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Economic Commission for Europe**Inland Transport Committee****Working Party on the Transport of Dangerous Goods****Joint Meeting of the RID Committee of Experts and the
Working Party on the Transport of Dangerous Goods****Report of the Joint Meeting of the RID Committee of Experts
and the Working Party on the Transport of Dangerous
Goods on its autumn 2013 session¹**

held in Geneva from 17–27 September 2013

Addendum²

Annex II**Texts adopted by the Joint Meeting (Draft amendments to RID, ADR
and ADN for entry into force on 1 January 2015)****A. Document ECE/TRANS/WP.15/AC.1/2013/31/Add.1**

The draft amendments listed in ECE/TRANS/WP.15/AC.1/2013/31/Add.1 have been adopted with the following modifications:

Chapter 1.1

1.1.3.10 (a) At the end, add a note to read as follows:

¹ Circulated by the Intergovernmental Organization for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2013-B. Unless otherwise indicated, the other documents referred to in this report under the symbol ECE/TRANS/WP.15/AC.1/ followed by the year and a serial number were circulated by OTIF under the symbol OTIF/RID/RC/ followed by the year and the same serial number.

² Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2013-B/Add.2.

“NOTE: This includes also lamps brought by individuals to a first collection point, and then carried to another collection point, intermediate processing or recycling facility.”.

(Reference document: informal document INF.47 as amended)

1.1.3.10 (b) (i) Amend to read as follows:

“(i) the lamps are manufactured according to a certified quality management system;”

1.1.3.10 (d) Replace “bulb” by “lamp”.

Chapter 1.2

1.2.1 Definition of “*Radiation detection system*”: (The modification does not apply to the English text of the proposed amendment).

Chapter 1.6

1.6.6.2.1 (a) (The modification does not apply to the English text of the proposed amendment).

Chapter 1.7

1.7.1.4 (The modification does not apply to the English text of the proposed amendment).

1.7.1.5.1 In the first sentence, replace “articles and empty packagings” by “articles or empty packagings”.

1.7.1.5.1 (a) Delete the square brackets.

1.7.2.2 Delete the square brackets. Delete the second amendment (“and replace “doses to individuals be subject” with “doses to individuals are subject”).

1.7.6.1 Delete the square brackets.

1.7.6.1 (a), in the introductory sentence: Delete the comma after “carriage” and at the end, add “by”.

Chapter 2.2

2.2.3.1.4, option 1 adopted with the following modifications:

In the first paragraph, after “sub-section 32.3” insert “[except sub-paragraph 32.3.1.7 (d)]”.

In the first paragraph, replace “may be placed in” by “may be assigned to”

In (c), replace “Division 6.1” by “Class 6.1”.

Insert a paragraph break before the Note.

2.2.3.1.4, option 2 Delete.

2.2.3.1.5, option 2 Delete.

2.2.7.2.1.1 Replace “2.2.7.2.4.2 to” by “2.2.7.2.4 and”.

2.2.7.2.3.2 Delete both amendments.

2.2.7.2.3.3.6 (a) (ii) Insert “equal to or” after “material is”.

2.2.7.2.4.5.2 (a) (b) (c) (The modification does not apply to the English text of the proposed amendment).

2.2.8.1.2 and 2.2.8.3 Delete the amendments.

2.2.9.3, M11 Amend the proposed entry for UN No. 3509 to read as follows:

“3509 PACKAGINGS, DISCARDED, EMPTY, UNCLEANED”.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/45 as amended)

Chapter 3.2, Table A, new entries

For UN No. 3507 In column (3b), delete “[CR]”. In column 19, delete “S13”.

Modify the entry for UN No. 3509 to read as follows:

(1)	(2)	(3a)	(3b)	(4)	(5)	(6)	(7a)	(7b)	(8)
3509	PACKAGINGS, DISCARDED, EMPTY, UNCLEANED	9	M11		9	663	0	E0	P003 IBC08 LP02

(9a)	(9b)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
RR9		BK2					4	VC2				90
BB3							(E)	AP10				
LL1												

(Reference document: ECE/TRANS/WP.15/AC.1/2013/45 as amended)

Chapter 3.3

SP225 After the first sentence, insert the following new NOTE:

“**NOTE:** “Provisions applied in the country of manufacture” means the provisions applicable in the country of manufacture or those applicable in the country of use.”.

SP371 (1) (g) (The modification does not apply to the English text of the proposed amendment)

In the new special provisions, delete special provision 374 and insert

“374 (Reserved)”.

(Reference document: ECE/TRANS/WP.15/AC.1/2013/45, consequential amendment)

Chapter 3.4

3.4.7.1 and 3.4.8.1 (The modifications do not apply to the English text of the proposed amendments).

(Reference documents: informal documents INF.14 and INF.38)

Chapter 3.5

3.5.4.3 Delete the amendment.

Chapter 4.1

4.1.4.1, P208 (7) Insert “material” after “adsorbent”.

4.1.4.1, P208 (12) (The modification does not apply to the English text of the proposed amendment).

(Reference document: informal document INF.14 as amended)

4.1.4.1, P208 (13) (r) (The modification does not apply to the English text of the proposed amendment).

(Reference document: informal document INF.14)

4.1.4.1, P501, P502 et P504 Under “Composite packagings”, amend the last entry to read as follows:

“Glass receptacle with steel, aluminium, fibre or plywood outer drum (6PA1, 6PB1, 6PG1 or 6PD1) or with steel, aluminium, wood or fibreboard outer box or with outer wickerwork hamper (6PA2, 6PB2, 6PC, 6PG2 or 6PD2) or with solid or expanded plastics outer packaging (6PH1 or 6PH2).”.

4.1.4.1, P505: (The modification does not apply to the English text of the proposed amendment).

4.1.4.1, P802 (3) Amend to read as follows:

“(3) Composite packagings: Glass receptacle with outer steel, aluminium or plywood drum (6PA1, 6PB1 or 6PD1) or with outer steel, aluminium or wood box or with outer wickerwork hamper (6PA2, 6PB2, 6PC or 6PD2) or with outer solid plastics packaging (6PH2); maximum capacity: 60 litres.”.

4.1.4.1, P908 In the introductory sentence, insert “damaged or defective lithium ion cells and batteries and damaged or defective lithium metal cells and batteries, including those contained in equipment, of” after “applies to”.

Amend the second sentence to read as follows: “The following packagings are authorized provided the general provisions of 4.1.1 and 4.1.3 are met.”.

In paragraph 1, amend the beginning of the first sentence to read as follows: “Each damaged or defective cell or battery or equipment containing such cells or batteries ...”. Remainder of the sentence unchanged.

Last sentence before “Additional requirements”: (The modification does not apply to the English text of the proposed amendment).

4.1.4.3, LP904 Amend the introductory sentence to read as follows: “This instruction applies to single damaged or defective batteries of UN Nos. 3090, 3091, 3480 and 3481, including those contained in equipment.”.

In paragraph 1, amend the beginning of the first sentence to read as follows: “Each damaged or defective battery or equipment containing such a battery...”. Remainder of the sentence unchanged.

(Reference document: informal document INF.14)

Chapter 5.2

5.2.1.7.5 Replace “on the outside of the packaging with the following information:” by “on the outside of the package with the following information:”.

(Reference document: informal document INF.14)

Chapter 6.4

6.4.22.7 The amendment after new paragraph 6.4.22.7 should read as follows: “Renumber existing 6.4.22.6 as 6.4.22.8 and existing 6.4.22.7 as 6.4.22.9.”.

6.4.23.2 (c) Replace “5.1.5.2.1 (a) (iii)” by “5.1.5.2.1 (a) (v)”.

(Reference document: informal document INF.14)

Chapter 7.5

7.5.11 CW33/CV33 (4.3) (The modifications in the introductory sentence and in paragraph (b) do not apply to the English text of the proposed amendment).

(Reference document: informal document INF.14)

B. Document ECE/TRANS/WP.15/AC.1/130, annex II

In the amendment for 1.1.3.6.3, replace “For compressed gases, the nominal capacity of the receptacle (see definition in 1.2.1) in litres.” by “For compressed gases and chemicals under pressure, the water capacity of the receptacle in litres.”.

(Reference document: ECE/TRANS/WP.15/AC.1/2013/35, as amended)

Replace the amendment for the definition of "nominal capacity of the receptacle" in 1.2.1 by the following:

1.2.1 Delete the definition of “Nominal capacity of the receptacle”.

(Reference document: ECE/TRANS/WP.15/AC.1/2013/35)

Delete all the square brackets in Part 3 and Part 5

(Reference document: informal document INF.17)

C. Other draft amendments

Chapter 1.1

1.1.3.6.2 In the sixth indent, insert “S5,” after “S4,”.

(Reference document: ECE/TRANS/WP.15/AC.1/2013/34)

1.1.3.6.5 Insert “1.1.3.1 (a), (b) and (d) to (f),” before “1.1.3.2”. After “1.1.3.5” insert “1.1.3.7, (RID 1.1.3.8) and 1.1.3.9”.

(Reference document: ECE/TRANS/WP.15/AC.1/2013/60, as amended)

Chapter 1.2

1.2.1 In the definition of “Approval”, replace “6.4.22.6” by “6.4.22.8”.

(ADR) 1.2.1 In the definition of “Service equipment”, amend the end of sub-paragraph (a) to read as follows:

“...heating, heat insulating and additive devices and measuring instruments;”.

(Reference documents: informal document INF.60/Rev.1 and ECE/TRANS/WP.15/AC.1/2013/39)

1.2.1 In the definition of “Small receptacle containing gas (gas cartridge)”, replace “meeting the relevant requirements of 6.2.6” by “having a water capacity not exceeding 1000 ml for receptacles made of metal and not exceeding 500 ml for receptacles made of synthetic material or glass,”.

(Reference document: informal document INF.51)

Chapter 1.6

Add the following new transitional measures:

“1.6.1.33 Electric double layer capacitors of UN No. 3499, manufactured before 1 January 2014, need not be marked with the energy storage capacity in Wh as required by sub-paragraph (e) of special provision 361 of Chapter 3.3.”

“1.6.1.34 Asymmetric capacitors of UN No. 3508, manufactured before 1 January 2016, need not be marked with the energy storage capacity in Wh as required by sub-paragraph (c) of special provision 372 of Chapter 3.3.”

“1.6.2.14 Cylinders constructed before 1 January 2016 in accordance with 6.2.3 and a specification approved by the competent authorities of the countries of transport and use, but not in accordance with ISO 11513:2011 or ISO 9809-1:2010 as required in 4.1.4.1, packing instruction P208 (1), may be used for the carriage of adsorbed gases provided the general packing requirements of 4.1.6.1 are met.”

(Reference document: informal document INF.57 as amended)

(ADR)

1.6.3.44 Add the following new transitional provision:

“1.6.3.44 Fixed tanks (tank-vehicles) and demountable tanks intended for the carriage of UN Nos. 1202, 1203, 1223, 3475 and aviation fuel classified under UN Nos. 1268 or 1863, equipped with additive devices designed and constructed before 1 July 2015 in accordance with the provisions of national law, but which do not, however, conform to the construction and approval requirements of special provision 664 of Chapter 3.3 applicable as from 1 January 2015, may continue to be used [with the approval of the competent authorities in the countries of use].”

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/39 and informal document INF.60/Rev.1)

Chapter 2.1

2.1.5 Add a new paragraph to read as follows:

“2.1.5 Classification of packagings, discarded, empty, uncleaned

Empty uncleaned packagings, large packagings or IBCs, or parts thereof, carried for disposal, recycling or recovery of their material, other than reconditioning, repair, routine maintenance, remanufacturing or reuse, may be assigned to UN 3509 if they meet the requirements for this entry.”

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/45)

Chapter 2.2

2.2.3.1.1 Amend NOTE 3 to read as follows:

“**NOTE 3:** *Flammable liquids which are highly toxic by inhalation, as defined in 2.2.61.1.4 to 2.2.61.1.9, and toxic substances having a flash-point of 23 °C or above are substances of Class 6.1 (see 2.2.61.1). Liquids which are highly toxic by inhalation are indicated as “toxic by inhalation” in their proper shipping name in Column (2) or by special provision 354 in Column (6) of Table A of Chapter 3.2.*”

2.2.61.3 Amend the text of footnote (j) at the end, to read as follows:

“(j) Highly toxic and toxic flammable liquids having a flash-point below 23 °C are substances of Class 3 except those which are highly toxic by inhalation, as defined in 2.2.61.1.4 to 2.2.61.1.9. Liquids which are highly toxic by inhalation are indicated as “toxic by inhalation” in their proper shipping name in Column (2) or by special provision 354 in Column (6) of Table A of Chapter 3.2.”

(Reference document: ECE/TRANS/WP.15/AC.1/2013/33 as amended)

2.2.9.2 After “230” add “, 310”

(Reference document: ECE/TRANS/WP.15/AC.1/2013/54, as amended)

Chapter 3.2, Table A

For UN Nos. 1001, 1002, 1009, 1010, 1011, 1012, 1013, 1018, 1020, 1021, 1022, 1027, 1028, 1029, 1030, 1032, 1033, 1035, 1036, 1037, 1039, 1041, 1046, 1049, 1055, 1056, 1058, 1060, 1061, 1063, 1065, 1066, 1070, 1072, 1075, 1077, 1078, 1080, 1081, 1083, 1085, 1086, 1087, 1858, 1860, 1912, 1952, 1954, 1956, 1957, 1958, 1959, 1962, 1964, 1965, 1968, 1969, 1971, 1973, 1974, 1976, 1978, 1982, 1983, 1984, 2034, 2035, 2036, 2044, 2193, 2200, 2203, 2419, 2422, 2424, 2451, 2452, 2453, 2454, 2455, 2517, 2599, 2601, 2602, 3070, 3153, 3154, 3156, 3157, 3159, 3161, 3163, 3220, 3252, 3296, 3297, 3298, 3299, 3337, 3338, 3339, 3340, 3354, 3374 and 3468, in column (6) add “662”.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/53 and informal document INF.52 as amended)

(ADR)

For UN Nos. 1202 (all entries), 1203, 1223, 1268, 1863 and 3475, add "664" in column (6).

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/39 and informal document INF.60/Rev.1)

For UN Nos. 1334, 1350, 1454, 1474, 1486, 1498, 1499, 1942, 2067, 2213, 3077, 3377 and 3378 P III, in column (10) add “BK3”.

(Reference document: informal document INF.10)

For UN No. 2187 In column (6) delete “593”.

(Reference document: ECE/TRANS/WP.15/AC.1/2013/32)

For UN Nos. 2908 to 2913, 2915 to 2917, 2919, 2977, 2978 and 3321 to 3333, in column (19), delete “S13”.

(Reference document: ECE/TRANS/WP.15/AC.1/2013/34)

For UN Nos. 2977 and 2978 In column (6), delete “172”.

(Reference document: Informal document INF.36)

Chapter 3.3

SP225 At the end, add a Note to read as follows:

“**NOTE:** Pressure receptacles which contain gases for use in the above-mentioned fire extinguishers or for use in stationary fire-fighting installations shall meet the requirements of Chapter 6.2 and all requirements applicable to the relevant gas when these pressure receptacles are carried separately.”

(Reference document: informal document INF.25 as amended)

SP582 Amend to read as follows:

“582 This entry covers, *inter alia*, mixtures of gases indicated by the letter R ..., with the following properties:

<i>Mixture</i>	<i>Maximum vapour pressure at 70 °C (MPa)</i>	<i>Minimum density at 50 °C (kg/l)</i>	<i>Permitted technical name for purposes of 5.4.1.1</i>
F1	1.3	1.30	“Mixture F1”
F2	1.9	1.21	“Mixture F2”
F3	3.0	1.09	“Mixture F3”

NOTE 1: Trichlorofluoromethane (refrigerant R 11), 1,1,2-trichloro-1,2,2-trifluoroethane (refrigerant R 113), 1,1,1-trichloro-2,2,2-trifluoroethane (refrigerant R 113a), 1-chloro-1,2,2-trifluoroethane (refrigerant R 133) and 1-chloro-1,1,2-trifluoroethane (refrigerant R 133 b) are not substances of Class 2. They may, however, enter into the composition of mixtures F 1 to F 3.

NOTE 2: The reference densities correspond to the densities of dichlorofluoromethane (1.30 kg/l), dichlorodifluoromethane (1.21 kg/l) and chlorodifluoromethane (1.09 kg/l).”.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/49 and informal document INF.58, as amended)

SP583 Amend to read as follows:

“583 This entry covers, *inter alia*, mixtures of gases indicated by the letter R ..., with the following properties:

<i>Mixture</i>	<i>Maximum vapour pressure at 70 °C (MPa)</i>	<i>Minimum density at 50 °C (kg/l)</i>	<i>Permitted technical name^(a) for purposes of 5.4.1.1</i>
A	1.1	0.525	“Mixture A” or “Butane”
A01	1.6	0.516	“Mixture A01” or “Butane”
A02	1.6	0.505	“Mixture A02” or “Butane”
A0	1.6	0.495	“Mixture A0” or “Butane”
A1	2.1	0.485	“Mixture A1”
B1	2.6	0.474	“Mixture B1”
B2	2.6	0.463	“Mixture B2”
B	2.6	0.450	“Mixture B”
C	3.1	0.440	“Mixture C” or “Propane”

^(a) For carriage in tanks, the trade names “Butane” or “Propane” may be used only as a complement.”

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/49 and informal document INF.58)

SP594 Replace “according to the Regulations of the manufacturing State” by “according to the provisions applied in the country of manufacture”. At the end, insert the following new NOTE:

“NOTE: “Provisions applied in the country of manufacture” means the provisions applicable in the country of manufacture or those applicable in the country of use.”.

SP636 (b) Amend to read as follows:

“(b) Up to the intermediate processing facility, lithium cells and batteries with a gross mass of not more than 500 g each or lithium ion cells with a Watt-hour rating of not more than 20 Wh, lithium ion batteries with a Watt-hour rating of not more than 100 Wh, lithium metal cells with a lithium content of not more than 1 g and lithium metal batteries with an aggregate lithium content of not more than 2 g, whether or not contained in equipment, collected and handed over for carriage for disposal or recycling, together with or without other non-lithium cells or batteries, are not subject to the other provisions of RID/ADR/ADN including special provision 376 and paragraph 2.2.9.1.7, if they meet the following conditions:

(i) The provisions of packing instruction P909 of 4.1.4.1 (ADN: of ADR) apply except for the additional requirements 1 and 2;

(ii) A quality assurance system is in place to ensure that the total amount of lithium cells or batteries per wagon or large container/transport unit does not exceed 333 kg;

NOTE: *The total quantity of lithium cells and batteries in the mix may be assessed by means of a statistical method included in the quality assurance system. A copy of the quality assurance records shall be made available to the competent authority upon request.*

(iii) Packages are marked “LITHIUM BATTERIES FOR DISPOSAL” or “LITHIUM BATTERIES FOR RECYCLING” as appropriate.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/50 and informal document INF.48/Rev.1 as amended)

SP660 (g) (v) Replace “nominal capacity” by “water capacity”.

(Reference document: ECE/TRANS/WP.15/AC.1/2013/35)

3.3 Add the following new special provisions:

“662 Cylinders not conforming to the provisions of Chapter 6.2 which are used exclusively on board a ship or aircraft, may be carried for the purpose of filling or inspection and subsequent return, provided that all the other relevant requirements of RID/ADR/ADN and other conditions are met including:

(a) The cylinders have been designed and constructed in accordance with a standard recognized by the competent authority of the country of approval;

(b) The cylinders are carried with valve protection in conformity with 4.1.6.8 (ADN: of ADR);

(c) The cylinders are marked and labelled in conformity with 5.2.1 and 5.2.2;

(d) All the relevant filling requirements of packing instruction P200 of 4.1.4.1 (ADN: of ADR) are complied with; and

(e) The transport document includes the following statement: “Carriage in accordance with special provision 662”.”.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/53 and informal document INF.52 as amended)

“663 This entry may only be used for packagings, large packagings or IBCs, or parts thereof, which have contained dangerous goods which are carried for disposal, recycling or recovery of their material, other than reconditioning, repair, routine maintenance, remanufacturing or reuse, and which have been emptied to the extent that only residues of dangerous goods adhering to the packaging parts are present when they are handed over for carriage.

Scope:

Residues present in the packagings, discarded, empty, uncleaned shall only be of dangerous goods of classes 3, 4.1, 5.1, 6.1, 8 or 9. In addition, they shall not be:

- Substances assigned to packing group I or that have "0" assigned in Column (7a) of Table A of Chapter 3.2; nor
- Substances classified as desensitized explosive substances of Class 3 or Class 4.1; nor
- Substances classified as self-reactive substances of Class 4.1; nor
- Asbestos (UN 2212 and UN 2590), polychlorinated biphenyls (UN 2315 and UN 3432) and polyhalogenated biphenyls or polyhalogenated terphenyls (UN 3151 and UN 3152).

General provisions:

Packagings, discarded, empty, uncleaned with residues presenting a risk or a subsidiary risk of Class 5.1 shall not be packed together with other packagings, discarded, empty, uncleaned, or loaded together with other packagings, discarded, empty, uncleaned in the same bulk container.

Documented sorting procedures shall be implemented on the loading site to ensure compliance with the provisions applicable to this entry.

NOTE: All the other provisions of RID/ADR/ADN apply.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/45 as amended)

(ADR only)

Add a new special provision 664 to read as follows:

"664 When substances under this entry are carried in fixed tanks (tank-vehicles) or demountable tanks, these tanks may be equipped with additive devices.

Additive devices:

- are part of the service equipment for dispensing additives of UN 1202, UN 1993 packing group III, UN 3082 or non-dangerous substances during discharge of the tank;
- consist of elements such as connecting pipes and hoses, closing devices, pumps and dosing devices which are permanently connected to the emptying device of the tank's service equipment;
- include means of containment which are an integral part of the shell, or permanently fixed to the exterior of the tank or tank-vehicle.

Alternatively, additive devices may have connectors for connecting packagings. In this latter case, the packaging itself is not considered part of the additive device.

The following requirements shall apply depending on the configuration:

- (a) Construction of the means of containment:
 - (i) As an integral part of the shell (e.g. a tank compartment), they shall meet the relevant provisions of Chapter 6.8.
 - (ii) When permanently fixed to the exterior of the tank or to the tank-vehicle, they are not subject to the construction provisions of ADR provided they comply with the following provisions:

They shall be made of a metallic material and comply with the following minimum wall thickness requirements:

<i>Material</i>	<i>Minimum wall thickness*</i>
Austenitic stainless steels	2.5 mm
Other steels	3 mm
Aluminium alloys	4 mm
Pure aluminium of 99.80%	6 mm

** For means of containment made with double walls, the aggregate thickness of the outer metal wall and the inner metal wall shall correspond to the wall thickness prescribed.*

Welding shall be carried out in accordance with 6.8.2.1.23.

- (iii) Packagings which are connectable to the additive device shall be metal packagings and meet the relevant construction requirements of Chapter 6.1, as applicable for the additive concerned.
- (b) Tank approval
- For tanks equipped or intended to be equipped with additive devices, where the additive device is not included in the original type approval of the tank, the provisions of 6.8.2.3.4 shall apply.
- (c) Use of means of containment and additive devices
- (i) In case of (a) (i) above, no additional requirements.
- (ii) In case of (a) (ii) above, the total capacity of the means of containment shall not exceed 400 litres per vehicle.
- (iii) In case of (a) (iii) above, 7.5.7.5 and 8.3.3 shall not apply. The packagings may only be connected to the additive device during discharge of the tank. During carriage, the closures and connectors shall be closed so as to be leaktight.
- (d) Testing for additive devices
- The provisions of 6.8.2.4 shall apply to the additive device. However, in case of (a) (ii) above, at the time of the initial, intermediate or periodic inspection of the tank, the means of containment of the additive device shall only be subject to an external visual inspection and a leakproofness test. The leakproofness test shall be carried out at a test pressure of at least 0.2 bar.
- NOTE:** *For the packagings described in (a) (iii) above, the relevant provisions of ADR shall apply.*
- (e) Transport document
- Only the information required in accordance with 5.4.1.1.1 (a) to (d) needs to be added to the transport document for the additive concerned. The following shall also be entered in the transport document: "Carriage in accordance with special provision 664".
- (f) Training of the vehicle crew
- The additives carried do not require separate training of the vehicle crew in accordance with section 8.2.1.

(g) Placarding or marking

Placarding or marking of the fixed tank (tank-vehicle) or demountable tank for the carriage of substances under this entry in accordance with Chapter 5.3 is not affected by the presence of an additive device or the additives contained therein.”.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/39 and informal document INF.60/Rev.1)

Chapter 4.1

4.1.1.11 At the end, add a new Note to read as follows:

“NOTE: *When such packagings are carried for disposal, recycling or recovery of their material, they may also be carried under UN 3509 provided the conditions of special provision 663 of Chapter 3.3 are met.”.*

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/45 as amended)

(ADN only)

4.1.3 In the first sentence, insert “, bulk containers” after “wagons”

In the first indent, delete “with the exception of BK3 containers”.

4.1.3.1 Amend the definition of “L” to read as follows:

““L” for large packagings or “LL” for special packing provisions specific to RID and ADR;”

(Reference document: ECE/TRANS/WP.15/AC.1/2013/45, consequential amendment)

4.1.4.1, P003 Under “Special packing provision specific to RID and ADR:”, replace “provision” by “provisions” and add a new special packing provision RR9 to read as follows:

“RR9 For UN 3509, packagings are not required to meet the requirements of 4.1.1.3.

Packagings meeting the requirements of 6.1.4, made leak tight or fitted with a leak tight and puncture resistant sealed liner or bag, shall be used.

When the only residues contained are solids which are not liable to become liquid at temperatures likely to be encountered during carriage, flexible packagings may be used. When liquid residues are present, rigid packagings that provide a means of retention (e.g. absorbent material) shall be used.

Before being filled and handed over for carriage, every packaging shall be inspected to ensure that it is free from corrosion, contamination or other damages. Any packaging showing signs of reduced strength, shall no longer be used (minor dents and scratches are not considered as reducing the strength of the packaging).

Packagings intended for the carriage of packagings, discarded, empty, uncleaned with residues of Class 5.1 shall be so constructed or adapted that the goods cannot come into contact with wood or any other combustible material.”.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/45)

4.1.4.1, P200 (10), in “Periodic inspection” after “u” Insert a new “ua” to read as follows:

“ua: The interval between periodic tests may be extended to 15 years for aluminium alloy cylinders and bundles of such cylinders if the provisions of paragraph (13) of this packing instruction are applied. This shall not apply to cylinders made from aluminium alloy AA

6351. For mixtures, this provision “ua” may be applied provided all the individual gases in the mixture have been allocated “ua” in Table 1 or Table 2.”

4.1.4.1, P200 (10), in “Periodic inspection” after “v” Insert a new “va” to read as follows:

“va: For seamless steel cylinders which are equipped with residual pressure valves (RPVs) (see note below) that have been designed and tested in accordance with EN ISO 15996:2005 + A1:2007 and for bundles of seamless steel cylinders equipped with main valve(s) with a residual pressure device, tested in accordance with EN ISO 15996:2005 + A1:2007, the interval between periodic tests may be extended to 15 years if the provisions of paragraph (13) of this packing instruction are applied. For mixtures, this provision “va” may be applied provided all the individual gases in the mixture have been allocated “va” in Table 1 or Table 2.

NOTE: “Residual Pressure Valve” (RPV) means a closure which incorporates a residual pressure device that prevents ingress of contaminants by maintaining a positive differential between the pressure within the cylinder and the valve outlet. In order to prevent back-flow of fluids into the cylinder from a higher pressure source a “Non-Return Valve” (NRV) function shall either be incorporated into the residual pressure device or be a discrete additional device in the cylinder valve, e.g. a regulator.”.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/42 and informal documents INF.53 and INF.55)

4.1.4.1, P200 (11) At the end of the table, insert the following new standard:

(10) p	EN ISO 13088:2012	Gas cylinders - Acetylene cylinder bundles - Filling conditions and filling inspection (ISO 13088:2011)
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(Reference document: informal document INF.49)

4.1.4.1, P200 Add a new paragraph (13) to read as follows:

“(13) An interval of 15 years for the periodic inspection of seamless steel and aluminium alloy cylinders and bundles of such cylinders may be granted in accordance with special packing provisions ua or va of paragraph (10), if the following provisions are applied:

1. General provisions

1.1 For the application of this paragraph, the competent authority shall not delegate its tasks and duties to Xb bodies (inspection bodies of type B) or IS bodies (in-house inspection services).

1.2 The owner of the cylinders or bundles of cylinders shall apply to the competent authority for granting the 15 year interval, and shall demonstrate that the requirements of sub-paragraphs 2, 3 and 4 are met.

1.3 Cylinders manufactured since 1 January 1999 shall have been manufactured in conformity with one of the following standards:

- EN 1964-1 or EN 1964-2; or
- EN 1975; or
- EN ISO 9809-1 or EN ISO 9809-2; or
- [EN ISO 7866]; or

- Annex I, parts 1 to 3 to Council Directive 84/525/EEC^a and 84/526/EEC^a

as applicable at the time of manufacture (see also the table in 6.2.4.1).

Other cylinders manufactured before 1 January 2009 in conformity with RID/ADR in accordance with a technical code accepted by the national competent authority may be accepted for a 15 year interval for periodic inspection, if they are of equivalent safety to the provisions of RID/ADR as applicable at the time of application.

NOTE: This provision is considered to be fulfilled if the cylinder has been reassessed according to the procedure for the reassessment of conformity described in Annex III of Directive 2010/35/EU of 16 June 2010 or Annex IV, Part II, of Directive 1999/36/EC of 29 April 1999.

Cylinders and bundles of cylinders marked with the United Nations packaging symbol specified in 6.2.2.7.2 (a) shall not be granted a 15 year interval for periodic inspection.

1.4 Bundles of cylinders shall be constructed such that contact between cylinders along the longitudinal axis of the cylinders does not result in external corrosion. The supports and restraining straps shall be such as to minimise the risk of corrosion to the cylinders. Shock absorbent materials used in supports shall only be allowed if they have been treated to eliminate water absorption. Examples of suitable materials are water resistant belting and rubber.

1.5 The owner shall submit documentary evidence to the competent authority demonstrating that the cylinders comply with the provisions of sub-paragraph 1.3. The competent authority shall verify that these conditions are met.

1.6 The competent authority shall check whether the provisions of sub-paragraphs 2 and 3 are fulfilled and correctly applied. If all provisions are fulfilled, it shall authorise the 15 year interval for periodic inspection for the cylinders or bundles of cylinders. In this authorisation a group of cylinders (see NOTE below) covered shall be clearly identified. The authorisation shall be delivered to the owner; the competent authority shall keep a copy. The owner shall keep the documents for as long as the cylinders are authorised for a 15 year interval.

NOTE: A group of cylinders is defined by the production dates of identical cylinders for a period, during which the applicable provisions of RID/ADR and of the technical code accepted by the competent authority have not changed in their technical content. Example: Cylinders of identical design and volume having been manufactured according to the provisions of RID/ADR as applicable between 1 January 1985 and 31 December 1988 in combination with a technical code accepted by the competent authority applicable for the same period form one group in terms of the provisions of this paragraph.

1.7 The owner shall ensure compliance with the provisions of RID/ADR and the authorisation given as appropriate and shall demonstrate this to the competent authority on request but at least every three years or when significant changes to the procedures are introduced.

2. Operational provisions

2.1 Cylinders or bundles of cylinders having been granted a 15 year interval for periodic inspection shall only be filled in filling centres applying a documented and certified quality system to ensure that all the provisions of paragraph (7) of this packing instruction and the

^a Council directive on the approximation of the laws of the Member States relating to seamless steel and aluminium alloy gas cylinders, published in the Official Journal of the European Communities No. L 300 of 19.11.1984.

requirements and responsibilities of EN 1919:2000, EN 1920:2000 or EN 13365:2002 as applicable are fulfilled and correctly applied. The quality system, according to the ISO 9000 (series) or equivalent, shall be certified by an accredited independent body recognized by the competent authority. This includes procedures for pre- and post-fill inspections and filling process for cylinders, bundles of cylinders and valves.

2.2 Aluminium alloy cylinders or bundles of such cylinders without RPVs having been granted a 15 year interval for periodic inspection shall be checked prior to every fill in accordance with a documented procedure which shall at least include the following:

- Open the cylinder valve or bundle of cylinders main valve to check for residual pressure;
- If gas is emitted, the cylinder or bundle of cylinders may be filled;
- If no gas is emitted, the internal condition of the cylinder or bundle of cylinders shall be checked for contamination;
- If no contamination is detected, the cylinder or bundle of cylinders may be filled.

If contamination is detected corrective action is to be carried out.

2.3 Seamless steel cylinders fitted with RPVs or bundles of seamless steel cylinders equipped with main valve(s) with a residual pressure device having been granted a 15 year interval for periodic inspection shall be checked prior to every fill in accordance with a documented procedure which shall at least include the following:

- Open the cylinder valve or bundle of cylinders main valve to check for residual pressure;
- If gas is emitted, the cylinder or bundle of cylinders may be filled;
- If no gas is emitted the functioning of the residual pressure device shall be checked;
- If the check shows that the residual pressure device has retained pressure the cylinder or bundle of cylinders may be filled;
- If the check shows that the residual pressure device has not retained pressure, the internal condition of the cylinder or bundle of cylinders shall be checked for contamination:
 - If no contamination is detected, the cylinder or bundle of cylinders may be filled following repair or replacement of the residual pressure device;
 - If contamination is detected, a corrective action shall be carried out.

2.4 To prevent internal corrosion, only gases of high quality with very low potential contamination shall be filled into cylinders or bundles of cylinders. This is deemed to be fulfilled, if the compatibility of gases/material is acceptable in accordance with EN ISO 11114-1:2012 and EN 11114-2:2013, and the gas quality meets the specifications in EN ISO 14175:2008 or, for gases not covered in the standard, a minimum purity of 99.5% by volume and a maximum moisture content of 40 ml/m³(ppm). For nitrous oxide the values shall be a minimum purity of 98% by volume and a maximum moisture content of 70 ml/m³ (ppm).

2.5 The owner shall ensure that the requirements of 2.1 to 2.4 are fulfilled and provide documentary evidence of this to the competent authority on request, but at least every three years or when significant changes to the procedures are introduced.

2.6 If a filling centre is situated in a different RID Contracting State/Contracting Party to ADR, the owner shall provide to the competent authority, on request, additional

documentary evidence that the filling centre is monitored accordingly by the competent authority of that RID Contracting State/ Contracting Party to ADR. See also 1.2.

3. Provisions for qualification and periodic inspection

3.1 Cylinders or bundles of cylinders already in use, for which the conditions of sub-paragraph 2 have been met from the date of the last periodic inspection to the satisfaction of the competent authority, may have their inspection period extended to 15 years from the date of the last periodic inspection. Otherwise the change of test period from ten to fifteen years shall be made at the time of periodic inspection. The periodic inspection report shall indicate that this cylinder or bundle of cylinders shall be fitted with a residual pressure device as appropriate. Other documentary evidence may be accepted by the competent authority.

3.2 If a cylinder with a 15 year interval fails the pressure test by bursting or leakage or if a severe defect is detected by a non-destructive test (NDT) during a periodic inspection the owner shall investigate and produce a report on the cause of the failure and if other cylinders (e.g. of the same type or group) are affected. In the latter case, the owner shall inform the competent authority. The competent authority shall then decide on appropriate measures and inform the competent authorities of all other Contracting Parties to RID/ADR accordingly.

3.3 If internal corrosion and other defects as defined in the periodic inspection standards referenced in 6.2.4 have been detected, the cylinder shall be withdrawn from use and shall not be granted any further period for filling and carriage.

3.4 Cylinders or bundles of cylinders having been granted a 15 year interval for periodic inspection shall only be fitted with valves designed and tested according to EN 849 or EN ISO 10297 as applicable at the time of manufacture (see also the table in 6.2.4.1). After a periodic inspection a new valve shall be fitted, except that valves which have been refurbished or inspected according to EN ISO 22434:2011 may be re-fitted.

4. Marking

Cylinders and bundles of cylinders having been granted a 15 year interval for periodic inspection in accordance with this paragraph shall have the date (year) of the next periodic inspection as required in section 5.2.1.6 (c) and at the same time additionally be marked clearly and legibly with "P15Y". This marking shall be removed if the cylinder or bundle of cylinders is no longer authorised for a 15 year interval for periodic inspection.”.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/42 and informal documents INF.53 and INF.55)

4.1.4.1, P200, Table 1, for UN Nos. 1002, 1006, 1046, 1049, 1056, 1065, 1066, 1072, 1954, 1956, 1957, 1964, 1971, 2034 and 3156 Insert “ua, va” in the column for “Special packing provisions”.

4.1.4.1, P200, Table 2, for UN Nos. 1013, 1070 and 1080 Insert “ua, va” in the column for “Special packing provisions” against all filling ratio values.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/42 and informal documents INF.53 and INF.55)

4.1.4.1, P203 (8) Existing text of paragraph (8) under "Requirements for closed cryogenic receptacles" becomes sub-paragraph (a)” in front of the existing provision and add the following new sub-paragraph (b):

“(b) The periodic inspection and test frequencies of non-UN closed cryogenic receptacles in accordance with 6.2.3.5.2 shall not exceed 10 years.”.

(Reference document: informal document INF.54)

4.1.4.2, IBC08 At the end, add: “Special packing provision specific to RID and ADR:

BB3 For UN 3509, IBCs are not required to meet the requirements of 4.1.1.3.

IBC meeting the requirements of 6.5.5, made leak tight or fitted with a leak tight and puncture resistant sealed liner or bag, shall be used.

When the only residues are solids which are not liable to become liquid at temperatures likely to be encountered during carriage, flexible IBCs may be used.

When liquid residues are present, rigid IBCs that provide a means of retention (e.g. absorbent material) shall be used.

Before being filled and handed over for carriage, every IBC shall be inspected to ensure that it is free from corrosion, contamination or other damages. Any IBC showing signs of reduced strength, shall no longer be used (minor dents and scratches are not considered as reducing the strength of the IBC).

IBCs intended for the carriage of packagings, discarded, empty, uncleaned with residues of Class 5.1 shall be so constructed or adapted that the goods cannot come into contact with wood or any other combustible material.”.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/45)

4.1.4.3, LP02 At the end, add: “Special packing provision specific to RID and ADR:

LL1 For UN 3509, large packagings are not required to meet the requirements of 4.1.1.3.

Large packagings meeting the requirements of 6.6.4, made leak tight or fitted with a leak tight and puncture resistant sealed liner or bag, shall be used.

When the only residues are solids which are not liable to become liquid at temperatures likely to be encountered during carriage, flexible large packagings may be used.

When liquid residues are contained, rigid large packagings that provide a means of retention (e.g. absorbent material) shall be used.

Before being filled and handed over for carriage, every large packaging shall be inspected to ensure that it is free from corrosion, contamination or other damages. Any large packaging showing signs of reduced strength, shall no longer be used (minor dents and scratches are not considered as reducing the strength of the large packaging).

Large packagings intended for the carriage of packagings, discarded, empty, uncleaned with residues of Class 5.1 shall be so constructed or adapted that the goods cannot come into contact with wood or any other combustible material.”.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/45)

Chapter 4.3

4.3.2.2.1 Amend to read as follows:

“4.3.2.2.1 The following degrees of filling shall not be exceeded in tanks intended for the carriage of liquids at ambient temperatures:

- (a) for flammable substances, environmentally hazardous substances and flammable environmentally hazardous substances, without additional risks (e.g. toxicity or corrosivity), in tanks with a breather device or with safety valves (even where preceded by a bursting disc):

$$\text{Degree of filling} = \frac{100}{1 + \alpha (50 - t_F)} \% \text{ of capacity}$$

- (b) for toxic or corrosive substances (whether flammable or environmentally hazardous or not) in tanks with a breather device or with safety valves (even where preceded by a bursting disc):

$$\text{Degree of filling} = \frac{98}{1 + \alpha (50 - t_F)} \% \text{ of capacity}$$

- (c) for flammable substances, environmentally hazardous substances and slightly toxic or corrosive substances (whether flammable or environmentally hazardous or not) in hermetically closed tanks without a safety device:

$$\text{Degree of filling} = \frac{97}{1 + \alpha (50 - t_F)} \% \text{ of capacity}$$

- (d) for highly toxic, toxic, highly corrosive or corrosive substances (whether flammable or environmentally hazardous or not) in hermetically closed tanks without a safety device:

$$\text{Degree of filling} = \frac{95}{1 + \alpha (50 - t_F)} \% \text{ of capacity}''.$$

(Reference documents: informal documents INF.20, INF.60/Rev.1 and INF.61)

Chapter 5.4

(ADR)

5.4.1.1.3 Amend the third paragraph to read as follows:

“If the provision for waste as set out in 2.1.3.5.5 is applied, the following shall be added to the dangerous goods description required in 5.4.1.1.1 (a) to (d) and (k):”.

Example after this paragraph remains unchanged.

(RID and ADN)

5.4.1.1.3 Amend the third paragraph to read as follows:

“If the provision for waste as set out in 2.1.3.5.5 is applied, the following shall be added to the dangerous goods description required in 5.4.1.1.1 (a) to (d):”.

Example after this paragraph remains unchanged.

(Reference document: informal document INF.11)

5.4.1.1.19 Add a new paragraph to read as follows:

“5.4.1.1.19 *Special provisions for carriage of packagings, discarded, empty, uncleaned (UN 3509)*

For packagings, discarded, empty, uncleaned, the proper shipping name specified in 5.4.1.1.1 (b) shall be complemented with the words “(WITH RESIDUES OF [...])” followed by the class(es) and subsidiary risk(s) corresponding to the residues, in the class numbering order. Moreover, 5.4.1.1.1 (f) does not apply.

Example: Packagings, discarded, empty, uncleaned having contained goods of Class 4.1 packed together with packagings, discarded, empty, uncleaned having contained goods of Class 3 with a Class 6.1 subsidiary risk should be referred in the transport document as:

“UN 3509 PACKAGINGS, DISCARDED, EMPTY, UNCLEANED (WITH RESIDUES OF 3, 4.1, 6.1), 9”.”.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/45)

5.4.1.2.5.1 (b) Replace “see last sentence of special provision 172 of Chapter 3.3” by “see sub-paragraph (c) of special provision 172 of Chapter 3.3”.

Chapter 5.5

5.5.3.3.3 Amend to read as follows:

“5.5.3.3.3 Packages containing a coolant or conditioner shall be carried in well ventilated vehicles/wagons and containers. This provision does not apply when such packages are carried in insulated, refrigerated or mechanically refrigerated equipment, as defined in the International Carriage of Perishable Foodstuffs and on the Special Equipment to be Used for such Carriage (ATP).”.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/44 and informal document INF.59/Rev.1, as amended)

Chapter 6.2

6.2.3.5.1 Replace “6.2.1.6.1” by “6.2.1.6”.

(Reference document: informal document INF.54)

6.2.3.5.2 Replace “Deleted” by the following new text:

“6.2.3.5.2 Closed cryogenic receptacles shall be subject to periodic inspections and tests in accordance with the periodicity defined in packing instruction P203 (8) of 4.1.4.1, in accordance with the following:

- (a) Check of the external condition of the receptacle and verification of the equipment and the external markings;
- (b) The leakproofness test.”.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/46 and informal document INF.54 as amended)

6.2.4.1 In the table under “for design and construction”:

In the entry for “EN 1800:2006”, replace “Until further notice” by “Between 1 January 2009 and 31 December 2016”, in column (4).

After “EN 1800:2006”, add the following new entry:

(1)	(2)	(3)	(4)	(5)
EN ISO 3807:[2013]	Gas cylinders – Acetylene cylinders – Basic requirements and type testing	6.2.1.1.9	Until further notice	

In the entry for “EN ISO 11120:1999”, replace “Until further notice” by “Between 1 July 2001 and [31 December 2015]”, in column (4). In column (5), add the following new text: “[31 December 2016] for tubes marked with the letter “H” in accordance with 6.2.2.7.4 (p)”

After “EN ISO 11120:1999”, add the following new entry:

(1)	(2)	(3)	(4)	(5)
EN ISO 11120:1999 + A1:2013	Gas cylinders – Refillable seamless steel tubes for compressed gas transport of water capacity between 150 litres and 3 000 litres – Design, construction and testing -	6.2.3.1 and 6.2.3.4	Until further notice	

In the entry for “EN 14427:2004”, replace “Until 30 June 2007” by “Between 1 January 2005 and 30 June 2007”, in column (4).

In the entry for “EN 14427:2004 + A1:2005”, replace “Until further notice” by “Between 1 January 2007 and 31 December 2016”, in column (4).

After “EN 14427:2004 + A1:2005”, add the following new entry:

(1)	(2)	(3)	(4)	(5)
EN 14427:[2013]	LPG Equipment and accessories – Transportable refillable fully wrapped composite cylinders for LPG – Design and construction	6.2.3.1 and 6.2.3.4	Until further notice	

In the entry for “EN 14893:2006 +AC:2007”, replace “Until further notice” by “Between 1 January 2009 and 31 December 2016”, in column (4).

After “EN 14893:2006 +AC:2007”, add the following new entry:

(1)	(2)	(3)	(4)	(5)
EN 14893:[2013]	LPG equipment and accessories – Transportable LPG welded steel pressure drums with a capacity between 150 and 1 000 litres	6.2.3.1 and 6.2.3.4	Until further notice	

6.2.4.2 At the end of the table, insert the following new standard:

(1)	(2)	(3)
<i>for periodic inspection and test</i>		
EN 15888: [2013]	Transportable gas cylinders - Cylinder bundles - Periodic inspection and testing	Until further notice

(Reference document: informal document INF.49)

6.2.6.1.5 Amend to read as follows:

“The internal pressure of aerosol dispensers at 50 °C shall exceed neither two-thirds of the test pressure nor 1.32 MPa (13.2 bar). They shall be so filled that at 50 °C the liquid phase does not exceed 95% of their capacity. Small receptacles containing gas (gas cartridges) shall meet the test pressure and filling requirements of P200 of 4.1.4.1.”

(Reference document: ECE/TRANS/WP.15/AC.1/2013/52 as amended)

Chapter 6.8

(ADR)

The existing NOTE under the heading of Chapter 6.8 becomes NOTE 1. Add a new NOTE 2 to read as follows:

NOTE 2: For fixed tanks (tank-vehicles) and demountable tanks with additive devices, see special provision 664 of Chapter 3.3.”

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/39 and informal document INF.60/Rev.1)

Chapter 6.11

6.11.1 Add the following new definition:

"*Flexible bulk container* means a flexible container with a capacity not exceeding 15 m³ and includes liners and attached handling devices and service equipment".

6.11.2.3 In the table add the following new row:

Flexible bulk container	BK3
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Add a new section 6.11.5 to read as follows:

6.11.5 Requirements for the design, construction, inspection and testing of BK3 flexible bulk containers

6.11.5.1 Design and construction requirements

6.11.5.1.1 Flexible bulk containers shall be sift-proof.

6.11.5.1.2 Flexible bulk containers shall be completely closed to prevent the release of contents.

6.11.5.1.3 Flexible bulk containers shall be waterproof.

6.11.5.1.4 Parts of the flexible bulk container which are in direct contact with dangerous goods:

- (a) shall not be affected or significantly weakened by those dangerous goods;
- (b) shall not cause a dangerous effect, e.g. catalysing a reaction or reacting with the dangerous goods; and
- (c) shall not allow permeation of the dangerous goods that could constitute a danger under normal conditions of carriage.

6.11.5.2 Service equipment and handling devices

6.11.5.2.1 Filling and discharge devices shall be so constructed as to be protected against damage during carriage and handling. The filling and discharge devices shall be secured against unintended opening.

6.11.5.2.2 Slings of the flexible bulk container, if fitted, shall withstand pressure and dynamic forces, which can appear in normal conditions of handling and carriage.

6.11.5.2.3 The handling devices shall be strong enough to withstand repeated use.

6.11.5.3 Inspection and testing

6.11.5.3.1 The design type of each flexible bulk container shall be tested as provided for in 6.11.5 in accordance with procedures established by the competent authority allowing the allocation of the mark and shall be approved by this competent authority.

6.11.5.3.2 Tests shall also be repeated after each modification of the design type, which alters the design, material or manner of construction of a flexible bulk container.

6.11.5.3.3 Tests shall be carried out on flexible bulk containers prepared as for carriage. Flexible bulk containers shall be filled to the maximum mass at which they may be used and the contents shall be evenly distributed. The substances to be carried in the flexible bulk container may be replaced by other substances except where this would invalidate the results of the test. When another substance is used it shall have the same physical characteristics (mass, grain size, etc.) as the substance to be carried. It is permissible to use

additives, such as bags of lead shot, to achieve the requisite total mass of the flexible bulk container so long as they are placed so that the test results are not affected.

6.11.5.3.4 Flexible bulk containers shall be manufactured and tested under a quality assurance programme which satisfies the competent authority, in order to ensure that each manufactured flexible bulk container meets the requirements of this Chapter.

6.11.5.3.5 *Drop test*

6.11.5.3.5.1 Applicability

For all types of flexible bulk containers, as a design type test.

6.11.5.3.5.2 Preparation for testing

The flexible bulk container shall be filled to its maximum permissible gross mass.

6.11.5.3.5.3 Method of testing

The flexible bulk container shall be dropped onto a target surface that is non-resilient and horizontal. The target surface shall be:

- (a) Integral and massive enough to be immovable;
- (b) Flat with a surface kept free from local defects capable of influencing the test results;
- (c) Rigid enough to be non-deformable under test conditions and not liable to become damaged by the tests; and
- (d) Sufficiently large to ensure that the test flexible bulk container falls entirely upon the surface.

Following the drop, the flexible bulk container shall be restored to the upright position for observation.

6.11.5.3.5.4 Drop height shall be:

Packing group III: 0.8 m

6.11.5.3.5.5 Criteria for passing the test

- (a) There shall be no loss of contents. A slight discharge, e.g. from closures or stitch holes, upon impact shall not be considered to be a failure of the flexible bulk container provided that no further leakage occurs after the container has been restored to the upright position;
- (b) There shall be no damage, which renders the flexible bulk container unsafe to be carried for salvage or for disposal.

6.11.5.3.6 *Top lift test*

6.11.5.3.6.1 Applicability

For all types of flexible bulk containers as a design type test.

6.11.5.3.6.2 Preparation for testing

Flexible bulk containers shall be filled to six times the maximum net mass, the load being evenly distributed.

6.11.5.3.6.3 Method of testing

A flexible bulk container shall be lifted in the manner for which it is designed until clear of the floor and maintained in that position for a period of five minutes.

6.11.5.3.6.4 Criteria for passing the test

There shall be no damage to the flexible bulk container or its lifting devices which renders the flexible bulk container unsafe for carriage or handling, and no loss of contents.

6.11.5.3.7 *Topple test*

6.11.5.3.7.1 Applicability

For all types of flexible bulk containers as a design type test.

6.11.5.3.7.2 Preparation for testing

The flexible bulk container shall be filled to its maximum permissible gross mass.

6.11.5.3.7.3 Method of testing

Flexible bulk container shall be toppled onto any part of its top by lifting the side furthest from the drop edge upon a target surface that is non-resilient and horizontal. The target surface shall be:

- (a) Integral and massive enough to be immovable;
- (b) Flat with a surface kept free from local defects capable of influencing the test results;
- (c) Rigid enough to be non-deformable under test conditions and not liable to become damaged by the tests; and
- (d) Sufficiently large to ensure that the tested flexible bulk container falls entirely upon the surface.

6.11.5.3.7.4 For all flexible bulk containers, the topple height is specified as follows:

Packing group III: 0.8 m

6.11.5.3.7.5 Criterion for passing the test

There shall be no loss of contents. A slight discharge, e.g. from closures or stitch holes, upon impact shall not be considered to be a failure of the flexible bulk container provided that no further leakage occurs.

6.11.5.3.8 *Righting test*

6.11.5.3.8.1 Applicability

For all types of flexible bulk containers designed to be lifted by the top or side part, as a design type test.

6.11.5.3.8.2 Preparation for testing

The flexible bulk container shall be filled to not less than 95% of its capacity and to its maximum permissible gross mass.

6.11.5.3.8.3 Method of testing

The flexible bulk container, lying on its side, shall be lifted at a speed of at least 0.1 m/s to an upright position, clear of the floor, by no more than half of the lifting devices.

6.11.5.3.8.4 Criterion for passing the test

There shall be no damage to the flexible bulk container or its lifting devices which renders the flexible bulk container unsafe for carriage or handling.

6.11.5.3.9 *Tear test*

6.11.5.3.9.1 Applicability

For all types of flexible bulk containers as a design type test.

6.11.5.3.9.2 Preparation for testing

The flexible bulk container shall be filled to its maximum permissible gross mass.

6.11.5.3.9.3 Method of testing

With the flexible bulk container placed on the ground, a 300 mm cut shall be made, completely penetrating all layers of the flexible bulk container on a wall of a wide face. The cut shall be made at a 45° angle to the principal axis of the flexible bulk container, halfway between the bottom surface and the top level of the contents. The flexible bulk container shall then be subjected to a uniformly distributed superimposed load equivalent to twice the maximum gross mass. The load must be applied for at least fifteen minutes. A flexible bulk container which is designed to be lifted from the top or the side shall, after removal of the superimposed load, be lifted clear of the floor and maintained in that position for a period of fifteen minutes.

6.11.5.3.9.4 Criterion for passing the test

The cut shall not propagate more than 25% of its original length.

6.11.5.3.10 *Stacking test*

6.11.5.3.10.1 Applicability

For all types of flexible bulk containers as a design type test.

6.11.5.3.10.2 Preparation for testing

The flexible bulk container shall be filled to its maximum permissible gross mass.

6.11.5.3.10.3 Method of testing

The flexible bulk container shall be subjected to a force applied to its top surface that is four times the design load-carrying capacity for 24 hours.

6.11.5.3.10.4 Criterion for passing the test

There shall be no loss of contents during the test or after removal of the load.

6.11.5.4 *Test report*

6.11.5.4.1 A test report containing at least the following particulars shall be drawn up and shall be available to the users of the flexible bulk container:

1. Name and address of the test facility;
2. Name and address of applicant (where appropriate);
3. Unique test report identification;
4. Date of the test report;
5. Manufacturer of the flexible bulk container;
6. Description of the flexible bulk container design type (e.g. dimensions, materials, closures, thickness, etc) and/or photograph(s);
7. Maximum capacity/maximum permissible gross mass;
8. Characteristics of test contents, e.g. particle size for solids;
9. Test descriptions and results;
10. The test report shall be signed with the name and status of the signatory.

6.11.5.4.2 The test report shall contain statements that the flexible bulk container prepared as for carriage was tested in accordance with the appropriate provisions of this Chapter and that the use of other containment methods or components may render it invalid. A copy of the test report shall be available to the competent authority.

6.11.5.5 *Marking*

6.11.5.5.1 Each flexible bulk container manufactured and intended for use according to the provisions of RID/ADR shall bear markings that are durable, legible and placed in a location so as to be readily visible. Letters, numerals and symbols shall be at least 24 mm high and shall show:

- (a) The United Nations packaging symbol



This symbol shall not be used for any purpose other than certifying that a packaging, a flexible bulk container, a portable tank or a MEGC complies with the relevant requirements in Chapters 6.1, 6.2, 6.3, 6.5, 6.6, 6.7 or 6.11 ;

- (b) The code BK3;
- (c) A capital letter designating the packing group(s) for which the design type has been approved:
Z for packing group III only;
- (d) The month and year (last two digits) of manufacture;
- (e) The character(s) identifying the country authorizing the allocation of the mark; as indicated by the distinguishing sign for motor vehicles in international traffic^{3x};
- (f) The name or symbol of the manufacturer and other identification of the flexible bulk container as specified by the competent authority;
- (g) The stacking test load in kg;
- (h) The maximum permissible gross mass in kg.

Marking shall be applied in the sequence shown in (a) to (h); each element of the marking, required in these subparagraphs, shall be clearly separated, e.g. by a slash or space and presented in a way that ensures that all of the parts of the mark are easily identified.

6.11.5.5.2 *Example of marking*



BK3/Z/11 09
RUS/NTT/MK-14-10
56000/14000".

Consequential amendment:

6.1.3.1 (a) (i), 6.2.2.7.2 (a), 6.2.2.9.2 (a), 6.3.4.2 (a), 6.5.2.1.1 (a), 6.6.3.1 (a), 6.7.2.20.1 (c) (i), 6.7.3.16.1 (c) (i), 6.7.4.15.1 (c) (i), 6.7.5.13.1 (c) (i) Amend the second sentence to read as follows: "This symbol shall not be used for any purpose other than certifying that a packaging, a flexible bulk container, a portable tank or a MEGC complies with the relevant requirements in Chapter 6.1, 6.2, 6.3, 6.5, 6.6, 6.7 or 6.11.".

^x

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

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/37 and informal document INF.10 as amended)

Chapter 7.1 (ADN)

7.1.1.18 In the heading and in the text, insert “, in bulk containers” after “containers”.

7.1.4.14.1.1 Add the following sentence at the end:

“Flexible bulk containers shall be stowed in such way that there are no void spaces between flexible bulk containers in the hold. If the flexible bulk containers do not completely fill the hold, adequate measures shall be taken to avoid shifting of cargo.”.

7.1.4.14.1.2 Add the following sentence at the end:

“Flexible bulk containers may be stacked on each other in holds provided that the stacking height does not exceed 3 high. When flexible bulk containers are fitted with venting devices, the stowage of the flexible bulk containers shall not impede their function.”.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/37 and informal document INF.10)

Chapter 7.3 (RID and ADR)

7.3.2.1 In the second sentence (existing first sentence), replace “codes BK1 and BK2” by “codes BK1, BK2 and BK3”. After the description of the meaning of BK1 and BK2, insert:

"BK3: Carriage in flexible bulk containers is permitted".

7.3.2.9 and 7.3.2.10 Add the following new sub-sections to read as follows:

“7.3.2.9 Goods of Class 9

7.3.2.9.1 For UN 3509, only closed bulk containers (code BK2) may be used. Bulk containers shall be made leak tight or fitted with a leak tight and puncture resistant sealed liner or bag, and shall have a means of retaining any free liquid that might escape during carriage, e.g. absorbent material. Packagings, discarded, empty, uncleaned with residues of Class 5.1 may be carried in bulk containers which have been so constructed or adapted that the goods cannot come into contact with wood or any other combustible material.

7.3.2.10 Use of flexible bulk containers

7.3.2.10.1 Before a flexible bulk container is filled it shall be visually examined to ensure it is structurally serviceable, its textile slings, load-bearing structure straps, body fabric, lock device parts including metal and textile parts are free from protrusions or damage and that inner liners are free from rips, tears or any damage.

7.3.2.10.2 For flexible bulk containers, the period of use permitted for the carriage of dangerous goods shall be two years from the date of manufacture of the flexible bulk container.

7.3.2.10.3 A venting device shall be fitted if a dangerous accumulation of gases may develop within the flexible bulk container. The vent shall be so designed that the penetration of foreign substances or ingress of water is prevented under normal conditions of carriage."

7.3.2.10.4 Flexible bulk containers shall be filled in such a way that when loaded the ratio of height to width does not exceed [(ADR: 1,1)] [(RID: 1,2)]. The maximum gross mass of the flexible bulk containers shall not exceed 14 tonnes.”.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/45
ECE/TRANS/WP.15/AC.1/2013/37 and informal document INF.10 as amended)

7.3.3.2.7 Add a new AP10 to read as follows:

“AP10 Wagons/vehicles and containers shall be made leak tight or fitted with a leak tight and puncture resistant sealed liner or bag, and shall have a means of retaining any free liquid that might escape during carriage, e.g. absorbent material. Packagings, discarded, empty, uncleaned with residues of Class 5.1 shall be carried in vehicles/wagons and containers which have been so constructed or adapted that the goods cannot come into contact with wood or any other combustible material.”.

(Reference documents: ECE/TRANS/WP.15/AC.1/2013/45 as amended)

Chapter 7.5 (RID and ADR)

In RID, add the following new paragraphs:

“7.5.7.4 (Reserved)

7.5.7.5 (Reserved)”.

(Reference document: informal document INF.10)

Add a new sub-section 7.5.7.6 to read as follows:

“7.5.7.6 *Loading of flexible bulk containers*

7.5.7.6.1 Flexible bulk containers shall be carried within a (ADR) vehicle or container/(RID) wagon or container with rigid sides and ends that extend at least two-thirds of the height of the flexible bulk container.

NOTE: *When loading flexible bulk containers in a (ADR) vehicle or container/(RID:) wagon or container particular attention shall be paid to the guidance on the handling and stowage of dangerous goods referred to in 7.5.7.1 and to the IMO/ILO/UNECE Guidelines for Packing Cargo Transport Units (CTUs).*

7.5.7.6.2 Flexible bulk containers shall be secured by suitable means capable of restraining them in the (ADR) vehicle or container/(RID) wagon or container in a manner that will prevent any movement during carriage which would change the position of the flexible bulk container or cause it to be damaged. Movement of the flexible bulk containers may also be prevented by filling any voids by the use of dunnage or by blocking and bracing. Where restraints such as banding or straps are used, these shall not be over-tightened to cause damage or deformation to the flexible bulk containers.

7.5.7.6.3 Flexible bulk containers shall not be stacked.”

Chapter 8.5 (ADR)

S13 Delete S13 and insert “S13 (Deleted)”.

(Reference document: ECE/TRANS/WP.15/AC.1/2013/34)