



# Economic and Social Council

Distr.: General  
16 May 2024  
English  
Original: English and French

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## Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods

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

#### Draft amendments to annexes A and B of ADR

##### Addendum

At its 115th 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 2025 in the form of an addendum to document ECE/TRANS/WP.15/265, 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.15/267, paragraph 72).

This document contains the requested additional list of amendments adopted by the Working Party at its 115th session.



## Chapter 1.1

- 1.1.3.7 The amendment to sub-paragraph (b) in the French version does not apply to the English text.

## Chapter 1.2

- 1.2.1 The amendment in the French version does not apply to the English text.
- 1.2.2.1 In the table, in the row for “Mass”, in the third column, replace “t (ton)” by “t (tonne)”.

## Chapter 1.4

- 1.4.2.1.1 At the end of sub-paragraph (e), replace the full stop by a semicolon.  
Add the following new sub-paragraph (f):
- “(f) In the case of tank-containers and portable tanks carrying refrigerated liquefied gases ensure that the actual holding time is determined if applicable or, in the case of empty, uncleaned tank-containers and portable tanks, ensure that the pressure is sufficiently reduced.”

## Chapter 1.6

- 1.6.1.51 In the paragraph after the three indents, replace “30 June 2025” by “30 June 2027”.
- 1.6.4 Add the following new transitional measure:
- “1.6.4.66 Portable tanks constructed before 1 January 2027 in accordance with the requirements in force up to 31 December 2024, but which do not, however, conform to the requirements of 6.7.4.15.1 (i) (iv) applicable as from 1 January 2025 may continue to be used.”
- 1.6.5.4 Replace “(Reserved)” by “As regards the construction of AT vehicles, the requirements of Part 9 in force up to 31 December 2024 may be applied until 31 December 2026.”.
- 1.6.5 Add the following new transitional measures:
- “1.6.5.26 Vehicles first registered (or which entered into service if registration is not mandatory) before 1 January 2027, approved as AT vehicle not in compliance with the provisions of 9.2.4.2 concerning fuel tanks may continue to be used.”
- “1.6.5.27 Vehicles first registered (or which entered into service if registration is not mandatory) before 1 January 2027, approved as AT vehicle not in compliance with the provisions of 9.2.4.4.2 concerning the evaluation of the rechargeable electrical energy storage system may continue to be used.”
- “1.6.5.28 Vehicles first registered (or which entered into service if registration is not mandatory) before 1 January 2027, approved as AT vehicles, not in compliance with the provisions of 9.2.4.3.1 concerning engines, may continue to be used.”

## Chapter 1.8

- 1.8.6.2.1 Amend the last paragraph to read:
- “When the competent authority performs the tasks of the inspection body itself, the competent authority shall comply with the provisions of 1.8.6.3. However, when a competent authority designates an inspection body to act as the competent authority the designated body

shall be accredited according to the standard EN ISO/IEC 17020:2012 (except clause 8.1.3) type A.”

- 1.8.6.3.1 Amend the last sentence to read: “The requirements above are deemed to be met in the case of accreditation according to the standard EN ISO/IEC 17020:2012 (except clause 8.1.3).”

## Chapter 4.1

- 4.1.4.1, P200 Throughout the packing instruction, including tables 1 to 3, place the footnotes directly below the packing instruction, on those pages on which they appear and renumber them sequentially, as (a) to (i).

In (5) (b), under the first and second formulas, after “where”, add a colon and start a new line after that.

In (5) (c), under the formula, after “where”, add a colon and start a new line after that.

In (10) z, under the first formula, replace “in which” by “where:” and start a new line after that. Under the second formula, after “where”, add a colon and start a new line after that.

In (10) ab, renumber (i) to (iii) as (a) to (c).

In (10) ad, renumber (i) and (ii) as (a) and (b) and renumber the list with dashes as (i) and (ii).

In (11), at the end of the table, delete the row for standard “EN 14794:2005”.

In (13) 2.2, renumber the list with bullets as (a) to (e).

In (13) 2.3, renumber the list with bullets as (a) to (e) and renumber the list with dashes as (i) and (ii).

Below table 2, in the graph in the footnote related to the filling ratio for UN No. 1965, as amended by ECE/TRANS/WP.15/265, insert the following new note:

**“NOTE:** *The graph above can be used to determine the correct filling ratios for the mixtures listed in 2.2.2.3.”*

- 4.1.6.15 In table 4.1.6.15.1, in the first line for “4.1.6.8 Valves with inherent protection”, in the second column, after “EN ISO 10297:2014 + A1:2017” add “or clause 5.4.2 of EN ISO 10297:2024”.

## Chapter 4.2

After the heading of Chapter 4.2, in Note 2 after “*which is not a Contracting Party to ADR*”, insert “*or approved in accordance with Chapter 6.7 of the IMDG Code*”.

- 4.2.3.7.1 At the end, after the subparagraphs, add a new paragraph to read:

“The calculation of the actual holding time may be waived when the whole journey takes place by road only, without trans-shipment onto another vehicle and without intermediate temporary storage. When the calculation of the actual holding time is waived the provisions of 4.2.3.7.2, 4.2.3.7.3 and 4.2.3.8 (e) and (f) shall not apply.”

## Chapter 4.3

- 4.3.3.5 In the right hand column, at the end, before the sentence to be added in accordance with document ECE/TRANS/WP.15/265, add the following paragraph:

“The calculation of the actual holding time may be waived when the whole journey takes place by road only, without trans-shipment onto another vehicle and without intermediate temporary storage. When the calculation of the actual holding time is waived the provisions of 4.3.3.6 (e), (f) and (g) shall not apply.”

### Chapter 5.3

5.3.2.1.1 At the end of the second paragraph, add “or to UN No. 3475, as appropriate”.

5.3.2.1.3 Replace “1203 or 1223” by “1203, 1223 or 3475” and amend the end of the paragraph to read as follows:

“... and the UN number prescribed:

- (a) For UN No. 3475; or
- (b) For the most hazardous substance carried, i.e. the substance with the lowest flash-point in the absence of any substance assigned to UN No. 3475.”

### Chapter 5.4

5.4.1.1.3.1 Amend the last paragraph to read:

“If the provision for waste as set out in 2.1.3.5.5 is applied, the technical name, as prescribed in Chapter 3.3, special provision 274, need not be added.”

5.4.1.2.2 In sub-paragraph (d), at the end, add the following paragraph:

“When the calculation of the actual holding time is waived in accordance with 4.2.3.7.1 or 4.3.3.5, this provision shall not apply;”

### Chapter 5.5

5.5.4 The amendment in the French version does not apply to the English text.

5.5.4.1 The amendment in the French version does not apply to the English text.

### Chapter 6.2

6.2.4.1 In the table, under “*for design and construction of pressure receptacles or pressure receptacle shells*”, amend the following:

- In the row for EN 1964-3:2000, in column (4), replace “Until further notice” by “Until 31 December 2026”.
- In the row for EN 13322-1:2003 + A1:2006, in column (4), replace “Until further notice” by “Between 1 January 2007 and 31 December 2026”.
- After the row for EN 13322-1:2003 + A1:2006, insert the following new row:

(1)	(2)	(3)	(4)	(5)
EN 13322-1:2024	Transportable gas cylinders – Refillable welded steel gas cylinders – Design and construction – Part 1: Welded steel	6.2.3.1 and 6.2.3.4	Until further notice	

- In the table, under “*for design and construction of closures*”, In the row for EN ISO 10297:2014 + A1:2017, in column (4), replace “Until further notice” by “Between 1 January 2019 and 31 December 2026”.
- After the row for EN ISO 10297:2014 +A1:2017, insert the following new row:

(1)	(2)	(3)	(4)	(5)
EN ISO 10297:2024	Gas cylinders – Cylinder valves – Specification and type testing	6.2.3.1 and 6.2.3.3	Until further notice	

## Chapter 6.8

- 6.8.2.3.2 In the Note, after “*Annex B of EN 12972:2018*”, add “+ A1:2024”.
- 6.8.2.6.1 In the table, under “*For equipment*”, for standards EN 14432:2014 and EN 14433:2014, in column (3), replace “6.8.2.3.2” by “6.8.2.3.1”.
- 6.8.2.6.2 In the table, amend the following:
- In the row for EN 12972:2018, in column (4), replace “Until further notice” by “Until 31 December 2026”.
  - After the row for EN 12972:2018, insert the following new row:

(1)	(2)	(3)	(4)
EN 12972:2018 + A1:2024	Tanks for transport of dangerous goods – Testing, inspection and marking of metallic tanks	6.8.2.1.23, 6.8.2.3, 6.8.2.4 and 6.8.3.4	Until further notice

- 6.8.3.2.9.4 Amend the first sentence to read “Each safety valve inlet shall be situated on top of the shell as close as practicable to the top generating line.”
- 6.8.4 In (d), TT8, amend the last paragraph to read:  
“Such magnetic particle inspections shall be performed in accordance with EN 12972:2018 + A1:2024.”
- In (d), TT11, second indent, before “EN ISO 23278:2015”, add “level 2X of”.
- In (d), TT11, amend the paragraph after the fourth indent, including the indent of this paragraph to read:  
“Non-destructive checks shall be performed by personnel in accordance with EN 12972:2018 + A1:2024 or EN 14334:2014.”

## Chapter 6.11

- 6.11.4.1 The first amendment in the French version does not apply to the English text.  
In footnote <sup>2</sup>, replace “Second” by “Third” and “2020” by “2023”.

## Chapter 7.1

- 7.1.3 In footnote <sup>2</sup>, replace “Second” by “Third” and “2020” by “2023”.

## Chapter 7.3

- 7.3.3.2.6 The amendments in the French version do not apply to the English text.

## Chapter 9.2

- 9.2.1.1 In the second indent of the second paragraph, replace “9.2.5” by “9.2.6”.  
Amend the following rows in the table:
- For 9.2.4, replace “PREVENTION OF FIRE RISKS” by “VEHICLE PROPULSION SYSTEM”.

- For 9.2.4.3, renumber as 9.2.4.2, in the column for “AT”, add “X<sup>h</sup>” and in column “COMMENTS”, add “<sup>h</sup> Applicable to motor vehicles using fuels other than hydrogen, first registered after 31 December 2026”.
- Replace the rows for 9.2.4.4 to 9.2.4.7 by:

9.2.4.3	Internal combustion engine	X	X	X <sup>i</sup>	X	<sup>i</sup> Applicable to motor vehicles first registered after 31 December 2026.
9.2.4.3.1	Engine	X	X	X <sup>i</sup>	X	<sup>i</sup> Applicable to motor vehicles first registered after 31 December 2026.
9.2.4.3.2	Exhaust system	X	X		X	
9.2.4.4	Electric power train					
9.2.4.4.1	General provisions			X	X	
9.2.4.4.2	Rechargeable electrical energy system			X <sup>i</sup>	X	<sup>i</sup> Applicable to motor vehicles first registered after 31 December 2026.
9.2.4.4.3	Measures against thermal propagation				X	
9.2.4.4.4	Vehicle charging inlet				X	
9.2.4.5	Hydrogen fuel cell			X	X	

- Renumber 9.2.4.8 to 9.2.4.8.6 as 9.2.5 to 9.2.5.6. Renumber note <sup>h</sup> as <sup>j</sup>.
- Renumber 9.2.5 to 9.2.7 as 9.2.6 to 9.2.8. Renumber notes <sup>i</sup> and <sup>j</sup> as <sup>k</sup> and <sup>l</sup>.

9.2.2.1 In the second paragraph, delete “, with the exception of the electric power train in compliance with the technical provisions of UN Regulation No. 100<sup>1</sup>, as amended at least by the 03 series of amendments,”.

Add a new third paragraph to read: “The electric power train and the high voltage components which are galvanically connected to it, which are in compliance with the technical provisions of UN Regulation No. 100<sup>1</sup>, as amended at least by the 03 series of amendments, need not to comply with the provisions of 9.2.2.2 to 9.2.2.7.”.

9.2.2.3 At the end of the list, replace the period by a semicolon and add a new item to read “- From the starter battery to the electric steering equipment.”

9.2.3.1.1 Add a new second paragraph to read: “Trailers with regenerative braking or electric power train are not allowed.”.

9.2.3 Transfer the current 9.2.4.7 as a new 9.2.3.3.

9.2.4 Amend the heading to read “**Vehicle propulsion system**”.

9.2.4.1 Add a new second paragraph to read:

“Hybrid vehicles equipped with an internal combustion engine and electric power train shall comply with the relevant provisions of 9.2.4.2 to 9.2.4.5.”

9.2.4.2 Delete.

9.2.4.3 Renumber as 9.2.4.2 and amend as follows:

- Delete the note.
- In the first paragraph, after “engine”, add “or fuel cell”.
- Transfer the last two sentences of (b) to a new (c) and (d). After this, add a new (e) as follows:

“(e) Fuel tanks and cylinders for hydrogen shall meet the relevant requirements of UN Regulation No. 134<sup>9</sup>, as amended at least by the 02 series of amendments, or for liquid hydrogen containers the technical provisions of Global Technical Regulation No.13<sup>10</sup>, Amendment 1, part 7.”

- Add a new footnote <sup>9</sup> to read: “<sup>9</sup> UN Regulation No. 134 (Uniform provisions concerning the approval of motor vehicles and their components with regard to the safety-related performance of Hydrogen-Fuelled Vehicles (HFCV))”.
- Add a new footnote <sup>10</sup> to read: “<sup>10</sup> UN Global technical regulation No. 13 on hydrogen and fuel cell vehicles”.
- Renumber (c) as (f) and, in the first sentence, after “engine intakes,” add “electric storage systems,”.

9.2.4.4 Renumber as 9.2.4.3 and amend to read as follows:

**“9.2.4.3 *Internal combustion engine***

9.2.4.3.1 *Engine*

The engine propelling the vehicle shall be so equipped and situated to avoid any danger to the load through heating or ignition. The use of a fuel shall only be permitted if components are approved and installation meet the provisions of 9.2.2 and the technical requirements of:

- UN Regulation No. 110<sup>7</sup> for CNG or LNG.
- UN Regulation No. 67<sup>8</sup> for LPG.
- UN Regulation No. 134<sup>9</sup> for compressed hydrogen and the technical provisions of Global Technical Regulation No.13<sup>10</sup>, Amendment 1 for liquid hydrogen, as relevant.

In the case of EX/II and EX/III vehicles the engine shall be of compression-ignition construction using only liquid fuels with a flashpoint above 55 °C. Gases shall not be used.”

9.2.4.5 Renumber as 9.2.4.3.2 and reformat the heading accordingly.

9.2.4.6 Renumber as 9.2.4.4 and amend to read as follows:

**“9.2.4.4 *Electric power train***

Electric power trains shall not be used for EX vehicles. Trailers with regenerative braking or electric power train are not allowed.

9.2.4.4.1 *General provisions*

The electric power train shall meet the requirements of UN Regulation No. 100<sup>1</sup>, as amended at least by the 03 series of amendments.

Vehicles with an electric power train shall be equipped with an isolation resistance monitoring system.

The vehicle shall give external signals in stationary conditions, in addition to the warning to the driver receives in the driver’s cab as required by 6.15.1 of UN Regulation No.100<sup>1</sup>, as amended at least by the 03 series of amendments.

9.2.4.4.2 *Rechargeable electrical energy storage system (REESS)*

**NOTE:** Other acronyms for REESS are used in other documentation for similar systems (e.g. RESS).

REESS of vehicles with an electric power train shall be designed and constructed taking into account a risk evaluation according to ISO 6469-1:2019/Amd 1:2022 to establish safety for normal operational conditions. A review shall be carried out by a technical service such as a technical service for vehicle approvals according to UN Regulation No. 100<sup>1</sup>, as amended at least by the 03 series of amendments.

**NOTE:** Normal operational conditions also include malfunctioning and reasonably foreseeable accidental situations.

9.2.4.4.3 *Measures against thermal propagation*

REESS containing cells for which thermal propagation cannot be guaranteed to be contained within the REESS, measures shall be taken to mitigate danger to the load by heating or ignition.

9.2.4.4.4 *Vehicle charging inlet*

The vehicle charging inlet shall be provided with thermal sensing function which limits or interrupts current transfer according to ISO 17409:2020, when the temperature exceeds component rated values or required limits by applicable product standards, see e.g. IEC 62196-3-1:2020.”

9.2.4 Add a new 9.2.4.5 to read as follows:

**“9.2.4.5 *Hydrogen fuel cell vehicles***

9.2.4.5.1 Hydrogen fuel cell vehicles shall comply with the requirements for the electrical power train of 9.2.4.4.

9.2.4.5.2 Hydrogen fuel cell vehicles shall comply with UN Regulation No. 134<sup>9</sup>, as amended at least by the 02 series of amendments. For vehicles using liquid hydrogen the technical requirements of the Global Technical Regulation No.13<sup>10</sup>, Amendment 1 applies.

9.2.4.5.3 Shut-off devices of hydrogen containers shall close automatically:

- (a) when the vehicle is no longer in driving mode;
- (b) at a deceleration of  $3.25 \text{ m} \cdot \text{s}^{-2}$  for 0.7 s;
- (c) in case of a lateral overturning above an angle of  $23^\circ$ .

The shut-off devices may be re-opened by a deliberate action of the driver.”

9.2.4.8 Renumber 9.2.4.8 to 9.2.4.8.6 as 9.2.5 to 9.2.5.6.

In the renumbered 9.2.5.1 (previous 9.2.4.8.1), renumber footnote <sup>9</sup> as <sup>11</sup> and replace “9.2.4.8.2 to 9.2.4.8.6” by “9.2.5.2 to 9.2.5.6”.

In the renumbered 9.2.5.2 (previous 9.2.4.8.2), replace “9.2.4.3 and 9.2.4.5” by “9.2.4.2 and 9.2.4.3.2”.

In the renumbered 9.2.5.4 (previous 9.2.4.8.4), in the first sentence, replace “9.2.4.8.3” by “9.2.5.3”.

9.2.5 Renumber as 9.2.6. Renumber footnote <sup>10</sup> as <sup>12</sup>.

9.2.6 Renumber as 9.2.7.

9.2.7 Renumber 9.2.7 and 9.2.7.1 as 9.2.8 and 9.2.8.1. After “LNG”, add “and liquid hydrogen”.

### Chapter 9.3

9.3.2.2 Replace “9.2.4.8.1, 9.2.4.8.2, 9.2.4.8.5 and 9.2.4.8.6” by “9.2.5.1, 9.2.5.2, 9.2.5.5 and 9.2.5.6”.

### Chapter 9.7

9.7.7.1 In the first paragraph, replace “9.2.4.8.1, 9.2.4.8.2, 9.2.4.8.5” by “9.2.5.1, 9.2.5.2, 9.2.5.5”.

In the second paragraph, replace “9.2.4.8.3 and 9.2.4.8.4” by “9.2.5.3 and 9.2.5.4”.

9.7.8.1 Amend the first sentence to read “Additions to or modifications of the electrical installation on vehicles shall meet the relevant requirements of Chapter 9.2 as appropriate (see table 9.2.1.1).”. Delete the second paragraph.



## Chapter 9.8

- 9.8.6.1      Replace “9.2.4.8.1, 9.2.4.8.2, 9.2.4.8.5, 9.2.4.8.6” by “9.2.5.1, 9.2.5.2, 9.2.5.5, 9.2.5.6”.
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