



# Economic and Social Council

Distr.: General  
20 October 2017  
English  
Original: English and French

---

## 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 2017 session\*

held in Geneva, 19-29 September 2017

Addendum\*\*

---

\* Circulated by the Intergovernmental Organization for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2017-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.

\*\* Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2017-B/Add.1.

## Annex I

### Draft amendments to RID, ADR and ADN for entry into force on 1 January 2019

#### Chapter 1.1

1.1.3.6.3 In the text after the table, in the first indent, replace “gross mass in kilograms” by “total mass in kilograms of the articles without their packagings”.

*(Reference document: ECE/TRANS/WP.15/AC.1/2017/37, option 2, as amended)*

1.1.4.3 In the footnote, replace “DSC.1/Circ.12 and Corrigenda” by “CCC.1/Circ.3”.

*(Reference document: informal document INF.14)*

#### Chapter 1.2

1.2.1 In the definition of “UN Model Regulations”, replace “nineteenth” by “twentieth” and replace “(ST/SG/AC.10/1/Rev.19)” by “(ST/SG/AC.10/1/Rev.20)”.

1.2.1 Add the following new definition:

“*Over-moulded cylinder*” means a cylinder intended for the carriage of LPG with a water capacity not exceeding 13 litres made of a coated welded steel inner cylinder with an over-moulded protective case made from cellular plastic, which is non-removable and bonded to the outer surface of the steel cylinder wall;”.

*(Reference document: ECE/TRANS/WP.15/AC.1/2017/33 as amended in informal documents INF.55 and INF.56)*

#### Chapter 1.6

1.6.1.1 Replace “30 June 2017” by “30 June 2019”. Replace “31 December 2016” by “31 December 2018”.

(RID:) In footnote 15, replace “2015” by “2017”.

*(Reference document: informal document INF.30)*

1.6.1.25, (RID:) 1.6.1.37, 1.6.1.39, 1.6.1.40 and 1.6.1.42 Delete and add “(Deleted)”.

*(Reference document: informal document INF.30)*

(RID:) 1.6.3.15, (ADR:) 1.6.3.17, 1.6.3.42, 1.6.4.15, 1.6.4.38, 1.6.4.44, 1.6.4.45 Delete and add “(Deleted)”.

*(Reference document: informal document INF.30)*

(ADR:) 1.6.3.44 Delete “, may continue to be used until their first intermediate or periodic inspection after 31 December 2015. After this date, they”.

*(Reference document: informal document INF.30)*

#### Chapter 1.10

Table 1.10.3.1.2 Amend the text of the first line for Class 2 to read as follows: “Flammable, non-toxic gases (classification codes including only letters F or FC)”.

(Reference document: ECE/TRANS/WP.15/AC.1/2017/29, as amended)

## Chapter 2.1

[2.1.3.5.5 Amend the footnote 2 to read as follows:

“<sup>2</sup> Such legislation is for instance the Commission Decision No 2014/955/EU of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council (Official Journal of the European Union No. L 370 of 30 December 2014, pages 44 to 86) and Commission Regulation (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives (Official Journal of the European Union No. L 365 of 19 December 2014, pages 89 to 96).”.]

(Reference document: informal document INF.21)

## Chapter 2.2

2.2.9.1.3 Replace “2.2.9.1.4 to 2.2.9.1.14” by “2.2.9.1.4 to 2.2.9.1.8, 2.2.9.1.10, 2.2.9.1.11, 2.2.9.1.13 and 2.2.9.1.14”.

(Reference document: ECE/TRANS/WP.15/AC.1/2017/43)

## Chapter 3.2

3.2.1 In the explanatory text for column (3b), in the penultimate indent, delete “, 8”. Add a new indent right after to read as follows:

“- For dangerous substances or articles of Class 8, the codes are explained in 2.2.8.1.4.1;”.

(Consequential amendment)

### 3.2.1, Table A

For UN Nos. 1002, 1006, 1013, 1046, 1056, 1058, 1065, 1066, 1070, 1072, 1080, 1952, 1956, 2036, 2073, 2451, 3070, 3156, 3157, 3163, 3297, 3298 and 3299, insert “660” in column (6).

(Reference document: informal document INF.54)

For UN Nos. 1011, 1075, 1965, 1969 and 1978, insert “674” in column (6).

(Reference document: ECE/TRANS/WP.15/AC.1/2017/33 as amended in informal documents INF.55 and INF.56)

For UN No. 1744, add “TU43” in column (13).

(Reference document: informal document INF.46, proposal 2)

For UN No. 3266, packing groups II and III Add “TU42” in column (13).

(Reference document: informal document INF.46, proposal 4)

For UN Nos. 3359 and 3373 first entry, add “-” [(ADR:) in the upper case] of column (15).

(Consequential amendment)

### Chapter 3.3

Special provision 660 Amend to read as follows:

“660 For the carriage of fuel gas containment systems designed and approved to be fitted in motor vehicles containing this gas the provisions of sub-section 4.1.4.1 and Chapter 6.2 [ADN: of ADR] need not be applied when carried for disposal, recycling, repair, inspection, maintenance or from where they are manufactured to a vehicle assembly plant, provided the conditions described in special provision 392 are met. This also applies for mixtures of gases subject to special provision 392 and gases of group A subject to this special provision.”.

*(Reference document: informal document INF.54)*

Special provision 666 Amend the first paragraph to read as follows:

“Vehicles and battery powered equipment, referred to by special provision 388, when carried as a load, as well as any dangerous goods they contain that are necessary for their operation or the operation of their equipment, are not subject to any other provisions of RID/ADR/ADN, provided the following conditions are met:”.

*(Replaces the amendment in document ECE/TRANS/WP.15/AC.1/2017/26/Add.1)*

*(Reference document: ECE/TRANS/WP.15/AC.1/2017/27, as amended)*

Add the following new special provision:

“674 This special provision applies to periodic inspection and test of over-moulded cylinders as defined in 1.2.1.

Over-moulded cylinders subject to 6.2.3.5.3.1 shall be subject to periodic inspection and test in accordance with 6.2.1.6.1, adapted by the following alternative method:

- Substitute test required in 6.2.1.6.1 d) by alternative destructive tests;
- Perform specific additional destructive tests related to the characteristics of over-moulded cylinders.

The procedures and requirements of this alternative method are described below.

Alternative method:

(a) General

The following provisions apply to over-moulded cylinders produced serially and based on welded steel cylinders in accordance with EN 1442:2017, EN 14140:2014 + AC:2015 or annex I, parts 1 to 3 to Council Directive 84/527/EEC. The design of the over-moulding shall prevent water from penetrating on to the inner steel cylinder. The conversion of the steel cylinder to an over-moulded cylinder shall comply with the relevant requirements of EN 1442:2017 and EN 14140:2014 + AC:2015.

Over-moulded cylinders shall be equipped with self-closing valves.

(b) Basic population

A basic population of over-moulded cylinders is defined as the production of cylinders from only one over-moulding manufacturer using new inner cylinders manufactured by only one manufacturer within one calendar year, based on the same design type, the same materials and production processes.

(c) Sub-groups of a basic population

Within the above defined basic population, over-moulded cylinders belonging to different owners shall be separated into specific sub-groups, one per owner.

If the whole basic population is owned by one owner, the sub-group equals the basic population.

(d) Traceability

Inner steel cylinder marks in accordance with 6.2.3.9 shall be repeated on the over-moulding. In addition, each over-moulded cylinder shall be fitted with an individual resilient electronic identification device. The detailed characteristics of the over-moulded cylinders shall be recorded by the owner in a central database. The database shall be used to:

- Identify the specific sub-group;
- Make available to inspection bodies, filling centres and competent authorities the specific technical characteristics of the cylinders consisting of at least the following: serial number, steel cylinder production batch, over-moulding production batch, date of over-moulding;
- Identify the cylinder by linking the electronic device to the database with the serial number;
- Check individual cylinder history and determine measures (e.g. filling, sampling, retesting, withdrawal);
- Record performed measures including the date and the address of where it was done.

The recorded data shall be kept available by the owner of the over-moulded cylinders for the entire life of the sub-group.

(e) Sampling for statistical assessment

The sampling shall be random among a sub-group as defined in sub-paragraph (c). The size of each sample per sub-group shall be in accordance with the table in sub-paragraph (g).

(f) Test procedure for destructive testing

The inspection and test required by 6.2.1.6.1 shall be carried out except (d) which shall be substituted by the following test procedure:

- Burst test (according to EN 1442:2017 or EN 14140:2014 + AC:2015).

In addition, the following tests shall be performed:

- Adhesion test (according to EN 1442:2017 or EN 14140:2014 + AC:2015);
- Peeling and Corrosion tests (according to EN ISO 4628-3:2016).

Adhesion test, peeling and corrosion tests, and burst test shall be performed on each related sample according to the table in sub-paragraph (g) and shall be conducted after the first 3 years in service and every 5 years thereafter.

(g) Statistical evaluation of test results –Method and minimum requirements

The procedure for statistical evaluation according to the related rejection criteria is described in the following.

Test interval (years)	Type of test	Standard	Rejection criteria	Sampling out of a sub-group
After 3 years in service (see (f))	Burst test	EN 1442:2017	Burst pressure point of the representative sample must be above the lower limit of	$3\sqrt[3]{Q}$ or $Q/200$ whichever is lower,

			tolerance interval on the Sample Performance Chart $\Omega_m \geq 1 + \Omega_s \times k3(n;p;1-\alpha)^a$ No individual test result shall be less than the test pressure	and with a minimum of 20 per sub-group (Q)
	Peeling and corrosion	EN ISO 4628-3:2016	Max corrosion grade: Ri2	Q/1 000
	Adhesion of Polyurethane	ISO 2859-1:1999 + A1:2011 EN 1442:2017 EN 14140:2014 + AC:2015	Adhesion value > 0.5 N/mm <sup>2</sup>	See ISO 2859-1:1999 + A1:2011 applied to Q/1000
Every 5 years thereafter (see (f))	Burst test	EN 1442:2017	Burst pressure point of the representative sample must be above the lower limit of tolerance interval on the Sample Performance Chart $\Omega_m \geq 1 + \Omega_s \times k3(n;p;1-\alpha)^a$ No individual test result shall be less than the test pressure	$6\sqrt[3]{Q}$ or Q/100 whichever is lower, and with a minimum of 40 per sub-group (Q)
	Peeling and corrosion	EN ISO 4628-3:2016	Max corrosion grade: Ri2	Q/1 000
	Adhesion of Polyurethane	ISO 2859-1:1999 + A1:2011 EN 1442:2017 EN 14140:2014 + AC:2015	Adhesion value > 0.5 N/mm <sup>2</sup>	See ISO 2859-1:1999 + A1:2011 applied to Q/1000

<sup>a</sup> *Burst pressure point (BPP) of the representative sample is used for the evaluation of test results by using a Sample Performance Chart:*

*Step 1: Determination of the burst pressure point (BPP) of a representative sample*

*Each sample is represented by a point whose coordinates are the mean value of burst test results and the standard deviation of burst test results, each normalised to the relevant test pressure.*

$$BPP: (\Omega_s = \frac{s}{PH}; \Omega_m = \frac{x}{PH})$$

*with*

*x: sample mean value;*

*s: sample standard deviation;*

*PH: test pressure*

*Step 2: Plotting on a Sample Performance Chart*

*Each BPP is plotted on a Sample Performance Chart with following axis:*

- *Abscissa : Standard Deviation normalised to test pressure ( $\Omega_s$ )*
- *Ordinate : Mean value normalised to test pressure ( $\Omega_m$ )*

*Step 3: Determination of the relevant lower limit of tolerance interval in the Sample Performance Chart*

Results for burst pressure shall first be checked according to the Joint Test (multidirectional test) using a significance level of  $\alpha=0.05$  (see paragraph 7 of ISO 5479:1997) to determine whether the distribution of results for each sample is normal or non-normal.

- For a normal distribution, the determination of the relevant lower limit of tolerance is given in step 3.1.

- For a non-normal distribution, the determination of the relevant lower limit of tolerance is given in step 3.2.

**Step 3.1: Lower limit of tolerance interval for results following a normal distribution**

In accordance with the standard ISO 16269-6:2014, and considering that the variance is unknown, the unilateral statistical tolerance interval shall be considered for a confidence level of 95% and a fraction of population equal to 99.9999%.

By application in the Sample Performance Chart, the lower limit of tolerance interval is represented by a line of constant survival rate defined by the formula:

$$\Omega_m = 1 + \Omega_s \times k3(n;p;1-\alpha)$$

with

$k3$ : factor function of  $n$ ,  $p$  and  $1-\alpha$ ;

$p$ : proportion of the population selected for the tolerance interval (99.9999%);

$1-\alpha$ : confidence level (95%);

$n$ : sample size.

The value for  $k3$  dedicated to Normal Distributions shall be taken from the table at end of Step 3.

**Step 3.2: Lower limit of tolerance interval for results following a non-normal distribution**

The unilateral statistical tolerance interval shall be calculated for a confidence level of 95% and a fraction of population equal to 99.9999%.

The lower limit of tolerance is represented by a line of constant survival rate defined by the formula given in previous step 3.1, with factors  $k3$  based and calculated on the properties of a Weibull Distribution.

The value for  $k3$  dedicated to Weibull Distributions shall be taken from the table below at end of Step 3.

<b>Table for <math>k3</math></b> <i><math>p=99.9999\%</math> and <math>(1-\alpha)=0.95</math></i>		
<b>Sample size</b> <b><math>n</math></b>	<b>Normal distribution</b> <b><math>k3</math></b>	<b>Weibull distribution</b> <b><math>k3</math></b>
20	6.901	16.021
22	6.765	15.722
24	6.651	15.472
26	6.553	15.258
28	6.468	15.072
30	6.393	14.909
35	6.241	14.578
40	6.123	14.321

<i>Table for k3</i>		
<i>p=99.9999% and (1-<math>\alpha</math>)=0.95</i>		
<i>Sample size n</i>	<i>Normal distribution k3</i>	<i>Weibull distribution k3</i>
45	6.028	14.116
50	5.949	13.947
60	5.827	13.683
70	5.735	13.485
80	5.662	13.329
90	5.603	13.203
100	5.554	13.098
150	5.393	12.754
200	5.300	12.557
250	5.238	12.426
300	5.193	12.330
400	5.131	12.199
500	5.089	12.111
1000	4.988	11.897
$\infty$	4.753	11.408

**NOTE:** If sample size is between two values, the closest lower sample size shall be selected.

(h) Measures if the acceptance criteria are not met

If a result of the burst test, peeling and corrosion test or adhesion test does not comply with the criteria detailed in the table in paragraph (g), the affected sub-group of over-moulded cylinders shall be segregated by the owner for further investigations and not be filled or made available for transport and use.

In agreement with the competent authority or the Xa-body which issued the design approval, additional tests shall be performed to determine the root cause of the failure.

If the root cause cannot be proved to be limited to the affected sub-group of the owner, the competent authority or the Xa-body shall take measures concerning the whole basic population and potentially other years of production.

If the root cause can be proved to be limited to a part of the affected sub-group, not affected parts may be authorized by the competent authority to return to service. It shall be proved that no individual over-moulded cylinder returning to service is affected.

(i) Filling centre requirements

The owner shall make available to the competent authority documentary evidence that the filling centres:

- Comply with the provisions of packing instruction P200 (7) of 4.1.4.1 and that the requirements of the standard on pre-fill inspections referenced in table P200 (11) of 4.1.4.1 are fulfilled and correctly applied;

- Have the appropriate means to identify over-moulded cylinders through the electronic identification device;
- Have access to the database as defined in (d);
- Have the capacity to update the database;
- Apply a quality system, according to the standard ISO 9000 (series) or equivalent, certified by an accredited independent body recognized by the competent authority.”.

*(Reference document: ECE/TRANS/WP.15/AC.1/2017/33 as amended in informal documents INF.55 and INF.56)*

## Chapter 4.1

4.1.4.1, packing instruction P200 In paragraph (10), in special packing provision “va”, add “or EN ISO 15996:2017” after “EN ISO 15996:2005 + A1:2007” (twice).

*(Reference document: informal document INF.53, proposal 3)*

4.1.4.1, packing instruction P200 In paragraph (11), in the Table, in column “Reference”, for “EN 1439” delete “(except 3.5 and Annex G).

*(Reference document: ECE/TRANS/WP.15/AC.1/2017/33 as amended in informal documents INF.55 and INF.56)*

4.1.6.15 In the table, for “4.1.6.8 Valves with inherent protection”, add the following new row:

4.1.6.8 Valves with inherent protection	EN ISO 17879:2017	Gas cylinders - Self-closing cylinder valves - Specification and type testing
---	-------------------	---

*(Reference document: informal document INF.53, proposal 4)*

## Chapter 4.3

4.3.5 Add the following new special provision TU43:

“TU43 An empty uncleaned tank may be offered for carriage after the date of expiry of the last inspection of the lining for a period not to exceed three months beyond this date for the purposes of performing the next inspection of the lining prior to refilling (see special provision TT2 in 6.8.4 (d)).”.

*(Reference document: informal document INF.46, proposal 1)*

## Chapter 5.2

[5.2.2.2.1.1.2 Replace the second and third sentences by “The minimum dimensions shall be 100 mm x 100 mm. There shall be a line inside the edge forming the diamond which shall be parallel and approximately 5 mm from the outside of that line to the edge of the label.”.]

*(Reference document: informal document INF.57)*

## Chapter 5.3

5.3.1.1.1 At the end, add: “The placards shall be weather-resistant and shall ensure durable marking throughout the entire journey.”.

*(Reference document: informal document INF.31, proposal 1)*

5.3.3 Add the following sentence at the end of the second paragraph: “The mark shall be weather-resistant and shall ensure durable marking throughout the entire journey.”.

*(Reference document: informal document INF.31 proposal 2, as amended in INF.31/Rev1)*

5.3.6.1 Add the following new sentence at the end: “This does not apply to the exceptions listed in 5.2.1.8.1”.

*(Reference document: ECE/TRANS/WP.15/AC.1/2017/30)*

## Chapter 6.1

6.1.1.1 (b) Replace “(see Chapter 6.3, Note and packing instruction P621 of 4.1.4.1)” by “(see Note under the heading of Chapter 6.3 and packing instruction P621 of 4.1.4.1)”.

*(Reference document: ECE/TRANS/WP.15/AC.1/2017/43, as amended)*

## Chapter 6.2

Add a new 6.2.3.5.3 to read as follows:

*“6.2.3.5.3 General provisions for the substitution of dedicated check(s) for periodic inspection and test required in 6.2.3.5.1*

6.2.3.5.3.1 This paragraph only applies to types of pressure receptacles designed and manufactured in accordance with the standards referred to in 6.2.4.1 or a technical code in accordance with 6.2.5, and for which the inherent properties of the design prevent the checks (b) or (d) for periodic inspection and test required in 6.2.1.6.1 to be applied or the results to be interpreted.

For such pressure receptacles, these check(s) shall be replaced by alternative method(s) related to the characteristics of the specific design specified under 6.2.3.5.4, and detailed in a special provision of Chapter 3.3 or a standard referenced in 6.2.4.2.

The alternative methods shall specify which checks and tests according to 6.2.1.6.1 (b) and (d) are to be substituted.

The alternative method(s) in combination with the remaining checks according to 6.2.1.6.1 (a) to (e) shall ensure a level of safety at least equivalent to the safety level for pressure receptacles of a similar size and use which are periodically inspected and tested in compliance with 6.2.3.5.1.

The alternative method(s) shall moreover detail all the following elements:

- A description of the relevant types of pressure receptacles;
- The procedure for the test(s);
- The specifications of the acceptance criteria;
- A description of the measures to be taken in case of rejection of pressure receptacles.

6.2.3.5.3.2 Non-destructive testing as an alternative method

The check(s) identified in 6.2.3.5.3.1 shall be supplemented or replaced by one (or more) non-destructive test method(s) to be performed on each individual pressure receptacle.

#### 6.2.3.5.3.3 Destructive testing as an alternative method

If no non-destructive test method leads to an equivalent level of safety, the check(s) identified in 6.2.3.5.3.1, with exception of the check of the internal conditions mentioned in 6.2.1.6.1 b, shall be supplemented or replaced by one (or more) destructive test method(s) in combination with its statistical evaluation.

In addition to the elements described above, the detailed method for destructive testing shall document the following elements:

- A description of the relevant basic population of pressure receptacles;
- A procedure for the random sampling of individual pressure receptacles to be tested;
- A procedure for the statistical evaluation of the test results including rejection criteria;
- A specification for the periodicity of destructive sample tests;
- A description of the measures to be taken if acceptance criteria are met but a safety relevant degradation of material properties is observed, which shall be used for the determination of the end of service life;
- A statistical assessment of the level of safety achieved by the alternative method.”.

*(Reference document: ECE/TRANS/WP.15/AC.1/2017/33 as amended in informal documents INF.55 and INF.56)*

Add the following new 6.2.3.5.4:

“6.2.3.5.4 Over-moulded cylinders subject to 6.2.3.5.3.1 shall be subject to periodic inspection and test in accordance with special provision 674 of Chapter 3.3.”.

*(Reference document: ECE/TRANS/WP.15/AC.1/2017/33 as amended in informal documents INF.55 and INF.56)*

#### 6.2.3.6.1 Amend the first paragraph after the table to read as follows:

“For refillable pressure receptacles, the conformity assessment of valves and other demountable accessories having a direct safety function may be carried out separately from the pressure receptacles. For non-refillable pressure receptacles, the conformity assessment of valves and other demountable accessories having a direct safety function shall be carried out together with the assessment of the pressure receptacles.”.

*(Reference document: informal document INF.20)*

6.2.4.1 In the table, under “for design and construction”, for “EN 14140:2014 +AC:2015”, in column (1), delete “(except over-moulded cylinders)”.

*(Reference document: ECE/TRANS/WP.15/AC.1/2017/33 as amended in informal documents INF.55 and INF.56)*

6.2.4.1 In the table, under “for closures”, for standard “EN ISO 17871:2015”, in column (4), replace “Until further notice” by “ Between 1 January 2017 and 31 December 2020”. After standard “EN ISO 17871:2015”, add the following new standard:

EN ISO 17871:2015 + A1:[2018]	Gas cylinders - Quick-release cylinder valves - Specification and type testing	6.2.3.1 , 6.2.3.3 and 6.2.3.4	Until further notice
-------------------------------	--	-------------------------------	----------------------

*(Reference document: informal document INF.53, proposal 1)*

6.2.4.1 In the table, under “for closure”, add the following new row:

EN ISO 17879:2017	Gas cylinders - Self-closing cylinder valves - Specification and type testing	6.2.3.1 and 6.2.3.4	Until further notice
-------------------	---	---------------------	----------------------

(Reference document: informal document INF.53, proposal 4)

6.2.4.2 In the table, delete the rows for “EN ISO 11623:2002 (except article 4”, “EN 14912:2005” and “EN 1440:2008 + A1:2012 (except annexes G and H)”. For standard “EN 1440:2016 (except annex c)”, in column 3), replace “Mandatorily from 1 January 2019” by “Until 31 December 2020”. After standard “EN 1440:2016 (except annex C)”, add the following new row:

EN 1440:2016 +A1 [2018] (except Annex C)	LPG equipment and accessories — Transportable refillable traditional welded and brazed steel Liquefied Petroleum Gas (LPG) cylinders — Periodic inspection	Mandatorily from 1 January 2021
--	--	---------------------------------

For standard “EN 16728:2016 (except clause 3.5, Annex F and Annex G)”, in column (3), replace “Mandatorily from 1 January 2019” by “Until 31 December 2020”. After standard “EN 16728:2016 (except clause 3.5, Annex F and Annex G)” add the following new row:

EN 16728:2016 +A1:[2018]	LPG equipment and accessories - Transportable refillable LPG cylinders other than traditional welded and brazed steel cylinders - Periodic inspection	Mandatorily from 1 January 2021
--------------------------	---	---------------------------------

(Reference document: informal document INF.53, proposal 6)

## Chapter 6.8

[6.8.2.1.18 Add the following sentence at the end of footnote 4 / footnote 2: “However the cross section of shells according to 6.8.2.1.14 a) may contain recesses or protrusions such as sumps, cut-outs or recessed manhole constructions. They may be constructed of flat or shaped (concave or convex) sheet metal. Dents and other unintended deformations shall not be regarded as recesses or protrusions.”.]

(Reference document: informal document INF.46, proposal 6)

6.8.2.1.23 In the first sentence of the first paragraph, after “The ability of the manufacturer” add “, or the maintenance or repair shop,” and at the end, delete “, which issues the type approval”. In the second sentence of the first paragraph, at the end, add “or the maintenance or repair shop”.

(Reference document: informal document INF.46, proposal 5)

(ADR:) 6.8.2.6.1 Under “for equipment”, for standard “EN 13317:2002 + A1:2006”, in column (4), replace “Until further notice” by “Between 1 January 2009 and 31 December 2020”. After standard “EN 13317: 2002 + A1:2006”, add the following new standard:

EN 13317:[2018]	Tanks for transport of dangerous goods - Service equipment for tanks - Manhole cover assembly	6.8.2.2 and 6.8.2.4.1	Until further notice
-----------------	---	-----------------------	----------------------

(Reference document: informal document INF.53, proposal 5)

6.8.3.2.21 At the end, delete “The basic requirements of this paragraph shall be deemed to have been complied with if the following standards are applied: (Reserved).”.

(Reference document: ECE/TRANS/WP.15/AC.1/2017/43)

6.8.3.6 In the table, for standard “EN 13807:2003”, in column (4), replace “Until further notice” by “Between 1 January 2005 and 31 December 2020”. After standard “EN 13807:2003”, add the following new standard:

EN 13807:2017	Transportable gas cylinders - Battery vehicles and multiple-element gas containers (MEGCs) - Design, manufacture, identification and testing	6.8.3.1.4, 6.8.3.1.5, 6.8.3.2.18 to 6.8.3.2.28, 6.8.3.4.12 to 6.8.3.4.14 and 6.8.3.5.10 to 6.8.3.5.13	Until further notice
---------------	--	--	----------------------

(Reference document: informal document INF.53, proposal 2)

6.8.4 (d), special provision TT2 At the end, add “(see special provision TU43 in 4.3.5)”.

(Reference document: informal document INF.46, proposal 3)

6.8.5.1.2 (a) At the end, add the following new indent:

“- Austenitic-ferritic stainless steels, down to a temperature of [-40 °C];”.

(Reference document: informal document INF.46, proposal 11)

6.8.5.2.1 At the end of the second indent, replace “or austenitic Cr - Ni steel”, by “austenitic Cr - Ni steel; or austenitic-ferritic stainless steel.”

(Reference document: informal document INF.46, proposal 12)

## Chapter 6.9

6.9.3.1 Replace “and 6.8.2.2.4” by “, 6.8.2.2.4 and 6.8.2.2.6”.

(Reference document: ECE/TRANS/WP.15/AC.1/2017/43)

## Chapter 6.10

6.10.1.2.1 In the third paragraph, in the first sentence, replace “with the exception of requirements overtaken by a special provision in this Chapter” by “except where overtaken by special requirements in this Chapter.”.

(Reference document: informal document INF.46, proposal 7)

## Chapter 7.5

7.5.2.2 The modification does not apply to the English text.

(ADR:) 7.5.11, special provision CV20 Replace “and special provisions V1 and V8 (5) and (6) of Chapter 7.2” by “and 7.1.7.4.7 and 7.1.7.4.8 as well as special provision V1 of Chapter 7.2”.

(Reference document: informal document INF.9)

7.5.11, special provision CV21 In the third paragraph, replace “in accordance with methods R2 or R4 of special provision V8 (3) of Chapter 7.2” by “in accordance with the methods described in 7.1.7.4.5 (b) or (d)”.

(Reference document: informal document INF.9)

## **(ADR:) Chapter 9.6**

9.6.2 Amend the first sentence to read as follows: “Suitable methods to prevent the control temperature from being exceeded are listed in 7.1.7.4.5.”

*(Reference document: informal document INF.9)*

## **Modifications to annex II of document ECE/TRANS/WP.15/AC.1/144**

1.6.3.48 and 1.6.4.50 Replace “2022” by “2026”.

*(Reference document: informal document INF.46, proposal 13)*

## **Modifications to annex II of document ECE/TRANS/WP.15/AC.1/146**

1.6.3.49 Delete the text in square brackets.

*(Reference document: informal document INF.46, proposal 9)*

1.6.3.53 Delete the square brackets.

*(Reference document: informal document INF.46, proposal 8)*

1.6.4.51 Delete the text in square brackets.

*(Reference document: informal document INF.46, proposal 9)*

6.8.2.2.3 In the new paragraph before the table, replace “EN ISO16852:[2010]” by “EN ISO 16852:2016 (*Flame arresters - Performance requirements, test methods and limits for use.*)”. In the table, in the second column, replace “EN ISO 16852:[2010]” by “EN ISO 16852:2016” in each row of the table.

*(Reference document: informal document INF.46, proposal 10)*

6.8.2.3.1 Delete the square brackets.

*(Reference document: informal document INF.46, proposal 8)*

## **Document ECE/TRANS/WP.15/AC.1/2017/26/Add.1 and its annex adopted with the following modifications:**

Delete the square brackets everywhere in the document except in Chapter 7.1.

### **Chapter 1.6**

1.6.1.XX Renumber as 1.6.1.46 and at the end, after “until”, replace “[...]” by “31 December 2022”. The last modification does not apply to the English text.

### **Chapter 2.1**

2.1.4.3.1 (a) The modification does not apply to the English text.

[2.1.5 Renumber the Note as Note 1 and insert a new Note 2 to read as follows:

“**NOTE 2:** The term “existing proper shipping name” in NOTE 1 above excludes specific *n.o.s.* entries for UN Nos. 3537 to 3548.”.]

*(Reference document: informal document INF.47)*

2.1.5.1 The modification does not apply to the English text.

2.1.5.6 The new paragraph 2.1.5.6 reads as follows:

“2.1.5.6 Subsidiary hazards shall be representative of the primary hazards posed by the other dangerous goods contained within the article. When only one item of dangerous goods is present in the article, the subsidiary hazard(s), if any, shall be the subsidiary hazard(s) identified by the subsidiary hazard label(s) in column (5) of Table A of Chapter 3.2. If the article contains more than one item of dangerous goods and these could react dangerously with one another during carriage, each of the dangerous goods shall be enclosed separately (see 4.1.1.6).”

(Reference: Option 2 of ECE/TRANS/WP.15/AC.1/2017/26/Add.1, as amended)

## Chapter 2.2

2.2.1.1.1 (c) The modification does not apply to the English text.

2.2.3.3 The modification does not apply to the English text.

2.2.51.2.2 The amendment should read as follows:

“2.2.51.2.2 Replace indent thirteen by the following text:

“- ammonium nitrate based fertilizers with compositions that lead to exit boxes 4, 6, 8, 15, 31, or 33 of the flowchart of paragraph 39.5.1 of the Manual of Tests and Criteria, Part III, Section 39, unless they have been assigned a suitable UN number in Class 1;

- ammonium nitrate based fertilizers with compositions that lead to exit boxes 20, 23 or 39 of the flowchart of paragraph 39.5.1 of the Manual of Tests and Criteria, Part III, Section 39, unless they have been assigned a suitable UN number in Class 1 or, provided that the suitability for carriage has been demonstrated and that this has been approved by the competent authority, in Class 5.1 other than UN No. 2067;”.

The amendment in the annex is deleted.

(Reference document: ECE/TRANS/WP.15/AC.1/2017/35, as amended in informal document INF.12)

2.2.8.1.6.3.2 The modification does not apply to the English text.

Before 2.2.8.2, replace “[2.2.8.1.9 and Note *Remain unchanged*]” by:

“2.2.8.1.9 (Deleted)

*The existing Note before 2.2.8.2 remains unchanged.*”.

2.2.8.2 Amend to read as follows:

**“2.2.8.2 Substances not accepted for carriage**

2.2.8.2.1 and 2.2.8.2.2 *remain unchanged*

2.2.8.3 *Existing text with the following amendment: In the “List of collective entries”, for “Articles C11” add “3547 ARTICLES CONTAINING CORROSIVE SUBSTANCE, N.O.S.”.*”.

## Chapter 3.2

3.2.1 The modification does not apply to the English text.

3.2.2 In the table, replace “2.1”, “2.2” and “2.3” by “2”.

## Chapter 3.3

The amendment to special provision 188 (c) should read as follows:

“Special provision 188 (c) Replace “2.2.9.1.7 (a) and (e)” by “2.2.9.1.7 (a), (e), (f) if applicable and (g)”.

Special provision 301 The first modification does not apply to the English text.

Special provision 301 Delete the last sentence.

[Special provision 301 At the end of this special provision, insert the following new note:

*“Note: In this special provision the reference to “a proper shipping name which already exists” excludes specific n.o.s. entries for UN Nos. 3537 to 3548.”.]*

*(Reference document: informal document INF.47)*

Special provision 307 At the end of the second sentence, after “Section 39”, add “subject to the restrictions of 2.2.51.2.2, thirteenth indent”.

*(Consequential amendment)*

Special provision 376 At the end of the second paragraph ending with “...ICAO Technical Instructions”, add the following sentence: “In both cases the cells and batteries are assigned to transport category 0.”. The second modification does not apply to the English text.

*(Reference document: informal document INF.16)*

Special provision 387 The modification does not apply to the English text.

Special provision 388 The modification does not apply to the English text.

Special provision 389 Amend the first paragraph to read as follows:

“This entry only applies to cargo transport units in which lithium ion batteries or lithium metal batteries are installed and which are designed only to provide power external to the unit. The lithium batteries shall meet the provisions of 2.2.9.1.7 (a) to (g) and contain the necessary systems to prevent overcharge and over discharge between the batteries.”.

*(Reference document: informal document INF.48)*

Special provision 389 The modification of the second paragraph does not apply to the English text.

Special provision 392 The modification of the first sentence to does not apply to the English text.

Special provision 392 (f) Delete “(f) (*Reserved*)”.

Special provision 392, in the table for ISO 11439:2013, the modification does not apply to the English text.

Special provision 392, in the table, for ISO/TS 15869:2009, the modification does not apply to the English text.

Special provision 660 Delete the amendment.

Special provision 666 Delete the amendment.

Special provision 671 Amend to read as follows:

“671 For the purposes of the total maximum permissible quantity per wagon or large container/exemption related to quantities carried per transport unit (see 1.1.3.6), the transport category shall be determined in relation to the packing group (see paragraph 3 of special provision 251):

- Transport category 3 for kits assigned to packing group III;
- Transport category 2 for kits assigned to packing group II;
- Transport category 1 for kits assigned to packing group I.”.

(Reference document: informal document INF.50)

#### **Chapter 4.1**

- 4.1.4.1, P520           The modification does not apply to the English text.
- 4.1.4.1, P907           The modification does not apply to the English text.
- 4.1.4.3, LP03           The modification does not apply to the English text.
- 4.1.4.3, LP905          The modification does not apply to the English text.
- 4.1.4.3, LP906          The modification does not apply to the English text.

#### **Chapter 5.2**

- 5.2.1, Note 2           The modification does not apply to the English text.
- 5.2.2.1.12.1           Amend to read as follows:

“5.2.2.1.12.1           Packages containing articles or articles carried unpackaged shall bear labels according to 5.2.2.1 reflecting the hazards established according to 2.1.5, except that for articles that in addition contain lithium batteries, a lithium battery mark or a label conforming to model No. 9A is not required.”.

(Reference document: ECE/TRANS/WP.15/AC.1/2017/39, as amended)

5.2.2.2.2           In the table, in the sub-headings, add “hazard” after “Class 1”, “Class 2”, “Class 3”, “Class 4.1”, “Class 4.2”, “Class 4.3”, “Class 5.1”, “Class 5.2”, “Class 6.1”, “Class 6.2”, “Class 7”, “Class 8” and “Class 9”. For Class 7, in the second column, replace “Category I”, “Category II” and “Category III” by “Category I – WHITE”, “Category II – YELLOW” and “Category III – YELLOW” respectively.

#### **Chapter 5.3**

- Note 2           The modification does not apply to the English text.

#### **Chapter 7.1**

- 7.1.7.3.2 (b) (i)       The modification does not apply to the English text.
- 7.1.7.3.5           In the table, in the last line, in the second column, replace “< 50 °C” by “≤ 45 °C”.
- 7.1.7.4.8           The modification does not apply to the English text.

#### **Chapter 7.2**

- 7.2.4, V8           In the Note, in the second sentence, delete “latter”. The modification of the first sentence does not apply to the English text.

#### **Chapter 8.5**

- S4           In the Note, in the second sentence, delete “latter”. The modification of the first sentence does not apply to the English text.

**Annex**

The amendment to 2.2.51.1.3 should read:

2.2.51.1.3 At the end of the second sentence, add “or, for solid ammonium nitrate based fertilizers, Section 39 subject to the restrictions of 2.2.51.2.2, thirteenth indent”.

The amendment to 2.1.3.7 should read:

2.1.3.7 At the end, add: “For solid ammonium nitrate based fertilizers, see also 2.2.51.2.2, thirteenth and fourteenth indent and Manual of Tests and Criteria, Part III, Section 39.”.

---