Economic Commission for Europe
Inland Transport Committee
Working Party on the Transport of Dangerous Goods

European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)

Draft amendments to annexes A and B of ADR

Addendum

At its 100th session, the Working Party on the Transport of Dangerous Goods requested the secretariat to circulate an additional list of amendments for which the entry into force is scheduled for 1 January 2017 in the form of an addendum to document ECE/TRANS/WP.15/231, which the Chairperson will transmit to Contracting Parties through his Government for acceptance in accordance with the procedure set out in article 14 of ADR (see ECE/TRANS/WP.15/233, paragraph 49).

This document contains the requested additional list of amendments adopted by the Working Party at its 100th session.
Chapter 1.1

1.1.3.2 (a) At the end, add the following Note:

"NOTE 2: A container fitted with equipment for use during carriage, secured on a vehicle, is considered as an integral part of the vehicle and benefits from the same exemptions as regards the fuel necessary to operate the equipment.”.

Number existing Note (see ECE/TRANS/WP.15/231/Corr.1) as Note 1.

1.1.3.3 (a) At the end, add the following Notes:

"NOTE 1: A container fitted with equipment for use during carriage, secured on a vehicle, is considered as an integral part of the vehicle and benefits from the same exemptions as regards the fuel necessary to operate the equipment.

NOTE 2: The total capacity of the tanks or cylinders, including those containing gaseous fuels, shall not exceed 54 000 MJ energy-equivalent (see NOTE 1 in 1.1.3.2 (a)).”.

1.1.3.10 (b) In the Note after subparagraph (i), replace “ISO 9001:2008” by “ISO 9001”.

Chapter 1.2

1.2.1 The amendment to the definition of “Aerosol or aerosol dispenser” does not apply to the English text.

1.2.1 The amendment to the definition of “Recycled plastics material” does not apply to the English text.

1.2.1 Amend the definition of “Maximum working pressure (gauge pressure)” as follows:

Amend the introductive sentence to read as follows: ““Maximum working pressure (gauge pressure)” means the highest of the following three pressures that may occur at the top of the tank in the operating position:”.

The second and third amendments do not apply to the English text.

After the definition, insert a Note 1 to read as follows:

“NOTE 1: Maximum working pressure is not applicable to gravity-discharge tanks according to 6.8.2.1.14 (a).”.

Renumber Notes 1 and 2 as Notes 2 and 3.

Chapter 1.4

1.4.2.2.1 In subparagraph (d), in the Note, after “4.2.4.4,”, insert: “4.3.2.3.7,”.

Chapter 1.6

1.6.1.30 Amend to read as follows:

“1.6.1.30 Labels which meet the requirements of 5.2.2.2.1.1 applicable up to 31 December 2014, may continue to be used until 30 June 2019.”.

1.6.1 Add the following transitional measures:

“1.6.1.37 (Reserved)”. 
1.6.1.43 Vehicles registered or brought into service before 1 July 2017, as defined in special provisions 240, 385 and 669 of Chapter 3.3, and their equipment intended for use during carriage, which conform to the requirements of ADR applicable until 31 December 2016 but containing lithium cells and batteries which do not conform to the requirement of 2.2.9.1.7 may continue to be carried as a load in accordance with the requirements of special provision 666 of Chapter 3.3.”.

1.6.3 Add the following transitional measure:

“1.6.3.46 Fixed tanks (tank-vehicles) and demountable tanks constructed before 1 July 2017 in accordance with the requirements in force up to 31 December 2016 but which do not however conform to the requirements of 6.8.2.1.23 applicable as from 1 January 2017 may still be used.”.

1.6.4 Add the following transitional measure:

“1.6.4.48 Tank-containers constructed before 1 July 2017 in accordance with the requirements in force up to 31 December 2016 but which do not however conform to the requirements of 6.8.2.1.23 applicable as from 1 January 2017 may still be used.”.

Chapter 1.8

1.8.6.2.3 The amendment does not apply to the English text.

Chapter 2.1

2.1.1.2 The amendment does not apply to the English text.
2.1.4.2 (e) The amendment does not apply to the English text.

Chapter 2.2

2.2.1.1.5 The amendment does not apply to the English text.
2.2.1.4 The amendments do not apply to the English text.
2.2.2.1.7 (c) and (d) The amendment does not apply to the English text.
2.2.2.3 In the table for “Other articles containing gas under pressure”, for 6F, add the following new rows:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3529</td>
<td>ENGINE, INTERNAL COMBUSTION, FLAMMABLE GAS POWERED</td>
</tr>
<tr>
<td>3529</td>
<td>ENGINE, FUEL CELL, FLAMMABLE GAS POWERED</td>
</tr>
<tr>
<td>3529</td>
<td>MACHINERY, INTERNAL COMBUSTION, FLAMMABLE GAS POWERED</td>
</tr>
<tr>
<td>3529</td>
<td>MACHINERY, FUEL CELL, FLAMMABLE GAS POWERED</td>
</tr>
</tbody>
</table>

2.2.3.3 For “F3 articles”, at the end add the new following entries:

“3528 ENGINE, INTERNAL COMBUSTION, FLAMMABLE LIQUID POWERED or
3528 ENGINE, FUEL CELL, FLAMMABLE LIQUID POWERED or
3528 MACHINERY, INTERNAL COMBUSTION, FLAMMABLE LIQUID POWERED or
3528 MACHINERY, FUEL CELL, FLAMMABLE LIQUID POWERED”.
2.2.43.1.2 The amendment does not apply to the English text.

2.2.52.1.6 In the third sentence, replace “in one packaging” by “in one package”.

2.2.61.1.14 Amend to read as follows:

“2.2.61.1.14 Substances, solutions and mixtures, with the exception of substances and preparations used as pesticides, which are not classified as acute toxic category 1, 2 or 3 according to Regulation (EC) No 1272/2008\(^3\), may be considered as substances not belonging to class 6.1.”.


Existing footnotes 3 and 4 are deleted. Renumber subsequent footnotes accordingly.

2.2.7.2.4.1.5 (b) Replace “2.2.7.2.4.5.1” by “2.2.7.2.4.5.2”.

2.2.8.1.9 Amend to read as follows:

“2.2.8.1.9 Substances, solutions and mixtures, which are not classified as corrosive to skin or metal of category 1 according to Regulation (EC) No 1272/2008\(^3\) may be considered as substances not belonging to Class 8.”.

The note remains unchanged.


2.2.9.1.2 For subdivision M11, add “and articles” after “substances”.

2.2.9.1.10.2.6 (c) Delete “or mixture”.

2.2.9.1.10.5 In the heading and in subparagraph (a), renumber the reference to the footnote after “1272/2008/EC” as 3. Footnote 3 reads as follows:


At the end of paragraph (a), delete: “or, if still relevant according to the said Regulation, risk phrase(s) R50, R50/53 or R51/53 according to the Directives 67/548/EEC\(^3\) or 1999/45/EC\(^4\)”.

Amend paragraph (b) to read as follows: “(b) May be regarded as not being an environmentally hazardous substance (aquatic environment) if it does not have to be assigned such a category according to the said Regulation.”.

2.2.9.3 For “M11”, replace “substances or articles” by “substances and articles”. In the right box, in the introductory sentence add “and articles” after “only substances”. Add the following new entries:
“3530 ENGINE, INTERNAL COMBUSTION or
3530 MACHINERY, INTERNAL COMBUSTION”.

Chapter 2.3

2.3.1.4 Replace “iron plate” by “lead plate”.

Chapter 3.2, table A

For UN numbers 1133, 1139, 1169, 1197, 1210, 1263, 1266, 1286, 1287, 1306, 1866, 1993 and 1999, for each first entry for packing group III, in column (6), delete: “640E”.

For UN Nos. 1361 and 3088, packing group III, in column (6) insert “665”.

For UN Nos. 3166, 3171, 3528, 3529 and 3530, in column (6), insert: “669”.

The amendment for UN No. 2022 does not apply to the English version of the text.

For UN No. 3528, in column (3b), insert: “F3”.

For UN No. 3529, in column (3b), insert: “6F”.

For UN No. 3530, in column (3b), insert: “M11”.

Chapter 3.3

Special provision 342 (b) The amendment does not apply to the English text.

Special provision 369 Replace “2.2.7.2.3.6” by “2.2.7.2.3.5”.

Special provision 373 (a) In the Note after subparagraph (iii), replace “ISO 9001:2008” by “ISO 9001”.

Special provision 376, at the end, add the following new sentence: “In this case the cells and batteries are assigned to transport category 0.”.

Special provision 528 Replace “articles of Class 4.1” by “substances of Class 4.1”.

Special provision 531 After “Class 4.1”, insert “(UN Nos. 2555, 2556 or 2557)”.

Special provision 545 The amendment does not apply to the English text.

Special provision 592 The amendment does not apply to the English text.

Special provision 636 (b) Amend the text before subparagraph (i) 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, not contained in equipment, collected and handed over for carriage for sorting, disposal or recycling; as well as

– lithium cells and batteries contained in equipment from private households collected and handed over for carriage for depollution, dismantling, recycling or disposal;
NOTE: “Equipment from private households” means equipment which comes from private households and equipment which comes from commercial, industrial, institutional and other sources which, because of its nature and quantity, is similar to that from private households. Equipment likely to be used by both private households and users other than private households shall in any event be considered to be equipment from private households.

are not subject to the other provisions of ADR including special provision 376 and paragraph 2.2.9.1.7, if they meet the following conditions:”.

Special provision 636 (b) Amend subparagraph (iii) to read as follows:

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

If equipment containing lithium cells or batteries is carried unpackaged or on pallets in accordance with packing instruction P 909 (3) of 4.1.4.1, this mark may alternatively be affixed to the external surface of the vehicles or containers.”.

Special provision 664 (e) Replace the last sentence by “In this case, the remark “additive device” shall be added to the transport document.”.

Add the following new special provisions:

“665 Unground hard coal, coke and anthracite, meeting the classification criteria of Class 4.2, packing group III, are not subject to the requirements of ADR.”.

“669 A trailer fitted with equipment, powered by a liquid or gaseous fuel or an electric energy storage and production system, that is intended for use during carriage operated by this trailer as a part of a transport unit, shall be assigned to UN numbers 3166 or 3171 and be subject to the same conditions as specified for these UN numbers, when carried as a load on a vehicle, provided that the total capacity of the tanks containing liquid fuel does not exceed 500 litres.”.

Chapter 4.1

4.1.3.4 Under “Boxes”, after “4B,”, insert: “4N,”.

4.1.4.1, Packing instruction P101 Replace “The State’s distinguishing sign for motor vehicles in international traffic” by “The distinguishing sign used on vehicles in international road traffic”.

Table note a reads as follows:

“a Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”.

4.1.4.1, Packing instruction P200 In paragraphs (12) and (13), at the end of subparagraph 1.1, add: “(for the definitions of Xb and IS bodies, see 6.2.3.6.1).”

4.1.4.1, Packing instruction P200, Table 3 Delete the line corresponding to UN 1790 HYDROFLUORIC ACID, solution, with more than 85% hydrofluoric acid.

4.1.4.1, Packing instruction 400 The amendment does not apply to the English text.

4.1.4.1, Packing instruction P603 (former P805), under “Special packing provision”, delete “and 6.4.11.2”.

4.1.4.1, Packing instruction P603 (former P805), under “Special packing provision”, delete “and 6.4.11.2”.
4.1.4.1, Packing instruction P620  The amendment to the introductory sentence of additional requirement 2 does not apply to the English text. In sub-paragraph (c) of additional requirement 2, in the third sentence, replace “Provisions for the consignment” by “Provisions for the carriage”.

4.1.4.1, Packing instruction P906 (2)  In the introductive sentence and in paragraph (b), replace “devices” by “articles” (three times).

4.1.4.2, Packing instruction IBC02  The amendment does not apply to the English text.

4.1.4.2, Packing instruction IBC520  The amendment does not apply to the English text.

4.1.5.17  Replace “(1A1, 1A2, 1B1, 1B2, 4A, 4B and metal receptacles)” by “(1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 4A, 4B, 4N and metal receptacles)”.

4.1.10.4  Delete MP 16 and insert:

“MP 16 (Reserved);”.

**Chapter 4.2**

4.2.5.3, TP7, TP24 and TP36  The amendments do not apply to the English text.

**Chapter 4.3**

4.3.2.1.7  In the second paragraph, after “shall be transferred”, insert: “without delay”.

4.3.2.3  Insert a new 4.3.2.3.7 to read as follows:

“4.3.2.3.7  Fixed tanks (tank-vehicles), demountable tanks, battery-vehicles, tank-containers, tank swap bodies and MEGCs may not be filled or offered for carriage after the deadline for the test or inspection required by 6.8.2.4.2, 6.8.3.4.6 and 6.8.3.4.10 has expired. However, fixed tanks (tank-vehicles), demountable tanks, battery-vehicles, tank-containers, tank swap bodies and MEGCs filled prior to the date of expiry of the last periodic inspection may be carried:

(a) for a period not to exceed one month after the expiry of these deadlines;

(b) unless otherwise approved by the competent authority, for a period not to exceed three months after the expiry of these deadlines in order to allow the return of dangerous goods for proper disposal or recycling. Reference to this exemption shall be mentioned in the transport document.”.

4.3.3.2.5  The amendments for UN Nos. 1028 and 1060 do not apply to the English text.

**Chapter 5.1**

5.1.5.5  Amend the Table as follows:

Add the following new rows:
In the first row (Calculation of unlisted $A_1$ and $A_2$ values), in the last column, replace “---” by “2.2.7.2.2.2 (a), 5.1.5.2.1 (d)”.

In the tenth row (Low dispersible radioactive material), in the last column, replace “6.4.22.3” by “6.4.22.5”.

In the thirteenth row (Approved packages designs subjected to transitional measures), in the last column, delete “1.6.6.1” and insert “, 6.4.22.9” at the end.

**Chapter 5.2**

5.2.1.7.4 (c) Replace “with the international vehicle registration code (VRI-Code) \(^2\)” by “with the distinguishing sign used on vehicles in international road traffic \(^2\)”. Amend footnote 2 to read as follows:

"\(^2\) Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”.

5.2.2.2.2 Amend the title of label No. 4.1 to read as follows: “CLASS 4.1 HAZARD Flammable solids, self-reactive substances, polymerizing substances and solid desensitized explosives”.

**Chapter 5.4**

5.4.1.1.11 Amend to read as follows:

“5.4.1.1.11 Special provisions for the carriage of IBCs, tanks, battery-vehicles, portable tanks and MEGCs after the date of expiry of the last periodic test or inspection

For carriage in accordance with 4.1.2.2 (b), 4.3.2.3.7 (b), 6.7.2.19.6 (b), 6.7.3.15.6 (b) or 6.7.4.14.6 (b), a statement to this effect shall be included in the transport document, as follows:

“CARRIAGE IN ACCORDANCE WITH 4.1.2.2 (b)”,
“CARRIAGE IN ACCORDANCE WITH 4.3.2.3.7 (b)”,
“CARRIAGE IN ACCORDANCE WITH 6.7.2.19.6 (b)”,
“CARRIAGE IN ACCORDANCE WITH 6.7.3.15.6 (b)”; or
“CARRIAGE IN ACCORDANCE WITH 6.7.4.14.6 (b)” as appropriate.

5.4.1.2.1 In Note 2, replace “indicated by the distinguishing sign for motor vehicles in international traffic (XX)\(^3\)” by “indicated by the distinguishing sign used on vehicles in international road traffic (XX)\(^3\)”. Amend footnote 3 to read as follows:

“\(^3\) Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”.
5.4.2 Amend the title to read as follows: “Container/vehicle packing certificate”.

After the Note, add the following new paragraph: “If the carriage of dangerous goods in a vehicle precedes a voyage by sea, a "container/vehicle packing certificate" conforming to section 5.4.2 of the IMDG Code\(^5\)\(^6\) may be provided with the transport document.”.

5.4.2 At the end of footnote 5, replace “("IMO/ILO/UNECE Guidelines for Packing of Cargo Transport Units (CTUs)")” by “("IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units (CTU Code)")”.

5.4.2 In footnote 6:
- At the beginning, after “IMDG Code”, add «(Amendment 38-16)»;
- In 2, replace “7.2.2.3” by “7.3.4.1”;
- In 6, replace “in conformity with 7.4.6” by “in accordance with 7.1.2”;
- In the Note after 5.4.2.1 of the IMDG code, replace “tanks” by “portable tanks”;
- In 5.4.2.4 of the IMDG Code, replace “dangerous goods transport document” by “container/vehicle packing certificate”.

5.4.3.4 In the model of the instructions in writing, amend the description of the hazards of label 4.1 in column 1 to read as follows: “Flammable solids, self-reactive substances, polymerizing substances and solid desensitized explosives”.

5.4.3 Add the following new paragraph to section:

“5.4.3.5 Contracting Parties shall provide the UNECE secretariat with the official translation of the instructions in writing in their national language(s), in accordance with this section. The UNECE secretariat shall make the national versions of the instructions in writing that it has received available to all Contracting Parties.”.

Chapter 6.1

6.1.1.1 e) and 6.1.2.4 The amendments do not apply to the English text.

6.1.3.1 (a) (i) Delete footnote 2 and renumber following footnotes accordingly.

6.1.3.1 (f) Replace “indicated by the distinguishing sign for motor vehicles in international traffic\(^3\)\(^n\) by “indicated by the distinguishing sign used on vehicles in international road traffic\(^2\)\(^b\)”.

Amend footnote 2 (previously 3) to read as follows: \(^{a2}\) Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”

6.1.3.8 (h) Replace “indicated by the distinguishing sign for motor vehicles in international traffic\(^3\)\(^n\) by “indicated by the distinguishing sign used on vehicles in international road traffic\(^2\)\(^b\)”.

Amend footnote 2 (previously 3) to read as follows: \(^{a2}\) Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”
6.1.4.2.2, 6.1.4.3.2, 6.1.4.4.2 and 6.1.4.5.4  
The amendments do not apply to the English text.

6.1.5.5.4 (b)  
The amendment does not apply to the English text.

Chapter 6.2

6.2.1.3.6.4.4  
The amendment does not apply to the English text.

6.2.2  
The Note at the end becomes Note 1. Add a new Note 2 to read as follows:

“NOTE 2: When EN ISO versions of the following ISO standards are available, they may be used to fulfil the requirements of 6.2.2.1, 6.2.2.2, 6.2.2.3 and 6.2.2.4.”.

6.2.2.3  
For standard “ISO 10297:2006”, in column (2), delete the Note.

6.2.2.7.2 (a) and 6.2.2.9.2 (a)  
Delete footnote 2 and renumber following footnotes accordingly.

6.2.2.7.2 (c)  
Replace “indicated by the distinguishing signs for motor vehicles in international traffic” by “indicated by the distinguishing sign used on vehicles in international road traffic”.

Amend footnote 2 (previously 3) to read as follows: "2  Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”.

6.2.2.7.4 (n)  
Replace “indicated by the distinguishing signs for motor vehicles in international traffic” by “indicated by the distinguishing sign used on vehicles in international road traffic”.

Amend footnote 2 (previously 3) to read as follows: "2  Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”.

6.2.2.7.7 (a)  
Replace “indicated by the distinguishing signs of motor vehicles in international traffic” by “indicated by the distinguishing sign used on vehicles in international road traffic”.

Amend footnote 2 (previously 3) to read as follows: "2  Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”.

6.2.2.9.2 (c) and (h)  
Replace “indicated by the distinguishing signs of motor vehicles in international traffic” by “indicated by the distinguishing sign used on vehicles in international road traffic”.

Amend footnote 2 (previously 3) to read as follows: "2  Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”.

6.2.2.9.4 (a)  
Replace “indicated by the distinguishing sign of motor vehicles in international traffic” by “indicated by the distinguishing sign used on vehicles in international road traffic”.

10
Amend footnote 2 (previously 3) to read as follows: "Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”.

6.2.2.10.2 The amendment does not apply to the English text.

6.2.3.5.1 The Note becomes Note 1. Add the following Notes 2 and 3:

**NOTE 2:** For seamless steel cylinders and tubes the check of 6.2.1.6.1 (b) and the hydraulic pressure test of 6.2.1.6.1 (d) may be replaced by a procedure conforming to EN ISO 16148:2016 "Gas cylinders – Refillable seamless steel gas cylinders and tubes – Acoustic emission examination (AT) and follow-up ultrasonic examination (UT) for periodic inspection and testing”.

**NOTE 3:** The check of 6.2.1.6.1 (b) and the hydraulic pressure test of 6.2.1.6.1 (d) may be replaced by ultrasonic examination carried out in accordance with EN 1802:2002 for seamless aluminium alloy gas cylinders and in accordance with EN 1968:2002 + A1:2005 for seamless steel gas cylinders.”.

6.2.3.9.7.3 (a) Replace “indicated by the distinguishing sign of motor vehicles in international traffic” by “indicated by the distinguishing sign used on vehicles in international road traffic”.

Amend footnote 2 (previously 3) to read as follows: "Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”.

6.2.4.1 Amend the Table, under “for design and construction”, as follows:

- For standard “EN 12205:2001”, in column (4), replace “Until further notice” by “Between 1 January 2005 and 31 December 2017”.
- After standard “EN 12205:2001”, insert the following new row:

<table>
<thead>
<tr>
<th>EN ISO 11118:2015</th>
<th>Gas cylinders – Non-refillable metallic gas cylinders – Specification and test methods</th>
<th>6.2.3.1, 6.2.3.3 and 6.2.3.4</th>
<th>Until further notice</th>
</tr>
</thead>
</table>


6.2.4.1. Amend the Table, under "for closures", as follows:

- For standard "EN ISO 10297:2006", in column (4), replace "Until further notice" by "Between 1 January 2009 and 31 December 2018”.
- After standard "EN ISO 10297:2006", insert the following new row:

<table>
<thead>
<tr>
<th>EN ISO 10297:2014</th>
<th>Gas cylinders – Cylinder valves – Specification and type testing (ISO/DIS 10297:2012)</th>
<th>6.2.3.1 and 6.2.3.3</th>
<th>Until further notice</th>
</tr>
</thead>
</table>

- For standard “EN 13340:2001”, in column (4), replace “Until further notice” by “Between 1 January 2011 and 31 December 2017”.
- For standard “EN 13340:2001”, in column (5), insert: “31 December 2018”.
- Add the following new row at the end:
6.2.4.2 Amend the Table as follows:

- For standard “EN ISO 10462:2013”, in column (3), replace “Mandatorily from 1 January 2017” by “Until further notice”.
- For standard “EN ISO 11623:2002 (except clause 4)”, in column (3), replace “Until further notice” by “Until 31 December 2018”.
- After standard “EN ISO 11623:2002 (except clause 4)”, insert the following new row:

<table>
<thead>
<tr>
<th>EN ISO 11623:2015</th>
<th>Gas cylinders – Composite construction – Periodic inspection and testing</th>
<th>Mandatorily from 1 January 2019</th>
</tr>
</thead>
</table>
- After standard “EN 1440:2008 + A1:2012 (except Annexes G and H)”, insert the following new rows:

<table>
<thead>
<tr>
<th>EN 1440:2016 (except Annex C)</th>
<th>LPG equipment and accessories – Transportable refillable traditional welded and brazed steel Liquefied Petroleum Gas (LPG) cylinders – Periodic inspection</th>
<th>Mandatorily from 1 January 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 16728:2016 (except clause 3.5, Annex F and Annex G)</td>
<td>LPG equipment and accessories – Transportable refillable LPG cylinders other than traditional welded and brazed steel cylinders – Periodic inspection</td>
<td>Mandatorily from 1 January 2019</td>
</tr>
</tbody>
</table>

Chapter 6.3

6.3.1.1 The amendment does not apply to the English text.

6.3.4.2 (a) Delete footnote 1 and renumber following footnote as footnote 1.

6.3.4.2 (e) Replace “indicated by the distinguishing sign for motor vehicles in international traffic” by “indicated by the distinguishing sign used on vehicles in international road traffic”.

Amend footnote 1 (previously 2) to read as follows: “Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”.

6.3.5.1.6 (a) The amendment does not apply to the English text.

Chapter 6.4

6.4.5.4.4 c) The amendment does not apply to the English text.

6.4.11.8 (a) and 6.4.21.2 The amendments do not apply to the English text.

6.4.23.11 In paragraph (a), replace “the international vehicle registration identification code” by “the distinguishing sign used on vehicles in international road traffic”.
Amend footnote 1 to read as follows: \( ^{1*} \) *Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.*

**Chapter 6.5**

6.5.1.4.4 The amendment does not apply to the English text.

6.5.2.1.1 (a) Delete footnote 1 and renumber following footnote as footnote 1.

6.5.2.1.1 (e) Replace “indicated by the distinguishing sign for motor vehicles in international traffic\(^2\)” by “indicated by the distinguishing sign used on vehicles in international road traffic\(^1\)”.

Amend footnote 1 (previously 2) to read as follows: \( ^{1*} \) *Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.*

6.5.5, 6.5.5.1.7, 6.5.5.4.17, 6.5.5.5.3, 6.5.6.2.2, 6.5.6.3.3, 6.5.6.3.7 and 6.5.6.9.2 (c) The amendments do not apply to the English text.

**Chapter 6.6**

6.6.3.1 (a) Delete footnote 1 and renumber following footnote as footnote 1.

6.6.3.1 (e) Replace “indicated by the distinguishing sign for motor vehicles in international traffic\(^2\)” by “indicated by the distinguishing sign used on vehicles in international road traffic\(^1\)”.

Amend footnote 1 (previously 2) to read as follows: \( ^{1*} \) *Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.*

6.6.4 and 6.6.5.1.7 The amendments do not apply to the English text.

**Chapter 6.7**

6.7.2.1, 6.7.3.1, 6.7.4.1, 6.7.2.2.1, 6.7.2.2.7, 6.7.2.4.1 (b), 6.7.2.6.3 c), 6.7.2.10.1, 6.7.2.15.1 The amendments do not apply to the English text.

6.7.2.18.1 In the fourth sentence, replace “i.e. the distinguishing sign for use in international traffic as prescribed by the Convention on Road Traffic, Vienna 1968” by “indicated by the distinguishing sign used on vehicles in international road traffic\(^2\)”.

Footnote 2 reads as follows: \( ^{2*} \) *Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.*

6.7.2.19.9, 6.7.3.15.9, 6.7.4.14.10, 6.7.2.19.10, 6.7.2.20.1 and Figure 6.7.2.20.1 The amendments do not apply to the English text.

6.7.2.20.1 (c), 6.7.3.16.1 (c), 6.7.4.15.1 (c) and 6.7.5.13.1 (c) Delete footnote 2.

6.7.3.1, 6.7.3.2.1, 6.7.3.2.13, 6.7.3.4.1 (b), 6.7.3.11.1 The amendments do not apply to the English text.
6.7.3.14.1 In the fourth sentence, replace “i.e. the distinguishing sign for use in international traffic, as prescribed by the Convention on Road Traffic, Vienna 1968” by “indicated by the distinguishing sign used on vehicles in international road traffic”.

Footnote 2 reads as follows: Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”.

6.7.3.15.3 The amendment does not apply to the English text.
6.7.3.15.10 The amendment does not apply to the English text.
6.7.3.16.1 and Figure 6.7.3.16.1 The amendments do not apply to the English text.
6.7.4.1 The amendment does not apply to the English text.
6.7.4.2.1 The amendment does not apply to the English text.
6.7.4.4.1 (b) The amendment does not apply to the English text.
6.7.4.5.12 The amendment does not apply to the English text.
6.7.4.10.1 The amendment does not apply to the English text.
6.7.4.13.1 In the fourth sentence, replace “i.e. the distinguishing sign for use in international traffic as presented by the Convention on Road Traffic, Vienna 1968” by “indicated by the distinguishing sign for use in international road traffic”.

Footnote 2 reads as follows: Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”.

6.7.4.14.8 and 6.7.4.14.9 The amendments do not apply to the English text.
6.7.4.14.11 The amendment does not apply to the English text.
6.7.4.15.1 and Figure 6.7.4.15.1 The amendments do not apply to the English text.
6.7.5.2.1 The amendment does not apply to the English text.
6.7.5.3.2 The amendment does not apply to the English text.
6.7.5.3.3 The amendment does not apply to the English text.
6.7.5.8.1 The amendment does not apply to the English text.
6.7.5.11.1 In the fourth sentence, replace “i.e. the distinguishing sign for use in international traffic, as prescribed by the Convention on Road Traffic, Vienna 1968” by “indicated by the distinguishing sign used on vehicles in international road traffic”.

Footnote 2 reads as follows: Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”.

Chapter 6.8

6.8.2.1.23 Amend to read as follows:

“6.8.2.1.23 The ability of the manufacturer to perform welding operations shall be verified and confirmed by either the competent authority or by the body designated by this authority, which issues the type approval. A weld quality assurance system shall be operated by the manufacturer. Welding shall be performed by qualified welders using a qualified welding process whose effectiveness (including any heat treatments required) has
been demonstrated by tests. Non-destructive tests shall be carried out by radiography or by ultrasound and shall confirm that the quality of the welding is appropriate to the stresses.

The following checks shall be carried out for welds made by each welding process used by the manufacturer in accordance with the value of the coefficient $\lambda$ used in determining the thickness of the shell in 6.8.2.17:

$\lambda = 0.8$: All weld beads shall so far as possible be inspected visually on both faces and shall be subjected to non-destructive checks. The non-destructive checks shall include all weld “Tee” junctions and all inserts used to avoid welds crossing. The total length of welds to be examined shall not be less than:

- 10% of the length of all the longitudinal welds,
- 10% of the length of all the circumferential welds,
- 10% of the length of all the circumferential welds in the tank ends, and
- 10% of the length of all the radial welds in the tank ends.

$\lambda = 0.9$: All weld beads shall so far as possible be inspected visually on both faces and shall be subjected to non-destructive checks. The non-destructive checks shall include all connections, inserts used to avoid welds crossing, and welds for the assembly of large-diameter items of equipment. The total length of welds to be examined shall not be less than:

- 100% of the length of all the longitudinal welds,
- 25% of the length of all the circumferential welds,
- 25% of the length of all the circumferential welds in the tank ends, and
- 25% of the length of all the radial welds in the tank ends.

$\lambda = 1$: All weld beads throughout their length shall be subjected to non-destructive checks and shall so far as possible be inspected visually on both faces. A weld test-piece shall be taken.

In the cases of either $\lambda = 0.8$ or $\lambda = 0.9$, when the presence of an unacceptable defect is detected in a portion of a weld, the non-destructive checks shall be extended to a portion of equal length on both sides of the portion that contains the defect. If the non-destructive checks detect an additional defect that is unacceptable, non-destructive checks shall be extended to all remaining welds of the same type of welding process.

Where either the competent authority or a body designated by this authority has doubts regarding the quality of welds, including the welds made to repair any defects revealed by the non-destructive checks, it may require additional checks.”

6.8.2.3.1 In the second indent on the right hand column, replace “distinguishing sign” by “distinguishing sign used on vehicles in international road traffic”. Amend footnote 8 to read as follows: “Distinguishing sign of the State of registration used on motor vehicles and trailers in international road traffic, e.g. in accordance with the Geneva Convention on Road Traffic of 1949 or the Vienna Convention on Road Traffic of 1968.”.

6.8.2.4.1 Amend the fourth paragraph from below in the left-hand column to read:

“The test shall be carried out on each compartment at a pressure at least equal to:
6.8.2.4.3 Amend the penultimate paragraph of 6.8.2.4.3 to read as follows:

“For tanks equipped with breather devices and a safety device to prevent the contents spilling out if the tank overturns, the leakproofness test shall be carried out at a pressure at least equal to the static pressure of the densest substance to be carried, the static pressure of water or 20 kPa (0.2 bar) whichever is the highest.”.

6.8.2.6.1 Amend the table as follows:

<table>
<thead>
<tr>
<th>EN 14025:2013+ A1:2016 (except Annex B)</th>
<th>Tanks for the transport of dangerous goods – Metallic pressure tanks – Design and construction</th>
<th>6.8.2.1 and 6.8.3.1</th>
<th>Until further notice</th>
</tr>
</thead>
</table>

6.8.3.1.5 Amend the first sentence to read:

“Elements and their fastenings of battery vehicles and the frame of MEGCs shall be capable of absorbing under the maximum permissible load the forces defined in 6.8.2.1.2.”.

6.8.3.2.9, 6.8.3.4.10 and 6.8.3.5.4 The amendments do not apply to the English text.

6.8.4, special provision TT11 In the paragraph after the Table, amend “EN 14025:2013” to read: “EN 14025:2013 + A1:2016”.

Chapter 7.1

7.1.3 At the beginning, after “portable tanks”, insert “, MEGCs”. At the end, after “portable tank”, insert “, MEGC”.

Chapter 8.2

8.2.2.7.1.5 Amend to read as follows: “Each competent authority shall supervise the modalities of the examination; including, if necessary, the infrastructure and organisation of electronic examinations in accordance with 8.2.2.7.1.8, if these are to be carried out.”.

8.2.2.7.1.6 After 8.2.2.7.1.6, add a new 8.2.2.7.1.7 and a new 8.2.2.7.1.8 to read as follows:

“8.2.2.7.1.7 Every examination shall be invigilated. Any manipulation and deception shall be ruled out as far as possible. Authentication of the candidate shall be ensured. All examination documents shall be recorded and kept as a print-out or electronically as a file.”
8.2.7.1.8 Written examinations may be performed, in whole or in part, as electronic examinations, where the answers are recorded and evaluated using electronic data processing (EDP) processes, provided the following conditions are met:

(a) The hardware and software shall be checked and accepted by the competent authority;

(b) Proper technical functioning shall be ensured. Arrangements as to whether and how the examination can be continued shall be made for a failure of the devices and applications. No aids shall be available on the input devices (e.g. electronic search function), the equipment provided shall not allow the candidates to communicate with any other device during the examination;

(c) Final inputs of each candidate shall be logged. The determination of the results shall be transparent;

(d) Electronic media may be used only if provided by the examining body. There shall be no means of a candidate introducing further data to the electronic media provided; the candidate may only answer the questions posed.”.