5".

For UN No. 1792:

Add ", SOLID" at the end of the name in column (2).

In column (3b), replace "C1" with "C2".

In column (7a), replace "1 L" with "1 kg".

In column (8), replace "P001 IBC02" with "P002 IBC08".

In column (9a), add "B4" against "IBC08".

In column (9b), replace "MP15" with "MP10".

In column (12), insert "SGAN".

In column (16), add "V11".

For UN No. 1845, after "NOT SUBJECT TO ADR" add "- when used as a coolant, see 5.5.3".

For UN No. 1950, replace "P003" with "P207" in column (8) and delete "PP17" in column (9a) (twelve times).

For UN Nos. 2208 and 3486, add "L3" against "LP02" in column (9a).

For UN No. 2381:

Insert "+6.1" in column (5). Replace "T4" with "T7" in column (10) and replace "TP1" with "TP2 TP39" in column (11).

Amend the classification code in column (3b) to read "FT1".

In column (8), delete "R001".

In column (12), replace "LGBF" with "L4BH" and in column (13), add "TU15".

In column (18), add "CV13 CV28".

In column (19), replace "S20" with "S22".

In column (20), amend the code to read "336".

For UN No. 2590: In column (7a), replace "0" with "5 kg".

For UN No. 2809:

Insert "+6.1" in column (5) and "365" in column (6). Delete "599" in column (6).

Amend the classification code in column (3b) to read "CT1".

In column (18), add "CV13 CV28".

In column (20), amend the code to read "86".

For UN No. 3064, insert "359" in column (6).

For UN Nos. 3090, 3091, 3480 and 3481, delete "656" in column (6).

For UN Nos. 3091 and 3481, insert "360" in column (6).

For UN No. 3129, Packing Group II, and UN No. 3148, Packing Group II, insert "TP7" in column (11).

For UN No. 3129, Packing Group III, and UN No. 3148, Packing Group III, replace "TP1" with "TP2 TP7" in column (11).

For UN No. 3148, Packing Group I, replace "T9" with "T13" in column (10) and insert "TP38" in column (11).

For UN No. 3150, in column (8), replace "P206" with "P208".

For UN No. 3171, after "NOT SUBJECT TO ADR" insert ", see also special provision 240 of Chapter 3.3".

For UN Nos. 3175 and 3243, insert "601" in column (6).

Replace the row for UN 3256 with the following two rows:

(1)	(2)	(6)
3256	ELEVATED TEMPERATURE LIQUID, FLAMMABLE, N.O.S. with flashpoint above 60 °C, at or above its flashpoint and below 100 °C	274 560
3256	ELEVATED TEMPERATURE LIQUID, FLAMMABLE, N.O.S. with flashpoint above 60 °C, at or above its flashpoint and at or above 100 °C	274 560 580

The indications in columns (3a), (3b), (4), (5) and (7a) to (20) remain identical and unchanged for both cases.

For UN Nos. 3269 (twice) and 3473, in column (3b) replace "F1" with "F3".

For UN Nos. 3381 to 3390 and 3488 to 3491, replace "with an inhalation toxicity" with "with an LC₅₀" in column (2).

Delete the entries for UN Nos. 3492 and 3493.

For the following entries, amend the name and description in column (2) as indicated below:

<i>UN No.</i>	<i>Name and description</i>
3276	NITRILES, LIQUID, TOXIC, N.O.S.
3278	ORGANOPHOSPHORUS COMPOUND, LIQUID, TOXIC, N.O.S.
3282	ORGANOMETALLIC COMPOUND, LIQUID, TOXIC, N.O.S.
3439	NITRILES, SOLID, TOXIC, N.O.S.
3464	ORGANOPHOSPHORUS COMPOUND, SOLID, TOXIC, N.O.S.
3467	ORGANOMETALLIC COMPOUND, SOLID, TOXIC, N.O.S.

Add the following new entries:

(1)	(2)	(3a)	(3b)	(4)	(5)	(6)	(7a)	(7b)	(8)	(9a)	(9b)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
3497	KRILL MEAL	4.2	S2	II	4.2	300	0	E2	P410 IBC06		MP14	T3	TP33	SGAN	-	AT	2 (D/E)	V1	-	-	-	40
3497	KRILL MEAL	4.2	S2	III	4.2	300	0	E1	P002 IBC08 LP02 R001	B3	MP14	T1	TP33	SGAV	-	AT	3 (E)	V1	VV4	-	-	40
3498	IODINE MONOCHLORIDE, LIQUID	8	C1	II	8	-	1 L	E2	P001 IBC02	-	MP15	T7	TP2	L4BN	-	AT	2 (E)	-	-	-	-	80
3499	CAPACITOR, electric double layer (with an energy storage capacity greater than 0.3 Wh)	9	M11	-	9	361	0	E0	P003	-	-	-	-	-	-	-	4 (E)	-	-	-	-	
3500	CHEMICAL UNDER PRESSURE, N.O.S.	2	8A	-	2.2	274 659	0	E0	P206	-	MP9	T50	TP4 TP40			AT	3 (C/E)	-	-	CV9 CV10 CV12 CV36	-	20
3501	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S.	2	8F	-	2.1	274 659	0	E0	P206	PP89	MP9	T50	TP4 TP40			FL	2 (B/D)	-	-	CV9 CV10 CV12 CV36	S2	23
3502	CHEMICAL UNDER PRESSURE, TOXIC, N.O.S.	2	8T	-	2.2 +6.1	274 659	0	E0	P206	PP89	MP9	T50	TP4 TP40			AT	1 (C/D)	-	-	CV9 CV10 CV12 CV28 CV36	-	26
3503	CHEMICAL UNDER PRESSURE, CORROSIVE, N.O.S.	2	8C	-	2.2 +8	274 659	0	E0	P206	PP89	MP9	T50	TP4 TP40			AT	1 (C/D)	-	-	CV9 CV10 CV12 CV36	-	28
3504	CHEMICAL UNDER PRESSURE, FLAMMABLE, TOXIC, N.O.S.	2	8TF	-	2.1 +6.1	274 659	0	E0	P206	PP89	MP9	T50	TP4 TP40			FL	1 (B/D)	-	-	CV9 CV10 CV12 CV28 CV36	S2	263
3505	CHEMICAL UNDER PRESSURE, FLAMMABLE, CORROSIVE, N.O.S.	2	8FC	-	2.1 +8	274 659	0	E0	P206	PP89	MP9	T50	TP4 TP40			FL	1 (B/D)	-	-	CV9 CV10 CV12 CV36	S2	238
3506	MERCURY CONTAINED IN MANUFACTURED ARTICLES	8	CT3	III	8 +6.1	366	5 kg	E0	P003	PP90	MP15	-	-	-	-	-	3 (E)	-	-	CV13 CV28	-	

Chapter 3.3

3.3.1

SP 188 (b) At the end, add ", except those manufactured before 1 January 2009".

SP 188 (c) Amend to read as follows:

"(c) Each cell or battery meets the provisions of 2.2.9.1.7 (a) and (e);".

SP 188 (e) Insert the following new second sentence: "This requirement does not apply to devices which are intentionally active in carriage (radio frequency identification (RFID) transmitters, watches, sensors, etc.) and which are not capable of generating a dangerous evolution of heat."

SP 207 The amendment does not apply to the English text.

SP 230 Amend to read as follows:

"230 Lithium cells and batteries may be carried under this entry if they meet the provisions of 2.2.9.1.7."

SP 239 In the first sentence, replace, "sodium, sulphur and/or polysulphides" with "sodium, sulphur or sodium compounds (e.g. sodium polysulphides and sodium tetrachloroaluminate)".

SP 272 In the text in parentheses, at the end, add "or UN No. 0150 as appropriate".

SP 280 Replace "pressure vessel" with "pressure receptacle".

SP 289 Replace "installed in conveyances or in completed conveyance components" with "installed in vehicles, wagons, vessels or aircraft or in completed components".

SP 296 The amendment to the first paragraph does not apply to the English text.

In sub-paragraph (c), insert "or liquefied" after "compressed".

Add the following new paragraph at the end:

"Life-saving appliances packed in strong rigid outer packagings with a total maximum gross mass of 40 kg, containing no dangerous goods other than compressed or liquefied gases of Class 2, group A or group O, in receptacles with a capacity not exceeding 120 ml, installed solely for the purpose of the activation of the appliance, are not subject to the requirements of ADR."

SP 300 Replace "Fish meal or fish scrap" with "Fish meal, fish scrap and krill meal".

SP 327 In the third sentence, replace "P003" with "P207".

SP 328 Add the following new paragraph at the end:

"When lithium metal or lithium ion batteries are contained in the fuel cell system, the consignment shall be consigned under this entry and under the appropriate entries for UN 3091 LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT or UN 3481 LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT."

SP 338 Amend sub-paragraph (b) to read as follows:

"(b) Not contain more than 200 ml liquefied flammable gas, the vapour pressure of which shall not exceed 1 000 kPa at 55 °C; and".

SP 356 Amend the first sentence to read as follows: "Metal hydride storage systems installed in vehicles, wagons, vessels or aircraft or in completed components or intended to

be installed in vehicles, wagons, vessels or aircraft shall be approved by the competent authority of the country of manufacture¹ before acceptance for carriage."

The text of footnote 1 is unchanged.

Replace "358-499 (*Reserved*)" with "367-499 (*Reserved*)".

SP 500 Amend to read "500 (Deleted)".

SP 560 Amend to read as follows:

"560 An elevated temperature liquid, n.o.s. at or above 100 °C (including molten metals and molten salts) and, for a substance having a flashpoint, at a temperature below its flashpoint, is a substance of Class 9 (UN No. 3257)."

SP 593 At the end add "except as specified in 5.5.3".

SP 599 Amend to read "599 (Deleted)".

SP 636 (b) Amend the introductory sentence to read as follows:

"Up to the intermediate processing facility, used lithium cells and batteries with a gross mass of not more than 500 g each, whether or not contained in equipment, collected and handed over for carriage for disposal, together with or without other non-lithium cells or batteries, are not subject to the other provisions of ADR if they meet the following conditions:"

SP 637 Renumber footnote 2 as footnote 3.

SP 653 Amend the introductory sentence to read as follows: "The carriage of this gas in cylinders having a test pressure capacity product of maximum 15.2 MPa.litre (152 bar.litre) is not subject to the other provisions of ADR if the following conditions are met:"

Amend the beginning of the fifth indent to read as follows: "Each package is clearly and durably marked with "UN 1006" for argon compressed, "UN 1013" for carbon dioxide, "UN 1046" for helium compressed or "UN 1066" for nitrogen, compressed..."

SP 655 Renumber footnote 3 as footnote 4.

SP 656 Amend to read "656 (Deleted)".

Add the following new special provisions:

"123 (*Reserved*)".

"240 See the last NOTE in 2.2.9.1.7."

"358 Nitroglycerin solution in alcohol with more than 1% but not more than 5% nitroglycerin may be classified in Class 3 and assigned to UN No. 3064 provided all the requirements of packing instruction P300 of 4.1.4.1 are complied with."

"359 Nitroglycerin solution in alcohol with more than 1% but not more than 5% nitroglycerin shall be classified in Class 1 and assigned to UN No. 0144 if not all the requirements of packing instruction P300 of 4.1.4.1 are complied with."

"360 Vehicles only powered by lithium metal batteries or lithium ion batteries shall be classified under the entry UN 3171 battery-powered vehicle."

"361 This entry applies to electric double layer capacitors with an energy storage capacity greater than 0.3 Wh. Capacitors with an energy storage capacity of 0.3 Wh or less are not subject to ADR. Energy storage capacity means the energy held by a capacitor, as calculated using the nominal voltage and capacitance. All capacitors to which this entry applies, including capacitors containing an electrolyte that does not meet the classification criteria of any class of dangerous goods, shall meet the following conditions:

(a) Capacitors not installed in equipment shall be carried in an uncharged state. Capacitors installed in equipment shall be carried either in an uncharged state or protected against short circuit;

(b) Each capacitor shall be protected against a potential short circuit hazard in carriage as follows:

(i) When a capacitor's energy storage capacity is less than or equal to 10Wh or when the energy storage capacity of each capacitor in a module is less than or equal to 10 Wh , the capacitor or module shall be protected against short circuit or be fitted with a metal strap connecting the terminals; and

(ii) When the energy storage capacity of a capacitor or a capacitor in a module is more than 10 Wh, the capacitor or module shall be fitted with a metal strap connecting the terminals;

(c) Capacitors containing dangerous goods shall be designed to withstand a 95 kPa pressure differential;

(d) Capacitors shall be designed and constructed to safely relieve pressure that may build up in use, through a vent or a weak point in the capacitor casing. Any liquid which is released upon venting shall be contained by the packaging or by the equipment in which a capacitor is installed; and

(e) Capacitors shall be marked with the energy storage capacity in Wh.

Capacitors containing an electrolyte not meeting the classification criteria of any class of dangerous goods, including when installed in equipment, are not subject to other provisions of ADR.

Capacitors containing an electrolyte meeting the classification criteria of any class of dangerous goods, with an energy storage capacity of 10 Wh or less are not subject to other provisions of ADR when they are capable of withstanding a 1.2 metre drop test unpackaged on an unyielding surface without loss of contents.

Capacitors containing an electrolyte meeting the classification criteria of any class of dangerous goods that are not installed in equipment and with an energy storage capacity of more than 10 Wh are subject to ADR.

Capacitors installed in equipment and containing an electrolyte meeting the classification criteria of any class of dangerous goods, are not subject to other provisions of ADR provided the equipment is packaged in a strong outer packaging constructed of suitable material, and of adequate strength and design in relation to the packaging's intended use and in such a manner as to prevent accidental functioning of capacitors during carriage. Large robust equipment containing capacitors may be offered for carriage unpackaged or on pallets when capacitors are afforded equivalent protection by the equipment in which they are contained.

NOTE: *Capacitors which by design maintain a terminal voltage (e.g. asymmetrical capacitors) do not belong to this entry."*

"362 (Reserved)".

"363 This entry also applies to liquid fuels, other than those exempted according to paragraphs (a) or (b) of 1.1.3.3, above the quantity specified in column (7a) of Table A of Chapter 3.2, in means of containment integral to equipment or machinery (e.g. generators, compressors, heating units, etc) as part of their original design type. They are not subject to other provisions of ADR if they meet the following:

(a) The means of containment are in compliance with the construction requirements of the competent authority of the country of manufacture²;

(b) Any valves or openings (e.g. venting devices) in the means of containment containing dangerous goods are closed during carriage;

(c) The machinery or equipment is loaded in an orientation to prevent inadvertent leakage of dangerous goods and secured by means capable of restraining the machinery or equipment to prevent any movement during carriage which would change the orientation or cause it to be damaged;

(d) Where the means of containment has a capacity of more than 60 litres but not more than 450 litres, the machinery or equipment is labelled on one external side in accordance with 5.2.2 and where the capacity is greater than 450 litres but not more than 1 500 litres the machinery or equipment is labelled on all four external sides in accordance with 5.2.2; and

(e) Where the means of containment has a capacity greater than 1500 litres, the machinery or equipment is placarded on all four external sides in accordance with 5.3.1.1.1, the requirement of 5.4.1 applies and the transport document includes the following additional statement: "Carriage in accordance with Special Provision 363".

"364 This article may only be carried under the provisions of Chapter 3.4 if, as presented for carriage, the package is capable of passing the test in accordance with Test Series 6(d) of Part I of the Manual of Tests and Criteria as determined by the competent authority."

"365 For manufactured instruments and articles containing mercury, see UN No. 3506."

"366 Manufactured instruments and articles containing not more than 1 kg of mercury are not subject to ADR."

"657 This entry shall be used for the technically pure substance only; for mixtures of LPG components, see UN No. 1965 or see UN No. 1075 in conjunction with NOTE 2 in 2.2.2.3."

"658 UN No. 1057 LIGHTERS complying with standard EN ISO 9994:2006 + A1:2008 "Lighters – Safety Specification" and UN No. 1057 LIGHTER REFILLS, may be carried subject only to the provisions of 3.4.1 (a) to (h), 3.4.2 (except for the total gross mass of 30 kg), 3.4.3 (except for the total gross mass of 20 kg), 3.4.11 and 3.4.12, provided the following conditions are met:

(a) The total gross mass of each package is not more than 10 kg;

(b) Not more than 100 kg gross mass of such packages is carried in a vehicle; and

(c) Each outer packaging is clearly and durably marked with "UN 1057 LIGHTERS" or "UN 1057 LIGHTER REFILLS", as appropriate."

"659 Substances to which PP86 or TP7 are assigned in Column (9a) and Column (11) of Table A in Chapter 3.2 and therefore require air to be eliminated from the vapour space, shall not be used for carriage under this UN number but shall be carried under their respective UN numbers as listed in Table A of Chapter 3.2.

NOTE: See also 2.2.2.1.7."

² For example, compliance with the relevant provisions of Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (Official Journal of the European Union No. L 157 of 9 June 2006, pp. 0024-0086).

"660 For the carriage of fuel gas containment systems designed to be fitted in motor vehicles containing this gas the provisions of sub-section 4.1.4.1, Chapter 5.2, Chapter 5.4 and Chapter 6.2 of ADR need not be applied, provided the following conditions are met:

(a) The fuel gas containment systems shall meet the requirements of ECE Regulation No. 67 Revision 2⁵, ECE Regulation No. 110 Revision 1⁶ or ECE Regulation No. 115⁷ or Regulation (EC) No. 79/2009⁸ in combination with Regulation (EU) No. 406/2010⁹, as applicable.

(b) The fuel gas containment systems shall be leakproof and shall not exhibit any signs of external damage which may affect their safety.

NOTE 1: *Criteria may be found in standard ISO 11623:2002 Transportable gas cylinders – Periodic inspection and testing of composite gas cylinders (or ISO DIS 19078 Gas cylinders – Inspection of the cylinder installation, and requalification of high pressure cylinders for the on-board storage of natural gas as a fuel for automotive vehicles).*

NOTE 2: *If the fuel gas containment systems are not leakproof or overfilled or if they exhibit damage that could affect their safety, they shall only be carried in salvage pressure receptacles in conformity with ADR.*

(c) If the fuel gas containment system is equipped with two valves or more integrated in line, two valves shall be so closed as to be gastight under normal conditions of carriage. If only one valve exists or only one valve works properly all openings with the exception of the opening of the pressure relief device shall be so closed as to be gastight under normal conditions of carriage.

(d) Fuel gas containment systems shall be carried in such a way as to prevent obstruction of the pressure relief device or any damage to the valves and any other pressurised part of the fuel gas containment systems and unintentional release of the gas under normal conditions of carriage. The fuel gas containment system shall be secured so as to prevent slipping, rolling or vertical movement.

(e) Fuel gas containment systems shall satisfy the provisions of 4.1.6.8 (a), (b), (c), (d) or (e).

(f) The marking and labelling provisions of Chapter 5.2 shall be met, unless fuel gas containment systems are consigned in a handling device. If so, the markings and danger labels shall be affixed to the handling device.

(g) Documentation

⁵ ECE Regulation No. 67 (Uniform provisions concerning: I. Approval of specific equipment of motor vehicles using liquefied petroleum gases in their propulsion system; II. Approval of a vehicle fitted with specific equipment for the use of liquefied petroleum gases in its propulsion system with regard to the installation of such equipment).

⁶ ECE Regulation No. 110 (Uniform provisions concerning: I. Specific components of motor vehicles using compressed natural gas (CNG) in their propulsion system; II. vehicles with regard to the installation of specific components of an approved type for the use of compressed natural gas (CNG) in their propulsion system).

⁷ ECE Regulation No. 115 (Uniform provisions concerning the approval of: I. Specific LPG (liquefied petroleum gases) retrofit systems to be installed in motor vehicles for the use of LPG in their propulsion system; II. Specific CNG (compressed natural gas) retrofit systems to be installed in motor vehicles for the use of CNG in their propulsion system).

⁸ Regulation (EC) No 79/2009 of the European Parliament and of the Council of 14 January 2009 on type-approval of hydrogen-powered motor vehicles, and amending Directive 2007/46/EC.

⁹ Commission Regulation (EU) No 406/2010 of 26 April 2010 implementing Regulation (EC) No 79/2009 of the European Parliament and of the Council on type-approval of hydrogen-powered motor vehicles.

Every consignment that is carried in accordance with this special provision shall be accompanied by a transport document, containing at least the following information:

- (i) The UN number of the gas contained in the fuel gas containment systems, preceded by the letters "UN";
- (ii) The proper shipping name of the gas;
- (iii) The label model number;
- (iv) The number of fuel gas containment systems;
- (v) In the case of liquefied gases the net mass in kg of the gas of each fuel gas containment system and in the case of compressed gases the nominal capacity in litres of each fuel gas containment system followed by the nominal working pressure;
- (vi) The names and the addresses of the consignor and the consignee.

(i) to (v) shall appear according to one of the following examples:

Example 1: UN 1971 natural gas, compressed, 2.1, 1 fuel gas containment system of 50 l in total, 200 bar

Example 2: UN 1965 hydrocarbon gas mixture, liquefied, n.o.s., 2.1, 3 fuel gas containment systems, each of 15 kg net mass of gas

NOTE: *All other provisions of ADR shall be applied.*

Chapter 3.4

3.4.1 (g) Before "7.5.7" insert "7.5.2.4, "

3.4.1 (h) At the end, insert: "and 8.6.4."

3.4.2 Amend to read as follows:

"3.4.2 Dangerous goods shall be packed only in inner packagings placed in suitable outer packagings. Intermediate packagings may be used. In addition, for articles of Division 1.4, Compatibility Group S, the provisions of section 4.1.5 shall be fully complied with. The use of inner packagings is not necessary for the carriage of articles such as aerosols or "receptacles, small, containing gas". The total gross mass of the package shall not exceed 30 kg."

3.4.3 Add the following text at the beginning: "Except for articles of Division 1.4, Compatibility Group S,..."

3.4.7 and 3.4.8 The amendments do not apply to the English text.

3.4.13 (a) Amend to read as follows:

"(a) Transport units with a maximum mass exceeding 12 tonnes carrying dangerous goods packed in limited quantities shall be marked in accordance with 3.4.15 at the front and at the rear except when the transport unit contains other dangerous goods for which orange-coloured plate marking in accordance with 5.3.2 is required. In this latter case, the transport unit may display the required orange-coloured plate marking only, or both the orange-coloured plate marking in accordance with 5.3.2 and the marking in accordance with 3.4.15."

3.4.13 (b) Amend to read as follows:

"(b) Containers carrying dangerous goods packed in limited quantities, on transport units with a maximum mass exceeding 12 tonnes, shall be marked in accordance with 3.4.15 on all four sides except when the container contains other dangerous goods for which placarding in accordance with 5.3.1 is required. In this latter case, the container may display the required placards only, or both the placards in accordance with 5.3.1 and the marking in accordance with 3.4.15."

Chapter 3.5

3.5.1 Insert a new sub-section 3.5.1.4 to read as follows:

"3.5.1.4 Excepted quantities of dangerous goods assigned to codes E1, E2, E4 and E5 with a maximum net quantity of dangerous goods per inner packaging limited to 1 ml for liquids and gases and 1 g for solids and a maximum net quantity of dangerous goods per outer packaging which does not exceed 100 g for solids or 100 ml for liquids and gases are only subject to:

(a) The provisions of 3.5.2, except that an intermediate packaging is not required if the inner packagings are securely packed in an outer packaging with cushioning material in such a way that, under normal conditions of carriage, they cannot break, be punctured, or leak their contents; and for liquids, the outer packaging contains sufficient absorbent material to absorb the entire contents of the inner packagings; and

(b) The provisions of 3.5.3."

Part 4

Chapter 4.1

4.1.1.2 In the Note, replace "4.1.1.19" with "4.1.1.21".

4.1.1.3 and 4.1.1.9 For "6.3.2" read "6.3.5".

4.1.1.15 The amendment does not apply to the English text.

Insert a new 4.1.1.16 to read as follows and renumber following sub-sections accordingly:

"4.1.1.16 Where ice is used as a coolant it shall not affect the integrity of the packaging."

The sub-section on chemical compatibility 4.1.1.19 is renumbered 4.1.1.21 with appropriate renumbering of cross-references in the renumbered paragraphs. Figures 4.1.1.19.1 and 4.1.1.19.2 are renumbered 4.1.1.21.1 and 4.1.1.21.2. Table 4.1.1.19.6 is renumbered 4.1.1.21.6.

4.1.1.19.6 (Renumbered 4.1.1.21.6) In table 4.1.1.19.6 (renumbered 4.1.1.21.6), for UN Nos. 1169, 1197, 1266, 1286 and 1287, in column "Packing group", replace "I/II/III" with "II/III".

Insert a new sub-section 4.1.1.20 to read as follows:

4.1.1.20 Use of salvage pressure receptacles

4.1.1.20.1 In the case of damaged, defective, leaking or non-conforming pressure receptacles, salvage pressure receptacles according to 6.2.3.11 may be used.

NOTE: A salvage pressure receptacle may be used as an overpack in accordance with 5.1.2. When used as an overpack, markings shall be in accordance with 5.1.2.1 instead of 5.2.1.3.

4.1.1.20.2 Pressure receptacles shall be placed in salvage pressure receptacles of suitable size. More than one pressure receptacle may be placed in the same salvage pressure receptacle only if the contents are known and do not react dangerously with each other (see 4.1.1.6). Appropriate measures shall be taken to prevent movement of the pressure receptacles within the salvage pressure receptacle e.g. by partitioning, securing or cushioning.

4.1.1.20.3 A pressure receptacle may only be placed in a salvage pressure receptacle if:

(a) The salvage pressure receptacle is in accordance with 6.2.3.11 and a copy of the approval certificate is available;

(b) Parts of the salvage pressure receptacle which are, or are likely to be in direct contact with the dangerous goods will not be affected or weakened by those dangerous goods and will not cause a dangerous effect (e.g. catalyzing reaction or reacting with the dangerous goods); and

(c) The contents of the contained pressure receptacle(s) are limited in pressure and volume so that if totally discharged into the salvage pressure receptacle, the pressure in the salvage pressure receptacle at 65 °C will not exceed the test pressure of the salvage pressure receptacle (for gases, see packing instruction in P200 (3) in 4.1.4.1). The reduction of the useable water capacity of the salvage pressure receptacle, e.g. by any contained equipment and cushioning, shall be taken into account.

4.1.1.20.4 The proper shipping name, the UN number preceded by the letters "UN" and label(s) as required for packages in Chapter 5.2 applicable to the dangerous goods inside the contained pressure receptacle(s) shall be applied to the salvage pressure receptacle for carriage.

4.1.1.20.5 Salvage pressure receptacles shall be cleaned, purged and visually inspected internally and externally after each use. They shall be periodically inspected and tested in accordance with 6.2.3.5 at least once every five years."

4.1.3.6.1 (b) Replace "and bundles of cylinders" with ", bundles of cylinders and salvage pressure receptacles".

4.1.4.1

P001 For "Combination packagings", under "Outer packagings", amend the entries for "Drums" to read as follows (the values for Maximum capacity/Net mass remain unchanged):

steel (1A1, 1A2)
aluminium (1B1, 1B2)
other metal (1N1, 1N2)
plastics (1H1, 1H2)
plywood (1D)
fibre (1G)

P001 For "Combination packagings", under "Outer packagings", "Boxes", after "aluminium (4B)", insert the following row:

other metal (4N)	250 kg	400 kg	400 kg
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P001 For "Combination packagings", under "Outer packagings", amend the entries for "Jerricans" to read as follows (the values for Maximum capacity/Net mass remain unchanged):

steel (3A1, 3A2)
aluminium (3B1, 3B2)
plastics (3H1, 3H2)

P002 For "Combination packagings", under "Outer packagings", amend the entries for "Drums" to read as follows (the values for Maximum net mass remain unchanged):

steel (1A1, 1A2)
aluminium (1B1, 1B2)
other metal (1N1, 1N2)
plastics (1H1, 1H2)
plywood (1D)
fibre (1G)

P002 For "Combination packagings", "Outer packagings", "Boxes", after "aluminium (4B)", insert the following row:

other metal (4N)	400 kg	400 kg	400 kg
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P002 For "Combination packagings", under "Outer packagings", amend the entries for "Jerricans" to read as follows (the values for Maximum net mass remain unchanged):

steel (3A1, 3A2)
aluminium (3B1, 3B2)
plastics (3H1, 3H2)

P002 For "Single packagings", "Boxes", after "aluminium (4B)", insert the following row:

other metal (4N) ^c	Not allowed	400 kg	400 kg
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P003 In special packing provision PP17, replace "UN Nos. 1950 and" with "UN No.". Amend PP87 to read "PP87 (*Deleted*)". In special packing provision RR6 specific to RID and ADR, replace "UN 1950 and" with "UN No.".

P003 Under "Special packing provisions", insert the following new special packing provision PP90:

"PP90 For UN No. 3506, sealed inner liners or bags of strong leakproof and puncture resistant material impervious to mercury which will prevent escape of the substance from the package irrespective of the position of the package shall be used."

P004 Amend to read as follows:

P004	PACKING INSTRUCTION	P004
This instruction applies to UN Nos. 3473, 3476, 3477, 3478 and 3479.		
The following packagings are authorized:		
(1)	For fuel cell cartridges, provided that the general provisions of 4.1.1.1, 4.1.1.2, 4.1.1.3, 4.1.1.6 and 4.1.3 are met: Drums (1A2, 1B2, 1N2, 1H2, 1D, 1G); Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2); Jerricans (3A2, 3B2, 3H2). Packagings shall conform to the packing group II performance level.	
(2)	For fuel cell cartridges packed with equipment: strong outer packagings which meet the general provisions of 4.1.1.1, 4.1.1.2, 4.1.1.6 and 4.1.3 . When fuel cell cartridges are packed with equipment, they shall be packed in inner packagings or placed in the outer packaging with cushioning material or divider(s) so that the fuel cell cartridges are protected against damage that may be caused by the movement or placement of the contents within the outer packaging. The equipment shall be secured against movement within the outer packaging. For the purpose of this packing instruction, "equipment" means apparatus requiring the fuel cell cartridges with which it is packed for its operation.	
(3)	For fuel cell cartridges contained in equipment: strong outer packagings which meet the general provisions of 4.1.1.1, 4.1.1.2, 4.1.1.6 and 4.1.3 . Large robust equipment (see 4.1.3.8) containing fuel cell cartridges may be carried unpackaged. For fuel cell cartridges contained in equipment, the entire system shall be protected against short circuit and inadvertent operation.	

P010 For "Combination packagings", under "Outer packagings":

- Under "Drums", for "steel", insert "1A1," before "1A2";
- Under "Drums", for "plastics", insert "1H1," before "1H2";

P010 At the end, add the following new row:

Steel pressure receptacles, provided that the general provisions of 4.1.3.6 are met.

P110(b), P111, P112(a), P112(b), P112(c), P113, P114(a), P114(b), P115, P116, P130, P131, P132(a), P132(b), P133, P134, P135, P136, P137, P138, P139, P140, P141, P142, P143, P144 In the headings of the columns, delete "and arrangements" wherever it appears.

P111 For "Inner packagings", after the entries for bags, insert two new rows to read:

"Receptacles
wood".

P111 For "Outer packagings", "Boxes", after "aluminium (4B)", insert a new row to read: "other metal (4N)".

P111 Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)

P111 Amend special packing provision PP43 to read as follows:

"PP43 For UN 0159, inner packagings are not required when metal (1A1, 1A2, 1B1, 1B2, 1N1 or 1N2) or plastics (1H1 or 1H2) drums are used as outer packagings."

P112(a) For "Inner packagings", "Receptacles", insert a new line to read: "wood".

P112(a) For "Intermediate packagings", "Receptacles", insert a new row to read: "wood".

P112(a) For "Outer packagings", "Boxes", after "aluminium (4B)", insert a new row to read: "other metal (4N)".

P112(a) Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)

P112(b) For "Outer packagings", "Boxes", after "aluminium (4B)", insert a new row to read: "other metal (4N)".

Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)

P112(c) For "Intermediate packagings", "Receptacles", insert a new row to read: "wood".

P112(c) Amend the entries under "Outer packagings", "Boxes" to read:

steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1)
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natural wood, sift-proof (4C2)
plywood (4D)
reconstituted wood (4F)
fibreboard (4G)
plastics, solid (4H2)

P112(c) Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2)
aluminium (1B1, 1B2)
other metal (1N1, 1N2)
plywood (1D)
fibre (1G)
plastics (1H1, 1H2)

P113 Amend the entries under "Outer packagings", "Boxes" to read:

steel (4A)
aluminium (4B)
other metal (4N)
natural wood, ordinary (4C1)
natural wood, sift-proof walls (4C2)
plywood (4D)
reconstituted wood (4F)
fibreboard (4G)
plastics, solid (4H2)

P113 Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2)
aluminium (1B1, 1B2)
other metal (1N1, 1N2)
plywood (1D)
fibre (1G)
plastics (1H1, 1H2)

P114(a) For "Inner packagings", "Receptacles", insert a new line to read: "wood".

P114(a) For "Intermediate packagings", insert two new lines to read:

"Dividing partitions
wood".

P114(a) For "Outer packagings", "Boxes", after "steel (4A)", insert a new row to read:
"metal, other than steel or aluminium (4N)".

P114(a) Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2)
aluminium (1B1, 1B2)
other metal (1N1, 1N2)
fibre (1G)
plastics (1H1, 1H2)

P114(a) Amend special packing provision PP43 to read as follows:

"PP43 For UN 0342, inner packagings are not required when metal (1A1, 1A2, 1B1, 1B2, 1N1 or 1N2) or plastics (1H1 or 1H2) drums are used as outer packagings."

P114(b) For "Inner packagings", "Receptacles", insert a new line to read: "wood".

P114(b) Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2)
aluminium (1B1, 1B2)
other metal (1N1, 1N2)
plywood (1D)
fibre (1G)
plastics (1H1, 1H2)

P114(b) In special packing provisions PP52, replace "1A2 or 1B2" with "1A1, 1A2, 1B1, 1B2, 1N1 or 1N2".

P115 For "Inner packagings", "Receptacles", insert a new line to read: "wood".

P115 For "Intermediate packagings", insert two new rows to read:

"Receptacles
wood".

P115 Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2)
aluminium (1B1, 1B2)
other metal (1N1, 1N2)
plywood (1D)
fibre (1G)
plastics (1H1, 1H2)

P115 Amend special packing provision PP60 to read as follows:

"PP60 For UN No. 0144, aluminium drums (1B1 and 1B2) and metal, other than steel or aluminium, drums (1N1 and 1N2) shall not be used."

P116 For "Outer packagings", "Boxes", after "aluminium (4B)", insert a new row to read: "other metal (4N)".

P116 Amend the entries under "Outer packagings", "Drums" and "Jerricans" to read:

Drums

steel (1A1, 1A2)
 aluminium (1B1, 1B2)
 other metal (1N1, 1N2)
 plywood (1D)
 fibre (1G)
 plastics (1H1, 1H2)

Jerricans

steel (3A1, 3A2)
 plastics (3H1, 3H2)

P130 For "Outer packagings", "Boxes", after "aluminium (4B)", insert a new row to read: "other metal (4N)".

P130 Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2)
 aluminium (1B1, 1B2)
 other metal (1N1, 1N2)
 plywood (1D)
 fibre (1G)
 plastics (1H1, 1H2)

P131 For "Outer packagings", "Boxes", after "aluminium (4B)", insert a new row to read: "other metal (4N)".

P131 Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2)
 aluminium (1B1, 1B2)
 other metal (1N1, 1N2)
 plywood (1D)
 fibre (1G)
 plastics (1H1, 1H2)

P132(a) For "Outer packagings", "Boxes", after "aluminium (4B)", insert a new row to read: "other metal (4N)".

P132(b) For "Inner packagings", "Receptacles", insert a new line to read: "wood".

P132(b) For "Outer packagings", "Boxes", after "aluminium (4B)", insert "other metal (4N)".

P133 For "Outer packagings", "Boxes", after "aluminium (4B)", insert a new row to read: "other metal (4N)".

P134 For "Outer packagings", "Boxes", after "aluminium (4B)", insert a new row to read: "other metal (4N)".

P134 Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)

P135 For "Outer packagings", "Boxes", after "aluminium (4B)", insert "other metal (4N)".

P135 Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)

P136 For "Outer packagings", "Boxes", after "aluminium (4B)", insert "other metal (4N)".

P136 Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)

P137 For "Inner packagings", "Boxes", insert a new row to read: "wood".

P137 For "Outer packagings", "Boxes", after "aluminium (4B)", insert "other metal (4N)".

P137 Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)

P138 For "Outer packagings", "Boxes", after "aluminium (4B)", insert a new row to read: "other metal (4N)".

P138 Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)

P139 For "Outer packagings", "Boxes", after "aluminium (4B)", insert a new row to read: "other metal (4N)".

P139 Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)

P140 For "Inner packagings", after the entries for bags, insert two new rows to read:

**"Receptacles
wood".**

P140 For "Outer packagings", "Boxes", after "aluminium (4B)", insert a new row to read: "other metal (4N)".

P140 Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)

P140 In special packing provision PP75, replace "steel or aluminium" with "steel, aluminium or other metal".

P141 For "Outer packagings", "Boxes", after "aluminium (4B)", insert a new row to read: "other metal (4N)".

P141 Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)

P142 For "Outer packagings", "Boxes", after "aluminium (4B)", insert a new row to read: "other metal (4N)".

P142 Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2)
aluminium (1B1, 1B2)
other metal (1N1, 1N2)
plywood (1D)
fibre (1G)
plastics (1H1, 1H2)

P143 For "Inner packagings", "Receptacles", insert a new line to read: "wood".

P143 For "Outer packagings", "Boxes", after "aluminium (4B)", insert "other metal (4N)".

P143 Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2)
aluminium (1B1, 1B2)
other metal (1N1, 1N2)
plywood (1D)
fibre (1G)
plastics (1H1, 1H2)

P144 For "Inner packagings", "Receptacles", insert a new line to read: "wood".

P144 For "Outer packagings", "Boxes", after "aluminium (4B)", insert a new row to read "other metal (4N)".

P144 Amend the entries under "Outer packagings", "Drums" to read:

steel (1A1, 1A2)
aluminium (1B1, 1B2)
other metal (1N1, 1N2)
plastics (1H1, 1H2)

P200 (2) In the French text, at the end, replace "1070, oxyde d'azote" with "1070, protoxyde d'azote".

P200 (3) (d), in the NOTE, at the end, replace "which approved the receptacles" with "which issued the type approval".

P200 (7) Renumber the existing paragraph (7) as subparagraph (7) (a) and add a new subparagraph (b) to read as follows:

"(b) LPG to be filled in cylinders shall be of high quality; this is deemed to be fulfilled if the LPG to be filled is in compliance with the limitations on corrosiveness as specified in ISO 9162."

P200 (9) At the end of the last paragraph, replace "by the competent authority of the Contracting Party to ADR which has approved the technical code for the design and construction" with "by the competent authority which issued the type approval".

P200 (10) At the beginning, delete "Keys for the column "Special packing provisions"".

P200 (10) Amend the first heading reading "Material compatibility (for gases see ISO 11114-1:1997 and ISO 11114-2:2000)" to read "Material compatibility".

P200 (10) Amend special packing provision *a* to read:

"a: Aluminium alloy pressure receptacles shall not be used."

P200 (10) Amend special packing provision *d* to read:

"d: When steel pressure receptacles are used, only those bearing the "H" mark in accordance with 6.2.2.7.4 (p) are permitted."

P200 (11) Delete the rows for standards "EN 1801:1998" and "EN 12754:2001" and add the following new row at the end:

Applicable requirements	Reference	Title of document
(10) p	EN ISO 11372:2011	Gas cylinders – Acetylene cylinders – Filling conditions and filling inspection (ISO 11372:2010)

P200 (12) In 2.5: Replace "the corrosion contaminates level of EN 1440:2008, annex E.1, letter b" with "the limitations on corrosiveness as specified in ISO 9162".

P200, Table 2: For UN Nos. 1008, 1076, 1741, 1859, 2189 and 2418, insert "a" in column "Special packing provisions".

P200, Table 3: For UN No. 1052, insert "a" in column "Special packing provisions".

P201 Amend to read as follows:

P201	PACKING INSTRUCTION	P201
This instruction applies to UN Nos. 3167, 3168 and 3169.		
The following packagings are authorized:		
(1) Cylinders and gas receptacles conforming to the construction, testing and filling requirements approved by the competent authority.		
(2) The following combination packagings provided that the general provisions of 4.1.1 and 4.1.3 are met:		
Outer packagings:		
Drums (1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 1G);		
Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2);		
Jerricans (3A1, 3A2, 3B1, 3B2, 3H1, 3H2).		
Inner packagings:		
(a) For non-toxic gases, hermetically sealed inner packagings of glass or metal with a maximum capacity of 5 litres per package;		
(b) For toxic gases, hermetically sealed inner packagings of glass or metal with a maximum capacity of 1 litre per package.		
Packagings shall conform to the packing group III performance level.		

P203 Under "Requirements for closed cryogenic receptacles", add a new paragraph (8) to read as follows:

"(8) Periodic inspection

The periodic inspection and test frequencies of pressure relief valves in accordance with 6.2.1.6.3 shall not exceed five years."

P301 Replace "vessel" with "receptacle" (eight times).

P302 Amend to read as follows:

P302	PACKING INSTRUCTION	P302
This instruction applies to UN No. 3269.		
The following combination packagings are authorized, provided that the general provisions of 4.1.1 and 4.1.3 are met:		
Outer packagings:		
Drums (1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 1G);		
Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2);		
Jerricans (3A1, 3A2, 3B1, 3B2, 3H1, 3H2);		
Inner packagings:		
The activator (organic peroxide) shall have a maximum quantity of 125 ml per inner packaging if liquid, and 500 g per inner packaging if solid.		
The base material and the activator shall be each separately packed in inner packagings.		
The components may be placed in the same outer packaging provided that they will not interact dangerously in the event of a leakage.		
Packagings shall conform to the packing group II or III performance level according to the criteria for Class 3 applied to the base material.		

P400 (2) In the first sentence, insert ", 4N" after "4B" and replace "drums (1A2, 1B2, 1N2, 1D or 1G) or jerricans (3A2 or 3B2)" with "drums (1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1D or 1G) or jerricans (3A1, 3A2, 3B1 or 3B2)".

P400 (3) In the first sentence, replace "4A or 4B" with "4A, 4B or 4N" and replace "Steel, aluminium or metal drums (1A2, 1B2 or 1N2), jerricans (3A2 or 3B2)" with "Steel, aluminium or metal drums (1A1, 1A2, 1B1, 1B2, 1N1 or 1N2), jerricans (3A1, 3A2, 3B1 or 3B2)".

P401 Amend paragraph (2) to read as follows:

"(2) Combination packagings:

Outer packagings:

Drums (1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 1G);

Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2);

Jerricans (3A1, 3A2, 3B1, 3B2, 3H1, 3H2).

Inner packagings:

Glass, metal or plastics which have threaded closures with a maximum capacity of 1 litre.

Each inner packaging shall be surrounded by inert cushioning and absorbent material in a quantity sufficient to absorb the entire contents.

The maximum net mass per outer packaging shall not exceed 30 kg."

P402 Amend paragraph (2) to read as follows:

"(2) Combination packagings:

Outer packagings:

Drums (1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 1G);

Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2);

Jerricans (3A1, 3A2, 3B1, 3B2, 3H1, 3H2).

Inner packagings with a maximum net mass as follows:

Glass	10 kg
Metal or plastics	15 kg

Each inner packaging shall be fitted with threaded closures.

Each inner packaging shall be surrounded by inert cushioning and absorbent material in a quantity sufficient to absorb the entire contents.

The maximum net mass per outer packaging shall not exceed 125 kg."

P403 For "Combination packagings", under "Outer packagings", amend the entries for "Drums" to read as follows (the values for Maximum net mass remain unchanged):

steel (1A1, 1A2)
aluminium (1B1, 1B2)
other metal (1N1, 1N2)
plastics (1H1, 1H2)
plywood (1D)
fibre (1G)

P403 For "Combination packagings", "Outer packagings", "Boxes", after "aluminium (4B)", insert the following row:

other metal (4N)	400 kg
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P403 For "Combination packagings", under "Outer packagings", amend the entries for "Jerricans" to read as follows (the values for Maximum net mass remain unchanged):

steel (3A1, 3A2)
aluminium (3B1, 3B2)
plastics (3H1, 3H2)

P404 (1) Amend the text in parentheses for "Outer packagings" to read "(1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 4A, 4B, 4N, 4C1, 4C2, 4D, 4F or 4H2)".

P405 (1) (a) Insert ", 4N" after "4B".

P406 (1) For "Outer packagings" replace "1H2 or 3H2" with "1H1, 1H2, 3H1 or 3H2".

P406 (2) Insert ", 4N" after "4B".

P407 Amend to read as follows:

P407	PACKING INSTRUCTION	P407
This instruction applies to UN Nos. 1331, 1944, 1945 and 2254.		
The following packagings are authorized, provided that the general provisions of 4.1.1 and 4.1.3 are met:		
Outer packagings:		
Drums (1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 1G);		
Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2);		
Jerricans (3A1, 3A2, 3B1, 3B2, 3H1, 3H2).		
Inner packagings:		
Matches shall be tightly packed in securely closed inner packagings to prevent accidental ignition under normal conditions of carriage.		
The maximum gross mass of the package shall not exceed 45 kg except for fibreboard boxes which shall not exceed 30 kg.		
Packagings shall conform to the packing group III performance level.		
Special packing provision:		
PP27 [Unchanged]		

P408 Amend to read as follows:

P408	PACKING INSTRUCTION	P408
This instruction applies to UN No. 3292.		
The following packagings are authorized, provided that the general provisions of 4.1.1 and 4.1.3 are met:		
(1) For cells:		
Drums (1A2, 1B2, 1N2, 1H2, 1D, 1G);		
Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2);		
Jerricans (3A2, 3B2, 3H2).		
There shall be sufficient cushioning material to prevent contact between cells and between cells and the internal surfaces of the outer packaging and to ensure that no dangerous movement of the cells within the outer packaging occurs in carriage.		
Packagings shall conform to the packing group II performance level.		
(2) Batteries may be carried unpacked or in protective enclosures (e.g. fully enclosed or wooden slatted crates). The terminals shall not support the weight of other batteries or materials packed with the batteries.		
Packagings need not meet the requirements of 4.1.1.3.		
Additional requirement:		
Cells and batteries shall be protected against short circuit and shall be isolated in such a manner as to prevent short circuits.		

P410 For "Combination packagings", under "Outer packagings", amend the entries for "Drums" to read as follows (the values for Maximum net mass remain unchanged):

steel (1A1, 1A2)
aluminium (1B1, 1B2)
other metal (1N1, 1N2)
plastics (1H1, 1H2)

plywood (1D) fibre (1G) ^a

P410 For "Combination packagings", "Outer packagings", "Boxes", after "aluminium (4B)", insert the following row:

other metal (4N)	400 kg	400 kg
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P410 For "Combination packagings", under "Outer packagings", amend the entries for "Jerricans" to read as follows (the values for Maximum net mass remain unchanged):

steel (3A1, 3A2) aluminium (3B1, 3B2) plastics (3H1, 3H2)

P410 For "Single packagings", "Boxes", after "aluminium (4B)^c", insert the following row:

other metal (4N) ^c	400 kg	400 kg
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P411 Amend to read as follows:

P411	PACKING INSTRUCTION	P411
This instruction applies to UN No. 3270.		
The following packagings are authorized, provided that the general provisions of 4.1.1 and 4.1.3 are met:		
<ul style="list-style-type: none"> Drums (1A2, 1B2, 1N2, 1H2, 1D, 1G); Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2); Jerricans (3A2, 3B2, 3H2); 		
provided that explosion is not possible by reason of increased internal pressure.		
The maximum net mass shall not exceed 30 kg.		

P500 Amend to read as follows:

P500	PACKING INSTRUCTION	P500
This instruction applies to UN No. 3356.		
The following packagings are authorized, provided that the general provisions of 4.1.1 and 4.1.3 are met:		
<ul style="list-style-type: none"> Drums (1A2, 1B2, 1N2, 1H2, 1D, 1G); Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2); Jerricans (3A2, 3B2, 3H2). 		
Packagings shall conform to the packing group II performance level.		
The generator(s) shall be carried in a package which meets the following requirements when one generator in the package is actuated:		
<ul style="list-style-type: none"> (a) Other generators in the package will not be actuated; (b) Packaging material will not ignite; and (c) The outside surface temperature of the completed package shall not exceed 100 °C. 		

P501 In the text for "Combination packagings", (1), insert ", 4N" after "4B" and replace "drums (1A2, 1B2, 1N2, 1H2, 1D) or jerricans (3A2, 3B2, 3H2)" with "drums (1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D) or jerricans (3A1, 3A2, 3B1, 3B2, 3H1, 3H2)".

P502 Amend the entries under "Outer packagings", "Drums" to read (the values for Maximum net mass remain unchanged):

steel (1A1, 1A2)
aluminium (1B1, 1B2)
other metal (1N1, 1N2)
plywood (1D)
fibre (1G)
plastics (1H1, 1H2)

P502 For "Combination packagings", "Boxes", after "aluminium (4B)", insert the following row:

other metal (4N)	125 kg
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P503 Amend the entries under "Outer packagings", "Drums" to read (the values for Maximum net mass remain unchanged):

steel (1A1, 1A2)
aluminium (1B1, 1B2)
other metal (1N1, 1N2)
plywood (1D)
fibre (1G)
plastics (1H1, 1H2)

P503 For "Combination packagings", "Boxes", after "aluminium (4B)", insert the following row:

other metal (4N)	125 kg
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P504 In the text for "Combination packagings", (1) and (2), amend the text before "outer packagings" to read "...1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 1G, 4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H2".

P504 In the text for "Combination packagings", (4), amend the text before "outer packagings" to read "...1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 4A, 4B, 4N, 4C1, 4C2, 4D, 4H2".

P520 (1) Insert ", 4N" after "4B" and replace "drums (1A2, 1B2, 1G, 1H2 and 1D), jerricans (3A2, 3B2 and 3H2)" with "drums (1A1, 1A2, 1B1, 1B2, 1G, 1H1, 1H2 and 1D), jerricans (3A1, 3A2, 3B1, 3B2, 3H1 and 3H2)".

P600 Amend the text in parentheses after "Outer packagings:" to read "(1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 1G, 4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H2)".

P601 (1), last indent Replace "1A2, 1B2, 1N2, 1H2" with "1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2" and insert ", 4N" after "4B".

P601 (2) Replace "1A2, 1B2, 1N2, 1H2" with "1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2" and insert ", 4N" after "4B".

P601 (3) After "Outer packagings:", replace "Steel or plastics drums, removable head (1A2 or 1H2)," with "Steel or plastics drums (1A1, 1A2, 1H1 or 1H2),".

P602 (1), last indent Replace "1A2, 1B2, 1N2, 1H2" with "1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2" and insert ", 4N" after "4B".

P602 (2) Replace "1A2, 1B2, 1N2, 1H2" with "1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2" and insert ", 4N" after "4B".

P620 Amend the first sub-paragraph (b) — before the additional requirements — to read as follows:

"(b) A rigid outer packaging:

- Drums (1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 1G);
- Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2);
- Jerricans (3A1, 3A2, 3B1, 3B2, 3H1, 3H2).

The smallest external dimension shall be not less than 100 mm."

P621 Amend to read as follows:

P621	PACKING INSTRUCTION	P621
This instruction applies to UN No. 3291.		
The following packagings are authorized provided that the general provisions of 4.1.1 except 4.1.1.15 and 4.1.3 are met:		
(1) Provided that there is sufficient absorbent material to absorb the entire amount of liquid present and the packaging is capable of retaining liquids:		
<ul style="list-style-type: none"> Drums (1A2, 1B2, 1N2, 1H2, 1D, 1G); Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2); Jerricans (3A2, 3B2, 3H2). 		
Packagings shall conform to the packing group II performance level for solids.		
(2) For packages containing larger quantities of liquid:		
<ul style="list-style-type: none"> Drums (1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 1G); Jerricans (3A1, 3A2, 3B1, 3B2, 3H1, 3H2); Composites (6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6HA2, 6HB2, 6HC, 6HD2, 6HG2, 6HH2, 6PA1, 6PB1, 6PG1, 6PD1, 6PH1, 6PH2, 6PA2, 6PB2, 6PC, 6PG2 or 6PD2). 		
Packagings shall conform to the packing group II performance level for liquids.		
Additional requirement:		
Packagings intended to contain sharp objects such as broken glass and needles shall be resistant to puncture and retain liquids under the performance test conditions in Chapter 6.1.		

P650 Amend paragraph (9) (a) including the NOTE to read as follows:

"(a) When dry ice or liquid nitrogen is used as a coolant, the requirements of 5.5.3 shall apply. When used, ice shall be placed outside the secondary packagings or in the outer packaging or an overpack. Interior supports shall be provided to secure the secondary packagings in the original position. If ice is used, the outside packaging or overpack shall be leakproof."

P800 Amend the entries under "Outer packagings", "Drums" to read (the values for Maximum net mass remain unchanged):

steel (1A1, 1A2) metal, other than steel or aluminium (1N1, 1N2) plastics (1H1, 1H2) plywood (1D) fibre (1G)
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P800 In paragraph (3) (d), for "Boxes", after "steel (4A)", insert the following row:

metal, other than steel or aluminium (4N)	400 kg
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P802 (1) Replace "1A2, 1B2, 1N2, 1H2, 1D, 4A, 4B, 4C1, 4C2, 4D, 4F, or 4H2" with "1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 1G, 4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G or 4H2".

P802 (2) Replace "1A2, 1B2, 1N2, 1H2, 1D, 1G, 4A, 4B, 4C1, 4C2, 4D, 4F, 4G or 4H2" with "1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 1G, 4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G or 4H2".

P803 (2) Insert ", 4N" after "4B".

P804 (1), last indent Replace "1A2, 1B2, 1N2, 1H2, 1D, 1G, 4A, 4B, 4C1, 4C2, 4D, 4F, 4G or 4H2" with "1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 1G, 4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G or 4H2".

P804 (2) Replace "1A2, 1B2, 1N2, 1H2, 1D, 1G, 4A, 4B, 4C1, 4C2, 4D, 4F, 4G or 4H2" with "1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 1G, 4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G or 4H2".

P804 (3) After "Outer packagings:", replace "Steel or plastics drums, removable head (1A2 or 1H2)" with "Steel or plastics drums (1A1, 1A2, 1H1 or 1H2)".

P901 Amend to read as follows:

P901	PACKING INSTRUCTION	P901
	This instruction applies to UN No. 3316.	
	The following combination packagings are authorized provided the general provisions of 4.1.1 and 4.1.3 are met: Drums (1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 1G); Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2); Jerricans (3A1, 3A2, 3B1, 3B2, 3H1, 3H2). Packagings shall conform to the performance level consistent with the packing group assigned to the kit as a whole (see special provision 251 of chapter 3.3). Maximum quantity of dangerous goods per outer packaging: 10 kg excluding the mass of any carbon dioxide, solid (dry ice) used as a refrigerant.	
	Additional requirement: Dangerous goods in kits shall be packed in inner packagings which shall not exceed either 250 ml or 250 g and shall be protected from other materials in the kit.	

P902 Amend to read as follows:

P902	PACKING INSTRUCTION	P902
This instruction applies to UN No. 3268.		
Packaged articles:		
The following packagings are authorized provided the general provisions of 4.1.1 and 4.1.3 are met:		
Drums (1A2, 1B2, 1N2, 1H2, 1D, 1G);		
Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2);		
Jerricans (3A2, 3B2, 3H2).		
Packagings shall conform to the packing group III performance level.		
The packagings shall be designed and constructed so as to prevent movement of the articles and inadvertent operation during normal conditions of carriage.		
Unpackaged articles:		
The articles may also be carried unpackaged in dedicated handling devices, vehicles or containers when moved from where they are manufactured to an assembly plant.		
Additional requirement:		
Any pressure receptacle shall be in accordance with the requirements of the competent authority for the substance(s) contained therein.		

P903 Amend to read as follows:

P903	PACKING INSTRUCTION	P903
This instruction applies to UN Nos. 3090, 3091, 3480 and 3481.		
The following packagings are authorized provided that the general provisions of 4.1.1 and 4.1.3 are met:		
(1) For cells and batteries:		
Drums (1A2, 1B2, 1N2, 1H2, 1D, 1G);		
Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2);		
Jerricans (3A2, 3B2, 3H2).		
Cells or batteries shall be packed in packagings so that the cells or batteries are protected against damage that may be caused by the movement or placement of the cells or batteries within the packaging.		
Packagings shall conform to the packing group II performance level.		
(2) In addition for cells or batteries with a gross mass of 12 kg or more employing a strong, impact resistant outer casing, and assemblies of such cells or batteries:		
(a) Strong outer packagings, in protective enclosures (e.g., in fully enclosed or wooden slatted crates); or		
(b) Pallets or other handling devices.		
Cells or batteries shall be secured to prevent inadvertent movement, and the terminals shall not support the weight of other superimposed elements.		
Packagings need not meet the requirements of 4.1.1.3.		
(3) For cells or batteries packed with equipment:		
Packagings conforming to the requirements in paragraph (1) of this packing instruction, then placed with the equipment in an outer packaging; or		
Packagings that completely enclose the cells or batteries, then placed with equipment in a packaging conforming to the requirements in paragraph (1) of this packing instruction.		
The equipment shall be secured against movement within the outer packaging.		
For the purpose of this packing instruction, "equipment" means apparatus requiring the lithium metal or lithium ion cells or batteries with which it is packed for its operation.		
(4) For cells or batteries contained in equipment:		
Strong outer packagings constructed of suitable material, and of adequate strength and design in relation to the packaging capacity and its intended use. They shall be constructed in such a manner as to prevent accidental operation during carriage. Packagings need not meet the requirements of 4.1.1.3.		
Large equipment can be offered for carriage unpackaged or on pallets when the cells or batteries are afforded equivalent protection by the equipment in which they are contained.		
Devices such as radio frequency identification (RFID) tags, watches and temperature loggers, which are not capable of generating a dangerous evolution of heat, may be carried when intentionally active in strong outer packagings.		
Additional requirement:		
Cells or batteries shall be protected against short circuit.		

P904 Amend the additional requirement including the Note to read as follows:

"Additional requirement:

Ice, dry ice and liquid nitrogen

When dry ice or liquid nitrogen is used as a coolant, the requirements of 5.5.3 shall apply. When used, ice shall be placed outside the secondary packagings or in the outer packaging

or an overpack. Interior supports shall be provided to secure the secondary packaging in the original position. If ice is used, the outside packaging or overpack shall be leakproof."

4.1.4.1 Add the following new packing instructions:

P206	PACKING INSTRUCTION	P206
This instruction applies to UN Nos. 3500, 3501, 3502, 3503, 3504 and 3505.		
Unless otherwise indicated in ADR, cylinders and pressure drums conforming to the applicable requirements of Chapter 6.2 are authorized.		
<ol style="list-style-type: none"> (1) The special packing provisions of 4.1.6 shall be met. (2) The maximum test period for periodic inspection shall be 5 years. (3) Cylinders and pressure drums shall be so filled that at 50 °C the non-gaseous phase does not exceed 95% of their water capacity and they are not completely filled at 60 °C. When filled, the internal pressure at 65 °C shall not exceed the test pressure of the cylinders and pressure drums. The vapour pressures and volumetric expansion of all substances in the cylinders and pressure drums shall be taken into account. (4) The minimum test pressure shall be in accordance with packing instruction P200 for the propellant but shall not be less than 20 bar. 		
Additional requirement:		
Cylinders and pressure drums shall not be offered for carriage when connected with spray application equipment such as a hose and wand assembly.		
Special packing provision:		
PP89 For UN Nos. 3501, 3502, 3503, 3504 and 3505, notwithstanding 4.1.6.9 (b), non-refillable cylinders used may have a water capacity in litres not exceeding 1 000 litres divided by the test pressure expressed in bars provided capacity and pressure restrictions of the construction standard comply with ISO 11118:1999, which limits the maximum capacity to 50 litres.		

P207	PACKING INSTRUCTION	P207
This instruction applies to UN No. 1950.		
The following packagings are authorized, provided that the general provisions of 4.1.1 and 4.1.3 are met:		
(a) Drums (1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 1G); Boxes (4A, 4B, 4N, 4C1, 4C2, 4D, 4F, 4G, 4H1, 4H2). Packagings shall conform to the packing group II performance level.		
(b) Rigid outer packagings with a maximum net mass as follows: Fibreboard 55 kg Other than fibreboard 125 kg The provisions of 4.1.1.3 need not be met.		
The packagings shall be designed and constructed to prevent movement of the aerosols and inadvertent discharge during normal conditions of carriage.		
Special packing provision:		
PP87 For UN 1950 waste aerosols carried in accordance with special provision 327, the packagings shall have a means of retaining any free liquid that might escape during carriage, e.g. absorbent material. The packagings shall be adequately ventilated to prevent the creation of flammable atmosphere and the build-up of pressure.		
Special packing provision specific to RID and ADR:		
RR6 For UN 1950 in the case of carriage by full load, metal articles may also be packed as follows: The articles shall be grouped together in units on trays and held in position with an appropriate plastics cover; these units shall be stacked and suitably secured on pallets.		

Renumber existing P206 as P208.

4.1.4.2

IBC520 For UN 3119, in the entry for "Di-(3,5,5-trimethylhexanoyl) peroxide, not more than 38% in diluent type A", in column "Organic peroxide", replace "38%" with "52%". For UN 3119, in the entry for "1,1,3,3-Tetramethylbutyl peroxyneodecanoate, not more than 52%, stable dispersion, in water", insert the following new row:

<i>Type of IBC</i>	<i>Maximum quantity (litres)</i>	<i>Control temperature</i>	<i>Emergency temperature</i>
31HA1	1 000	-5 °C	+5 °C

Insert the following new entries:

<i>UN No</i>	<i>Organic peroxide</i>	<i>Type of IBC</i>	<i>Maximum quantity (litres)</i>	<i>Control temperature</i>	<i>Emergency temperature</i>
3119	Diisobutyl peroxide, not more than 28% as a stable dispersion in water	31HA1	1 000	-20 °C	-10 °C
		31A	1 250	-20 °C	-10 °C
3119	Diisobutyl peroxide, not more than 42% as a stable dispersion in water	31HA1	1 000	-25 °C	-15 °C
		31A	1 250	-25 °C	-15 °C

4.1.4.3

LP902 Before "The following packagings are authorized...", insert a new heading to read "**Packaged articles:**" and before "The articles may also...", insert a paragraph break and a new heading to read "**Unpackaged articles:**". In the additional requirement, replace "pressure vessel" with "pressure receptacle" (twice).

4.1.5.17 Replace "1A2, 1B2" with "1A1, 1A2, 1B1, 1B2".

4.1.6.5 In the first sentence, add "and, in case of a chemical under pressure, for the propellant" after "authorized for the substance".

4.1.6.10 In the first sentence, replace "or P205" with ", P205 or P206".

Add a new second sentence to read as follows: "Pressure relief valves for closed cryogenic receptacles shall be subject to periodic inspections and tests according to the provisions of 6.2.1.6.3 and packing instruction P203."

4.1.6.15 In the first line for 4.1.6.8 (b) and (c), replace "ISO 11117:1998" with "either ISO 11117:1998 or ISO 11117:2008 + Cor 1:2009".

4.1.6.15 In the Table, replace "ISO 11621:2005" with: "ISO 11621:1997".

Under the title of this standard, insert a Note to read as follows:

"NOTE: *The EN version of this ISO standard fulfils the requirements and may also be used.*"

In the Table, replace "Annex A of EN ISO 10297:2006" with: "Annex A of ISO 10297:2006".

Under the title of this standard, insert a Note to read as follows:

"NOTE: *The EN version of this ISO standard fulfils the requirements and may also be used.*"

4.1.8.2 Replace "4.1.1.16" with "4.1.1.17".

Chapter 4.2

4.2.2 In the heading, add "and chemicals under pressure" at the end.

4.2.2.1 At the end, add "and chemicals under pressure".

4.2.2.2 In the second sentence, insert "and chemicals under pressure" after "Non-refrigerated liquefied gases".

4.2.2.7.1 In the first sentence, insert "or the propellant of the chemical under pressure" after "for the non-refrigerated liquefied gas" and insert ", or with chemicals under pressure" after "loaded with non-refrigerated liquefied gases". In the second sentence, insert "or propellant of chemicals under pressure" after "the temperature of the non-refrigerated liquefied gas".

4.2.5.2.6

T50 In the second heading row, amend the first sentence to read as follows "This portable tank instruction applies to non-refrigerated liquefied gases and chemicals under pressure (UN Nos. 3500, 3501, 3502, 3503, 3504 and 3505)".

T50 In the heading of the last column, replace "Maximum filling density (kg/l)" with "Maximum filling ratio".

T50 For UN No. 3220, in the last column (Maximum filling ratio), replace "0.95" with "0.87".

T50 Add the following new entries:

<i>UN No.</i>	<i>Non-refrigerated liquefied gases</i>	<i>Max. allowable working pressure (bar)</i>	<i>Openings below liquid level</i>	<i>Pressure-relief requirements (see 6.7.3.7)</i>	<i>Maximum filling ratio</i>
3500	Chemical under pressure, n.o.s.	See MAWP definition in 6.7.3.1	Allowed	See 6.7.3.7.3	TP4 ^c
3501	Chemical under pressure, flammable, n.o.s.	See MAWP definition in 6.7.3.1	Allowed	See 6.7.3.7.3	TP4 ^c
3502	Chemical under pressure, toxic, n.o.s.	See MAWP definition in 6.7.3.1	Allowed	See 6.7.3.7.3	TP4 ^c
3503	Chemical under pressure, corrosive, n.o.s.	See MAWP definition in 6.7.3.1	Allowed	See 6.7.3.7.3	TP4 ^c
3504	Chemical under pressure, flammable, toxic, n.o.s.	See MAWP definition in 6.7.3.1	Allowed	See 6.7.3.7.3	TP4 ^c
3505	Chemical under pressure, flammable, corrosive, n.o.s.	See MAWP definition in 6.7.3.1	Allowed	See 6.7.3.7.3	TP4 ^c

4.2.5.3 Insert new portable tank special provisions TP38, TP39 and TP40 to read as follows:

"TP38 Portable tank instruction T9 prescribed in ADR applicable up to 31 December 2012 may continue to be applied until 31 December 2018."

"TP39 Portable tank instruction T4 prescribed in ADR applicable up to 31 December 2012 may continue to be applied until 31 December 2018."

"TP40 Portable tanks shall not be carried when connected with spray application equipment."

Chapter 4.3

4.3.2.2.1 (a) and (b) Replace "venting system" with "breather device".

4.3.2.3.3 Amend the last two sentences to read as follows: "After filling, the filler shall ensure that all the closures of the tanks, battery-vehicles and MEGCs are in the closed position and there is no leakage. This also applies to the upper part of the dip tube."

^c For UN Nos. 3500, 3501, 3502, 3503, 3504 and 3505, the degree of filling shall be considered instead of the maximum filling ratio.

4.3.3.1.1 NOTE 2 becomes NOTE 3.

Insert a new NOTE 2 to read as follows:

"NOTE 2: *The special provision TU40 indicated in Column (13) of Table A in Chapter 3.2 for certain gases means that the gas may only be carried in a battery-vehicle or MEGC, the elements of which are composed of seamless receptacles."*

4.3.3.2.5 In the Table, insert the following new rows:

UN No.	Name	Classification code	Minimum test pressure for tanks				Maximum permissible mass of contents per litre of capacity kg
			With thermal insulation		Without thermal insulation		
			MPa	bar	MPa	bar	
1075	Petroleum gases, liquefied	2F	See 4.3.3.2.2 or 4.3.3.2.3				
1081	Tetrafluoroethylene, stabilized	2F	only in battery-vehicles and MEGCs composed of seamless receptacles				

Add a new 4.3.3.3.4 to read as follows:

"4.3.3.3.4 When the external overpressure could be greater than the tank resistance to external pressure (e.g. due to low ambient temperatures), adequate measures shall be taken to protect tanks carrying low pressure liquefied gases against the risk of deformation, e.g. by filling them with nitrogen or another inert gas in order to maintain sufficient pressure inside the tank."

4.3.4.1.1 In the table, for "Part 4":

For "V =" and "F =" Replace "venting system," with "breather device" and replace "flame trap" with "device protecting against the propagation of a flame".

For "N =" Replace "venting system" with "breather device".

4.3.4.1.3 (c) At the end, add "UN No. 1402 calcium carbide, packing group I: code S2.65AN;"

4.3.5 In special provision TU22, before "a space of 5%", insert: "for liquids,".

Add a new special provision TU40 to read as follows:

"TU40 Only to be carried in battery-vehicles or MEGCs, the elements of which are composed of seamless receptacles."

Chapter 4.5

4.5.2.2 Amend to read as follows:

"4.5.2.2 For carriage of liquids meeting the flash point criteria of Class 3, vacuum-operated waste tanks shall be filled through filling devices which discharge into the tank at a low level. Measures shall be taken to minimize the production of spray."

Part 5

Chapter 5.1

5.1.2.1 (a) Amend subparagraph (ii) and the subsequent paragraph to read as follows:

"(ii) marked with the UN number preceded by the letters "UN", labelled as required for packages in 5.2.2 and marked with the environmentally hazardous substance mark if required for packages in 5.2.1.8, for each item of dangerous goods contained in the overpack;

unless the UN numbers, the labels and the environmentally hazardous substance mark representative of all dangerous goods contained in the overpack are visible, except as required in 5.2.2.1.11. If the same UN number, the same label or the environmentally hazardous substance mark is required for different packages, it only needs to be applied once."

Chapter 5.2

5.2.1.1 Insert the following new second sentence: "The UN number and the letters "UN" shall be at least 12 mm high, except for packages of 30 litres capacity or less or of 30 kg maximum net mass and for cylinders of 60 litres water capacity or less, when they shall be at least 6 mm in height and except for packages of 5 litres or 5 kg or less when they shall be of an appropriate size."

5.2.1.3 Insert "and salvage pressure receptacles" after "salvage packagings".

5.2.1.8.3 Add the following new NOTE at the end:

***NOTE:** The labelling provisions of 5.2.2 apply in addition to any requirement for packages to bear the environmentally hazardous substance mark."*

5.2.1.9.2 Amend to read as follows:

"5.2.1.9.2 Orientation arrows are not required on:

(a) Outer packagings containing pressure receptacles except cryogenic receptacles;

(b) Outer packagings containing dangerous goods in inner packagings each containing not more than 120 ml, with sufficient absorbent material between the inner and outer packagings to completely absorb the liquid contents;

(c) Outer packagings containing Class 6.2 infectious substances in primary receptacles each containing not more than 50 ml;

(d) Type IP-2, type IP-3, type A, type B(U), type B(M) or type C packages containing Class 7 radioactive material;

(e) Outer packagings containing articles which are leak-tight in all orientations (e.g. alcohol or mercury in thermometers, aerosols, etc.); or

(f) Outer packagings containing dangerous goods in hermetically sealed inner packagings each containing not more than 500 ml."

5.2.2.1.2 In the first paragraph, add "and the environmentally hazardous substance mark when appropriate" after "specified in this section". In the second paragraph, add "and the environmentally hazardous substance mark (see 5.2.1.8.3)" before "may overlap to the extent".

Chapter 5.3

5.3.1.7.2 In the description under the placard in accordance with Model No. 7D, delete ", when required," and replace "(see 5.3.2.1.2)" with ",".

5.3.1.7.3 Add the following sentence at the end: "If these labels are not visible from outside the carrying vehicle, placards according to 5.3.1.7.1 shall also be affixed to both sides and at the rear of the vehicle."

5.3.2.1.1 Add the following new paragraph at the end:

"If a trailer containing dangerous goods is detached from its motor vehicle during carriage of dangerous goods, an orange-coloured plate shall remain affixed to the rear of the trailer."

5.3.2.3.2 Insert the following new lines:

"28 gas, corrosive"

"238 gas, flammable corrosive"

Chapter 5.4

5.4.1.1.5 Amend to read as follows:

"5.4.1.1.5 *Special provisions for salvage packagings and salvage pressure receptacles*

When dangerous goods are carried in a salvage packaging or salvage pressure receptacle, the words "**SALVAGE PACKAGING**" or "**SALVAGE PRESSURE RECEPTACLE**" shall be added after the description of the goods in the transport document."

5.4.1.1.18 In the first sub-paragraph after "ENVIRONMENTALLY HAZARDOUS", insert: "or "MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS"".

In the second sub-paragraph, delete: "instead of "ENVIRONMENTALLY HAZARDOUS"".

5.4.2 In footnote 5:

In 5.4.2.3 For "dangerous goods documentation" read "container/vehicle packing certificate".

In 5.4.2.4 For "dangerous goods transport information" read "container/vehicle packing certificate".

Chapter 5.5

Add the following new section:

5.5.3 Special provisions applicable to packages and vehicles and containers containing substances presenting a risk of asphyxiation when used for cooling or conditioning purposes (such as dry ice (UN 1845) or nitrogen, refrigerated liquid (UN 1977) or argon, refrigerated liquid (UN 1951))

5.5.3.1 Scope

5.5.3.1.1 This section is not applicable to substances which may be used for cooling or conditioning purposes when carried as a consignment of dangerous goods. When they are

carried as a consignment, these substances shall be carried under the relevant entry of Table A in Chapter 3.2 in accordance with the associated conditions of carriage.

5.5.3.1.2 This section is not applicable to gases in cooling cycles.

5.5.3.1.3 Dangerous goods used for cooling or conditioning tanks or MEGCs during carriage are not subject to this section.

5.5.3.2 General

5.5.3.2.1 Vehicles and containers containing substances used for cooling or conditioning purposes (other than fumigation) during carriage are not subject to any provisions of ADR other than those of this section.

5.5.3.2.2 When dangerous goods are loaded in cooled or conditioned vehicles and containers any provisions of ADR relevant to these dangerous goods apply in addition to the provisions of this section.

5.5.3.2.3 *(Reserved)*

5.5.3.2.4 Persons engaged in the handling or carriage of cooled or conditioned vehicles and containers shall be trained commensurate with their responsibilities.

5.5.3.3 Packages containing a coolant or conditioner

5.5.3.3.1 Packaged dangerous goods requiring cooling or conditioning assigned to packing instructions P203, P620, P650, P800, P901 or P904 of 4.1.4.1 shall meet the appropriate requirements of that packing instruction.

5.5.3.3.2 For packaged dangerous goods requiring cooling or conditioning assigned to other packing instructions, the packages shall be capable of withstanding very low temperatures and shall not be affected or significantly weakened by the coolant or conditioner. Packages shall be designed and constructed to permit the release of gas to prevent a build-up of pressure that could rupture the packaging. The dangerous goods shall be packed in such a way as to prevent movement after the dissipation of any coolant or conditioner.

5.5.3.3.3 Packages containing a coolant or conditioner shall be carried in well ventilated vehicles and containers.

5.5.3.4 Marking of packages containing a coolant or conditioner

5.5.3.4.1 Packages containing dangerous goods used for cooling or conditioning shall be marked with the name indicated in Column (2) of Table A of Chapter 3.2 of these dangerous goods followed by the words "AS COOLANT" or "AS CONDITIONER" as appropriate in an official language of the country of origin and also, if that language is not English, French or German, in English, French or German, unless agreements concluded between the countries concerned in the transport operation provide otherwise.

5.5.3.4.2 The markings shall be durable, legible and placed in such a location and of such a size relative to the package as to be readily visible.

5.5.3.5 Vehicles and containers containing unpackaged dry ice

5.5.3.5.1 If dry ice in unpackaged form is used, it shall not come into direct contact with the metal structure of a vehicle or container to avoid embrittlement of the metal. Measures shall be taken to provide adequate insulation between the dry ice and the vehicle or container by providing a minimum of 30 mm separation (e.g. by using suitable low heat conducting materials such as timber planks, pallets etc).

5.5.3.5.2 Where dry ice is placed around packages, measures shall be taken to ensure that packages remain in the original position during carriage after the dry ice has dissipated.

5.5.3.6 Marking of vehicles and containers

5.5.3.6.1 Vehicles and containers containing dangerous goods used for cooling or conditioning shall be marked with a warning mark, as specified in 5.5.3.6.2 affixed at each access point in a location where it will be easily seen by persons opening or entering the vehicle or container. This mark shall remain on the vehicle or container until the following provisions are met:

- (a) The vehicle or container has been ventilated to remove harmful concentrations of coolant or conditioner; and
- (b) The cooled or conditioned goods have been unloaded.

5.5.3.6.2 The warning mark shall be rectangular and shall not be less than 150 mm wide and 250 mm high. The warning mark shall include:

(a) The word "WARNING" in red or white with lettering not less than 25 mm high in an official language of the country of origin and also, if that language is not English, French or German, in English, French or German, unless agreements concluded between the countries concerned in the transport operation provide otherwise; and

(b) The name indicated in Column (2) of Table A of Chapter 3.2 followed by the words "AS COOLANT" or "AS CONDITIONER" as appropriate, shown below the symbol in black letters on a white background with lettering not less than 25 mm high in an official language of the country of origin and also, if that language is not English, French or German, in English, French or German, unless agreements concluded between the countries concerned in the transport operation provide otherwise.

For example: CARBON DIOXIDE, SOLID, AS COOLANT.

An illustration of this mark is given below.



* Insert the name indicated in Column (2) of Table A of Chapter 3.2 followed by the words "AS COOLANT" or "AS CONDITIONER" as appropriate.

5.5.3.7 Documentation

5.5.3.7.1 Documents (such as a bill of lading, cargo manifest or CMR/CIM consignment note) associated with the carriage of vehicles or containers that have been cooled or conditioned and have not been completely ventilated before carriage shall include the following information:

(a) The UN number preceded by the letters "UN"; and

(b) The name indicated in Column (2) of Table A of Chapter 3.2 followed by the words "AS COOLANT" or "AS CONDITIONER" as appropriate in an official language of the country of origin and also, if that language is not English, French or German, in English, French or German, unless agreements, if any, concluded between the countries concerned in the transport operation provide otherwise.

For example: UN 1845, CARBON DIOXIDE, SOLID, AS COOLANT.

5.5.3.7.2 The transport document may be in any form, provided it contains the information required in 5.5.3.7.1. This information shall be easy to identify, legible and durable."

Part 6

Chapter 6.1

6.1.2.7 In the table, under "4. Boxes", after the entries for "H. Plastics", insert the following row:

N. Metal, other than steel or aluminium	4N	6.1.4.14
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6.1.3.1 (a) (i) In the second sentence, insert a reference to a footnote 2 after "or 6.7". The text of the footnote reads as follows:

"² This symbol is also used to certify that flexible bulk containers authorized for others modes of transport complies with the requirements in Chapter 6.8 of the UN Model Regulations."

As a consequence, renumber footnotes 2 and 3 of Chapter 6.1 as footnotes 3 and 4.

6.1.4.14 Amend to read as follows:

"6.1.4.14 *Steel, aluminium or other metal boxes*

4A steel boxes

4B aluminium boxes

4N metal, other than steel or aluminium, boxes".

6.1.5.2.6 In the first paragraph, replace "4.1.1.19" with "4.1.1.21".

6.1.5.2.7 In the first sentence, replace "4.1.1.19" with "4.1.1.21". In the last sentence, replace "4.1.1.19.2" with "4.1.1.21.2".

Chapter 6.2

6.2.1.1.5 Amend the first sentence to read as follows: "The test pressure of cylinders, tubes, pressure drums and bundles of cylinders shall be in accordance with packing instruction P200 of 4.1.4.1, or, for a chemical under pressure, with packing instruction P206 of 4.1.4.1."

6.2.1.6.1 At the end, amend NOTE 4 to read as follows:

"NOTE 4: *For the periodic inspection and test frequencies, see packing instruction P200 of 4.1.4.1 or, for a chemical under pressure, packing instruction P206 of 4.1.4.1.*"

Add a new paragraph 6.2.1.6.3 to read as follows:

"6.2.1.6.3 Pressure relief valves for closed cryogenic receptacles shall be subject to periodic inspections and tests."

6.2.2.3 In the first table, amend the row for ISO 11117:1998 to read as follows:

ISO 11117:2008 + Cor 1:2009	Gas cylinders – Valve protection caps and valve guards – Design, construction and tests NOTE: <i>Construction according to ISO 11117:1998 may continue until 31 December 2014.</i>
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At the end of the first table, add a new row to read as follows:

ISO 13340:2001	Transportable gas cylinders – Cylinder valves for non-refillable cylinders – Specification and prototype testing
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6.2.2.4 Insert the following new row in the table:

ISO 10460:2005	Gas cylinders – Welded carbon-steel gas cylinders – Periodic inspection and testing NOTE: <i>The repair of welds described in clause 12.1 of this standard shall not be permitted. Repairs described in clause 12.2 require the approval of the competent authority which approved the periodic inspection and test body in accordance with 6.2.2.6.</i>
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6.2.2.7.2 (a) and 6.2.2.9.2 (a) In the second sentence, insert a reference to a footnote 2 after "or 6.7.". The text of the footnote reads as follows:

² This symbol is also used to certify that flexible bulk containers authorized for others modes of transport complies with the requirements in Chapter 6.8 of the UN Model Regulations."

As a consequence, renumber footnotes 2 to 4 of Chapter 6.2 as footnotes 3 to 5.

6.2.2.7.7 a) After "and test" insert "as indicated by the distinguishing signs of motor vehicles in international traffic³".

6.2.3.4.1 Delete the whole text after "with the requirements of 6.2.1.5".

³ *Distinguishing signs for motor vehicles in international traffic prescribed in the Vienna Convention on Road Traffic (1968).*

6.2.3.6.1 In the first paragraph after the table, at the beginning, replace "The conformity assessment of valves and other accessories" with "For refillable pressure receptacles, the conformity assessment of valves and other demountable accessories".

6.2.3.9 Add the following new 6.2.3.9.7:

"6.2.3.9.7 *Marking of bundles of cylinders*

6.2.3.9.7.1 Individual cylinders in a bundle of cylinders shall be marked in accordance with 6.2.3.9.

6.2.3.9.7.2 A plate permanently attached to the frame of the bundle shall bear the following markings:

(a) The certification marks specified in 6.2.2.7.2 (b), (c), (d) and (e);

(b) The operational marks specified in 6.2.2.7.3 (f), (i), (j) and the gross mass which shall include the mass of the frame of the bundle and all permanently attached parts (cylinders, manifold, fittings and valves). Bundles intended for the carriage of UN No. 1001 acetylene, dissolved and UN No. 3374 acetylene, solvent free shall bear the tare mass as specified in paragraph (a) (6) of clause 5.4 of EN 12755:2000; and

(c) The manufacturing marks specified in 6.2.2.7.4 (n), (o) and, where applicable, (p).

6.2.3.9.7.3 The marks shall be placed in three groups:

(a) The manufacturing marks shall be the top grouping and shall appear consecutively in the sequence given in 6.2.3.9.7.2 (c);

(b) The operational marks in 6.2.3.9.7.2 (b) shall be the middle grouping and the operational mark specified in 6.2.2.7.3 (f) shall be immediately preceded by the operational mark specified in 6.2.2.7.3 (i) when the latter is required;

(c) Certification marks shall be the bottom grouping and shall appear in the sequence given in 6.2.3.9.7.2 (a).".

Add a new 6.2.3.11 to read as follows:

"6.2.3.11 *Salvage pressure receptacles*

6.2.3.11.1 To permit the safe handling and disposal of the pressure receptacles carried within the salvage pressure receptacle, the design may include equipment not otherwise used for cylinders or pressure drums such as flat heads, quick opening devices and openings in the cylindrical part.

6.2.3.11.2 Instructions on the safe handling and use of the salvage pressure receptacle shall be clearly shown in the documentation for the application to the competent authority of the country of approval and shall form part of the approval certificate. In the approval certificate, the pressure receptacles authorized to be carried in a salvage pressure receptacle shall be indicated. A list of the materials of construction of all parts likely to be in contact with the dangerous goods shall also be included.

6.2.3.11.3 A copy of the approval certificate shall be delivered by the manufacturer to the owner of a salvage pressure receptacle.

6.2.3.11.4 The marking of salvage pressure receptacles according to 6.2.3 shall be determined by the competent authority of the country of approval taking into account suitable marking provisions of 6.2.3.9 as appropriate. The marking shall include the water capacity and test pressure of the salvage pressure receptacle.".

6.2.4.1 In the table under "*for design and construction*", make the following amendments:

In the entry for standard "EN 1964-1:1999", in column (4), replace "Until further notice" with "Until 31 December 2014".

In column (4), for standard "EN 1975:1999 + A1:2003", replace "Until further notice" with "Before 1 January 2015".

In the entry for standard "EN 1964-2:2001", in column (4), replace "Until further notice" with "Until 31 December 2014".

After the entry for standard "EN 1964-2:2001", insert the following standards:

(1)	(2)	(3)	(4)	(5)
EN ISO 9809-1:2010	Gas cylinders — Refillable seamless steel gas cylinders — Design, construction and testing – Part 1: Quenched and tempered steel cylinders with tensile strength less than 1100 MPa (ISO 9809-1:2008)	6.2.3.1 and 6.2.3.4	Until further notice	
EN ISO 9809-2:2010	Gas cylinders — Refillable seamless steel gas cylinders — Design, construction and testing – Part 2: Quenched and tempered steel cylinders with tensile strength greater than or equal to 1100 MPa (ISO 9809-2:2008)	6.2.3.1 and 6.2.3.4	Until further notice	
EN ISO 9809-3:2010	Gas cylinders — Refillable seamless steel gas cylinders — Design, construction and testing – Part 3: Normalized steel cylinders (ISO 9809-3:2008)	6.2.3.1 and 6.2.3.4	Until further notice	

In the row for standard "EN 12245:2002", amend the text in column (4) to read "Before 1 January 2015".

After the row for standard "EN 12245:2002", add a new row to read as follows:

(1)	(2)	(3)	(4)	(5)
EN 12245:2009 +A1:2011	Transportable gas cylinders – Fully wrapped composite cylinders	6.2.3.1 and 6.2.3.4	Until further notice	

In the row for standard "EN 13769:2003 +A1:2005" amend the text in column (4) to read "Before 1 January 2015".

After the row for standard "EN 13769:2003 +A1:2005", add a new row to read as follows:

(1)	(2)	(3)	(4)	(5)
EN ISO 10961:2012	Gas cylinders – Cylinder bundles – Design, manufacture, testing and inspection	6.2.3.1 and 6.2.3.4	Until further notice	

At the end, add the following new standards:

(1)	(2)	(3)	(4)	(5)
EN ISO 7866:2011	Gas cylinders – Refillable seamless aluminium alloy gas cylinders – Design, construction and testing (ISO/DIS 7866:2011)	6.2.3.1 and 6.2.3.4	Until further notice	
EN 14638-3:2010	Transportable gas cylinders — Refillable welded receptacles of a capacity not exceeding 150 litres — Part 3: Welded carbon steel cylinders made to a design justified by experimental methods	6.2.3.1 and 6.2.3.4	Until further notice	

6.2.4.1 In the Table, under "for closures", make the following amendments:

Amend the text in column (3) for the seven existing entries to read "6.2.3.1 and 6.2.3.3".

For reference "EN 849:1996 (except Annex A)", add in column (5) "31 December 2014".

For reference "EN 849:1996 + A2:2001", add in column (5) "31 December 2016".

Before the entry for standard "EN 13152:2001", insert the following standard:

(1)	(2)	(3)	(4)	(5)
EN ISO 14245:2010	Gas cylinders – Specifications and testing of LPG cylinder valves – Self-closing (ISO 14245:2006)	6.2.3.1 and 6.2.3.3	Until further notice	

In the entry for standard "EN 13152:2001 + A1:2003", in column (4), replace "Until further notice" with "Between 1 January 2009 and 31 December 2014".

Before the entry for standard "EN 13153:2001", insert the following standard:

(1)	(2)	(3)	(4)	(5)
EN ISO 15995:2010	Gas cylinders – Specifications and testing of LPG cylinder valves – Manually operated (ISO 15995:2006)	6.2.3.1 and 6.2.3.3	Until further notice	

In the entry for standard "EN 13153:2001 + A1:2003", in column (4), replace "Until further notice" with "Between 1 January 2009 and 31 December 2014".

After standard "EN 13153:2001 + A1:2003", insert the following new standard:

(1)	(2)	(3)	(4)	(5)
EN ISO 13340:2001	Transportable gas cylinders – Cylinder valves for non-refillable cylinders – Specification and prototype testing	6.2.3.1 and 6.2.3.3	Until further notice	

6.2.4.2 Replace the title of the third column of the table by the following: "Applicable".

6.2.4.2 At the end of the table add the following new rows:

(1)	(2)	(3)
EN 15888:2011	Transportable gas cylinders - Cylinder bundles - Periodic inspection and testing	Mandatorily from 1 January 2015
EN 1440:2008 +A1:2012 (except Annexes G and H)	LPG equipment and accessories – Periodic inspection of transportable refillable LPG cylinders	Mandatorily from 1 January 2015

6.2.6.4 In the second indent, replace "EN 417:2003" with "EN 417:2012".

Chapter 6.3

6.3.4.2 (a) In the second sentence, insert a reference to a footnote 1 after "or 6.7.". The text of the footnote reads as follows:

"¹ This symbol is also used to certify that flexible bulk containers authorized for others modes of transport complies with the requirements in Chapter 6.8 of the UN Model Regulations."

As a consequence, renumber footnote 1 of Chapter 6.3 as footnote 2.

Chapter 6.4

6.4.9.1 and 6.4.23.5 a) Insert "6.4.8.4," after "6.4.7.5,"

Chapter 6.5

6.5.1.1.3 Add a new NOTE to read as follows:

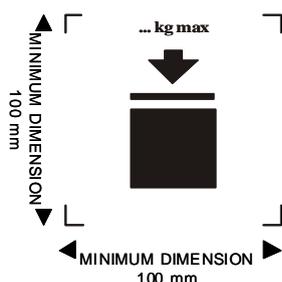
"NOTE: *Parties performing inspections and tests in other countries, after the IBC has been put into service, need not be accepted by the competent authority of the country in which the IBC has been approved, but the inspections and tests have to be performed according to the rules specified in the IBC's approval.*"

6.5.2.1.1 (a) In the second sentence, insert a reference to a footnote 1 after "or 6.7.". The text of the footnote reads as follows:

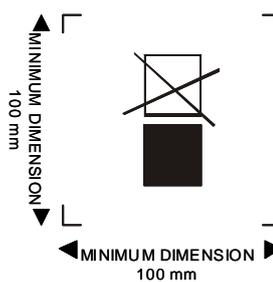
"¹ This symbol is also used to certify that flexible bulk containers authorized for others modes of transport complies with the requirements in Chapter 6.8 of the UN Model Regulations."

As a consequence, renumber footnote 1 of Chapter 6.5 as footnote 2.

6.5.2.2.2 Amend the symbols to read as follows:



IBC capable of being stacked



IBC NOT capable of being stacked

6.5.6.2.1 Replace "6.5.6.5" with "6.5.6.4".

6.5.6.3.5 In the first paragraph, replace "4.1.1.19" with "4.1.1.21".

6.5.6.3.6 In the last sentence, replace "4.1.1.19.2" with "4.1.1.21.2".

Chapter 6.6

6.6.3.1 In the first paragraph, replace "durable and legible markings showing:" with "markings which are durable, legible and placed in a location so as to be readily visible. Letters, numerals and symbols shall be at least 12 mm high and shall show:".

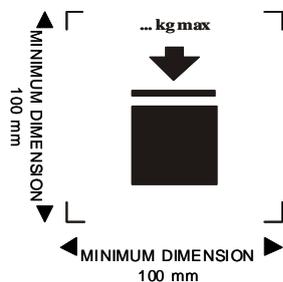
6.6.3.1 (a) In the second sentence, insert a reference to a footnote 1 after "or 6.7.". The text of the footnote reads as follows:

"¹ This symbol is also used to certify that flexible bulk containers authorized for others modes of transport complies with the requirements in Chapter 6.8 of the UN Model Regulations."

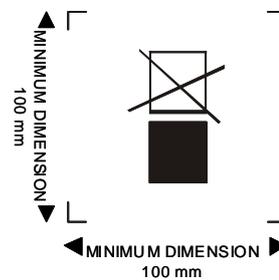
As a consequence, renumber footnote 1 of Chapter 6.6 as footnote 2.

Add a new 6.6.3.3 to read as follows:

"6.6.3.3 The maximum permitted stacking load applicable when the large packaging is in use shall be displayed on a symbol as follows:



Large packaging capable of being stacked



Large packaging NOT capable of being stacked

The symbol shall be not less than 100 mm × 100 mm, be durable and clearly visible. The letters and numbers indicating the mass shall be at least 12 mm high.

The mass marked above the symbol shall not exceed the load imposed during the design type test (see 6.6.5.3.3.4) divided by 1.8."

Chapter 6.7

6.7.2.13.1 After sub-paragraph (e), add the following new sub-paragraph (f):

"(f) The cross sectional flow areas of the spring loaded pressure-relief devices, frangible discs and fusible elements in mm²."

Renumber existing sub-paragraph (f) as sub-paragraph (g).

6.7.2.13.2, 6.7.3.9.2, 6.7.4.8.2 and 6.7.5.6.2 Replace "ISO 4126-1:1991" with "ISO 4126-1:2004 and ISO 4126-7:2004".

6.7.2.20.1 (c) (i), 6.7.3.16.1 (c) (i), 6.7.4.15.1 (c) (i) and 6.7.5.13.1 (c) (i) In the second sentence, insert a reference to a footnote 2 after "or 6.7.". The text of the footnote reads as follows:

"² This symbol is also used to certify that flexible bulk containers authorized for others modes of transport complies with the requirements in Chapter 6.8 of the UN Model Regulations."

As a consequence, renumber footnotes 2 to 6 of Chapter 6.7 as footnotes 3 to 7.

6.7.3 After the heading, insert the following new Note:

"NOTE: *These requirements also apply to portable tanks intended for the carriage of chemicals under pressure (UN Nos. 3500, 3501, 3502, 3503, 3504 and 3505).*"

6.7.3.1 In the definition of "*Design reference temperature*", in the second sentence, insert "or liquefied gas propellants of chemicals under pressure" after "non-refrigerated liquefied gas".

6.7.3.1 In sub-paragraph (b) of the definition of "*Maximum allowable working pressure*", add a new sub-paragraph (iii) to read as follows:

"(iii) for chemicals under pressure, the MAWP (in bar) given in T50 portable tank instruction for the liquefied gas portion of the propellants listed in T50 in 4.2.5.2.6;"

6.7.3.5.4 In the first sentence, insert "or chemicals under pressure" after "non-refrigerated liquefied gases".

6.7.3.9.1 and 6.7.4.8.1 After sub-paragraph (d), add the following new sub-paragraph (e):

"(e) The cross sectional flow areas of the spring loaded pressure-relief devices and frangible discs in mm²."

Renumber existing sub-paragraph (e) as sub-paragraph (f).

6.7.5.6.1 After sub-paragraph (c), add the following new sub-paragraph (d):

"(d) The cross sectional flow areas of the spring loaded pressure-relief devices and frangible discs in mm²."

Chapter 6.8

6.8.2.1.19 In the table, replace "Stainless austenitic steels" with "Austenitic stainless steels" and insert a new second row to read as follows:

Austenitic-ferritic stainless steels	3 mm	3.5 mm
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6.8.2.1.20 In the left-hand column, at the beginning, insert a reference to footnote 5 after "or equivalent". The text of the footnote reads as follows:

"⁵ Equivalent measures means measures given in standards referenced in 6.8.2.6."

As a consequence, renumber footnotes 5 to 15 of Chapter 6.8 as footnotes 6 to 16.

6.8.2.2.3 Second paragraph Replace "venting systems" with "breather devices" and replace "shall prevent the immediate passage of flame into the tank by means of a suitable device to prevent the propagation of a flame" with "shall prevent the immediate passage of flame into the shell by means of a suitable protective device".

6.8.2.2.3 Third paragraph Replace "If the protection consists of" with "If the protective device consists of". The two other amendments do not apply to the English text.

6.8.2.2.6 Replace "venting system" with "breather device".

6.8.2.3.1 The amendment does not apply to the English text.

Add a new 6.8.2.3.4 to read as follows:

"6.8.2.3.4 In the case of a modification of a tank with a valid, expired or withdrawn type approval, the testing, inspection and approval are limited to the parts of the tank that

have been modified. The modification shall meet the provisions of ADR applicable at the time of the modification. For all parts of the tank not affected by the modification, the documentation of the initial type approval remains valid.

A modification may apply to one or more tanks covered by a type approval.

A certificate approving the modification shall be issued by the competent authority of any Contracting Party to ADR or by a body designated by this authority and shall be kept as part of the tank record.

Each application for an approval certificate for a modification shall be lodged with a single competent authority or body designated by this authority."

6.8.2.4.3 In the last but one paragraph, replace "venting systems" with "breather devices".

Amend 6.8.2.5.2 to read as follows:

<p>6.8.2.5.2 The following particulars shall be inscribed on the tank-vehicle (on the tank itself or on plates)¹³:</p> <ul style="list-style-type: none"> - name of owner or operator; - unladen mass of the tank-vehicle; and - maximum permissible mass of the tank-vehicle. <p>The following particulars shall be inscribed on a demountable tank (on the tank itself or on plates)¹³:</p> <ul style="list-style-type: none"> - name of owner or operator; - "demountable tank"; - tare of the tank; - maximum permissible gross mass of the tank. - for the substances according to 4.3.4.1.3, the proper shipping name of the substance(s) accepted for carriage; - tank code according to 4.3.4.1.1; and - for substances other than those according to 4.3.4.1.3, the alphanumeric codes of all special provisions TC and TE which are shown in column (13) of Table A of Chapter 3.2 for the substances to be carried in the tank. 	<p>The following particulars shall be inscribed on the tank-container (on the tank itself or on plates)¹³:</p> <ul style="list-style-type: none"> - names of owner and of operator; - capacity of the shell; - tare; - maximum permissible gross mass; - for the substances according to 4.3.4.1.3, the proper shipping name of the substance(s) accepted for carriage; - tank code according to 4.3.4.1.1; and - for substances other than those according to 4.3.4.1.3, the alphanumeric codes of all special provisions TC and TE which are shown in column (13) of Table A of Chapter 3.2 for the substances to be carried in the tank.
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¹³ Add the units of measurement after the numerical values.

6.8.2.6.1 In the table, under "For tanks for gases of Class 2":

In the row for standard "EN 12493:2008 (except Annex C)" amend the text in column (4) to read "Between 1 January 2010 and 30 June 2013" and insert "31 December 2014" in column (5).

After the row for standard "EN 12493:2008 (except Annex C)" insert the following new row:

EN 12493:2008+ A1:2012 (except Annex C)	LPG equipment and accessories – Welded steel tanks for liquefied petroleum gas (LPG) – Road tankers – Design and manufacture <i>NOTE: Road tankers is to be understood in the meaning of "fixed tanks" and "demountable tanks" as per ADR.</i>	1.2.1, 6.8.1 6.8.2.1 (with the exception of 6.8.2.1.17), 6.8.2.5, 6.8.3.1, 6.8.3.5, 6.8.5.1 to 6.8.5.3	Until 31 December 2013	31 December 2015
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6.8.2.6.1 In the table, under "For tanks intended for the carriage of liquid petroleum products and other dangerous substances of Class 3 which have a vapour pressure not exceeding 110 kPa at 50 °C and petrol, and which have no toxic or corrosive subsidiary hazard":

In the row for standard "EN 13082:2001" amend the text in column (4) to read "Between 1 January 2005 and 30 June 2013" and insert "31 December 2014" in column (5).

After the row for standard "EN 13082:2001" insert the following new row:

EN 13082:2008 +A1:2011	Tanks for transport of dangerous goods – Service equipment for tanks – Vapour transfer valve	6.8.2.2 and 6.8.2.4.1	Until further notice	
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6.8.3.4.6 Amend to read as follows:

"6.8.3.4.6 By derogation from the requirements of 6.8.2.4.2, the periodic inspections shall take place:

at least after six years

at least after eight years

of service and thereafter at least every 12 years in the case of tanks intended for the carriage of refrigerated liquefied gases.

The intermediate inspections according to 6.8.2.4.3 shall be carried out at least six years after each periodic inspection.

A leakproofness test or an intermediate inspection according to 6.8.2.4.3 may be performed, at the request of the competent authority, between any two successive periodic inspections."

6.8.3.5.6 Amend the introductory sentence to read as follows:

"In addition to the particulars prescribed in 6.8.2.5.2, the following shall be inscribed on the tank-vehicle (on the tank itself or on plates)¹³:"

"In addition to the particulars prescribed in 6.8.2.5.2, the following shall be inscribed on the tank-container (on the tank itself or on plates)¹³:"

6.8.4 (c) Add a new special provision TA5 to read as follows:

"**TA5** This substance may be carried only in tanks with the tank code S2.65AN(+); the hierarchy in 4.3.4.1.2 is not applicable."

6.8.4 (d) **TT8** At the end, add the following new paragraph:

"Such magnetic particle inspections shall be carried out by a competent person qualified for this method according to EN 473 (Non-destructive testing – Qualification and certification of NDT personnel – General principles).".

6.8.4 (d) Add a new special provision TT10 to read as follows:

"TT10 The periodic inspections according to 6.8.2.4.2 shall take place:

at least every three years. | at least every two and a half years. "

Chapter 6.9

6.9.2.3.3 The amendment does not apply to the English text.

Chapter 6.11

6.11.3 In the heading, insert "BK1 or BK2" before "bulk containers".

6.11.4 In the heading, insert "BK1 and BK2" before "bulk containers".

Chapter 6.12

6.12.3.1.2 Amend to read as follows:

"6.12.3.1.2 For UN Nos. 1942 and 3375, the tank shall meet the requirements of Chapters 4.3 and 6.8 concerning breather devices and, in addition, shall have bursting discs or other suitable means of emergency pressure relief, approved by the competent authority of the country of use.".

6.12.3.2.2 Amend the second sentence to read as follows: "For UN Nos. 1942 and 3375, the tank shall meet the requirements of Chapters 4.3 and 6.8 concerning breather devices and, in addition, shall have bursting discs or other suitable means of emergency pressure relief, approved by the competent authority of the country of use.".

6.12.4.4 Replace "venting systems" with "breather devices".

Part 7

Chapter 7.3

7.3.2.4 After "bulk containers", insert "(code BK2)". At the end, replace "watertight" with "waterproof".

7.3.3 In special provision VV15, amend the first paragraph to read as follows:

"Carriage in bulk is permitted in closed or sheeted vehicles, closed containers or sheeted large containers with complete walls for solids (substances or mixtures, such as preparations or wastes) containing on an average not more than 1 000 mg/kg of substance to which this UN No is assigned. At no point of the load shall the concentration of this substance or these substances be higher than 10 000 mg/kg.".

Chapter 7.4

7.4.1 In the second sentence, replace "Chapters 4.2 or 4.3" with "Chapters 4.2, 4.3, 4.4 or 4.5 as applicable".

Chapter 7.5

7.5.1.2, 7.5.1.3 At the beginning, insert "Unless otherwise specified in ADR,".

7.5.1.3 Transfer the last sentence of 7.5.1.3 to the end of 7.5.1.2.

7.5.1.5 Insert "and overpacks" after "packages".

7.5.2 Add a new 7.5.2.4 to read as follows:

"7.5.2.4 Mixed loading of dangerous goods packed in limited quantities with any type of explosive substances and articles, except those of Division 1.4 and UN Nos. 0161 and 0499, is prohibited."

7.5.7.1 Add, at the end of 7.5.7.1, the following sentence: "The requirements of this paragraph are deemed to be complied with when the cargo is secured in accordance with standard EN 12195-1:2010."

7.5.7.4 After "containers", add ", tank-containers, portable tanks and MEGCs".

Part 8

Chapter 8.1

8.1.4.1 Amend to read as follows:

"8.1.4.1 The following table shows the minimum provisions for portable fire extinguishers for the inflammability Classes¹ A, B and C that apply to transport units carrying dangerous goods except for those referred to in 8.1.4.2:

(1) Transport unit maximum permissible mass	(2) Minimum number of fire extinguishers	(3) Minimum total capacity per transport unit	(4) Extinguisher suitable for engine or cab fire. At least one with a minimum capacity of:	(5) Additional extinguisher(s) requirement. At least one extinguisher shall have a minimum capacity of:
≤ 3.5 tonnes	2	4 kg	2 kg	2 kg
> 3.5 tonnes ≤ 7.5 tonnes	2	8 kg	2 kg	6 kg
> 7.5 tonnes	2	12 kg	2 kg	6 kg

The capacities are for dry powder devices (or an equivalent capacity for any other suitable extinguishing agent)."

¹ For the definition of the inflammability classes, see Standard EN 2:1992 Classification of fires.

Chapter 8.2

8.2.1.4 In the first parenthesis, delete "additional requirement" and in the third parenthesis, delete "special provisions".

Chapter 8.5

S1 In the heading of the requirement, delete "Additional". In paragraph (1), delete subparagraphs (a) and (b). In subparagraph (c), replace "referred to in (b)" with "defined in 8.2.2.3.4", add "training" before "course" and delete the numbering of the subparagraph ("(c)").

Amend additional requirement S3 to read as follows:

"S3: Special provisions concerning the carriage of infectious substances

For transport units carrying dangerous substances of Class 6.2, only the requirements in column (4) of the table in 8.1.4.1 shall apply. The requirements in 8.3.4 shall not apply."

S11 Delete paragraphs (1) and (2). In paragraph (3), replace "referred to in (2)" with "defined in 8.2.2.3.5", add "training" before "course" and delete the numbering of the subparagraph ("(3)").

S12 In the first sentence, replace "special provision S11" with "the requirement in 8.2.1.4 concerning specialization training course for drivers of vehicles carrying radioactive material".

Chapter 8.6

8.6.3.3 At the end, insert:

", except if the transport unit is required to be marked in accordance with 3.4.13 subject to 3.4.14¹".

8.6.4 Amend the first sentence to read as follows:

"The restrictions for passage through tunnels shall apply:

- to transport units for which marking is required by 3.4.13 subject to 3.4.14¹, through tunnels of category E; and
- to transport units for which an orange-coloured plate marking is required according to 5.3.2, in accordance with the table below once the tunnel restriction code to be assigned to the whole load of the transport unit has been determined."

Renumber the NOTE as NOTE 1 and add a new NOTE 2 to read as follows:

NOTE 2: *Dangerous goods packed in limited quantities carried in containers or transport units marked in accordance with the IMDG Code are not subject to the restrictions for passage through tunnels of category E when the total gross mass of the packages containing dangerous goods packed in limited quantities does not exceed 8 tonnes per transport unit.*"

¹ or in accordance with 3.4.10 subject to 3.4.11 of ADR as applicable until 31 December 2010 if the transitional measures of 1.6.1.20 are applied.

Chapter 9.1

9.1.1.2 In the definition of "AT vehicle", paragraph (a), amend the beginning to read: "A vehicle, other than EX/III, FL or OX vehicle or than a MEMU, intended..." (remainder unchanged). In the definition of "ADR approval", add the following at the end: "or as a MEMU".

Chapter 9.2

9.2.2.6.3 Amend to read as follows:

"9.2.2.6.3 Electrical connections

Electrical connections between motor vehicles and trailers shall have a protection degree IP54 in accordance with IEC 60529 and be designed to prevent accidental disconnection. Connectors shall be in conformity with ISO 12098:2004⁴, ISO 7638:2003⁴ and EN 15207:2006 as appropriate."

⁴ ISO 4009, referred to in this standard, need not be applied.