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

**Joint Meeting of Experts on the Regulations annexed to the  
European Agreement concerning the International Carriage  
of Dangerous Goods by Inland Waterways (ADN)  
(ADN Safety Committee)**

**Thirty-sixth session**

Geneva, 27-31 January 2020

Item 5 (a) of the provisional agenda

**Proposals for amendments to the Regulations  
annexed to ADN: work of the RID/ADR/ADN Joint Meeting**

**Consolidated list of amendments relevant for ADN  
adopted by the Joint RID/ADR/ADN Meeting and by  
the Working Party on the Transport of Dangerous  
Goods (WP.15) for entry into force on 1 January 2021**

**Note by the secretariat\*,\*\***

1. The secretariat reproduces hereafter the draft amendments relevant to ADN adopted by the Joint Meeting at its Spring and Autumn 2018 sessions and Spring and Autumn 2019 sessions and the amendments relevant to ADN adopted by the Working Party on the Transport of Dangerous Goods (WP.15) during the biennium.

2. The amendments adopted by the Joint Meeting at its Spring and Autumn 2018 sessions and at its Spring and Autumn 2019 sessions can be found in documents ECE/TRANS/WP.15/AC.1/150, annex IV; ECE/TRANS/WP.15/AC.1/152, annex II; ECE/TRANS/WP.15/AC.1/154, annex II, ECE/TRANS/WP.15/AC.1/156, Annex II and ECE/TRANS/WP.15/AC.1/2019/22/Add.1.

Text in black corresponds to draft amendments relevant for ADN adopted by the Working Party on the Transport of Dangerous Goods (WP.15) and the Joint RID/ADR/ADN meeting in 2108 and 2019 for entry into force on 1 January 2021.

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\*\* In accordance with the programme of work of the Inland Transport Committee for 2018–2019 (ECE/TRANS/2018/21/Add.1, cluster 9.3).



Text in blue corresponds to draft amendments to ADN proposed by the Ad Hoc Working Group on the Harmonization of RID/ADR/ADN with the United Nations Recommendations on the Transport of Dangerous Goods and modified by the Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods.

## Chapter 1.1

- 1.1.3.7 (b) At the end, add “, except for equipment such as data loggers and cargo tracking devices attached to or placed in packages, overpacks, containers or load compartments which are only subject to the requirements in 5.5.4”.

## Chapter 1.2

- 1.2.1 Insert the following new definitions, in alphabetical order:

“Dose rate means the ambient dose equivalent or the directional dose equivalent, as appropriate, per unit time, measured at the point of interest.”

“IAEA Regulations for the Safe Transport of Radioactive Material means one of the editions of those Regulations, as follows:

- (a) For the 1985 and 1985 (as amended 1990) editions: IAEA Safety Series No. 6
- (b) For the 1996 edition: IAEA Safety Series No. ST-1
- (c) For the 1996 (revised) edition: IAEA Safety Series No. TS-R-1 (ST-1, Revised)
- (d) For the 1996 (as amended 2003), 2005 and 2009 editions: IAEA Safety Standards Series No. TS-R-1
- (e) For the 2012 edition: IAEA Safety Standards Series No. SSR-6
- (f) For the 2018 edition: IAEA Safety Standards Series No. SSR-6 (Rev.1).”

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

- 1.2.1 Amend the definition of “Self-accelerating decomposition temperature” to read as follows:

“Self-accelerating decomposition temperature (SADT) means the lowest temperature at which self-accelerating decomposition may occur in a substance in the packaging, IBC or tank as offered for carriage. The SADT shall be determined in accordance with the test procedures given in Part II, Section 28 of the Manual of Tests and Criteria.”

- 1.2.1 Delete the definition of “Radiation level”.

- 1.2.1 In the definition of “Self-accelerating polymerization temperature (SAPT)”, in the first sentence, insert “self-accelerating” between “which” and “polymerization”.

- 1.2.1 In the definition of “Transport index”, in the first sentence, after “SCO-I” add “or SCO-III”.

- 1.2.1 In the definition of “GHS”, replace “seventh” by “eighth” and replace “ST/SG/AC.10/30/Rev.7” by “ST/SG/AC.10/30/Rev.8”.

- 1.2.1 In the definition of “Manual of Tests and Criteria”, replace “sixth” by “seventh”, delete “Recommendations on the Transport of Dangerous Goods,” and replace “ST/SG/AC.10/11/Rev.6 and Amend.1” by “ST/SG/AC.10/11/Rev.7”.
- 1.2.1 In the definition of “UN Model Regulations”, replace “twentieth” by “twenty-first” and replace “(ST/SG/AC.10/1/Rev.20)” by “(ST/SG/AC.10/1/Rev.21)”.
- 1.2.1 Replace the definition for “*Tank-container/portable tank operator*” by:  
 “*Tank-container or portable tank operator* means any enterprise in whose name the tank-container or portable tank is operated;”.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

## Chapter 1.4

- 1.4.3.3 (e) Delete “maximum” (twice).

(Reference document: ECE/TRANS/WP.15/AC.1/152, annex II)

## Chapter 1.7

- 1.7.1, Note 1 In the first sentence, replace “In the event of accidents or incidents” by “In the event of a nuclear or radiological emergency” and “, emergency provisions, as established” by “, provisions as established”.

Amend the second sentence to read as follows: “This includes arrangements for preparedness and response established in accordance with the national and/or international requirements and in a consistent and coordinated manner with the national and/or international emergency arrangements.”.

- 1.7.1, Note 2 Amend to read as follows:

**NOTE 2:** The arrangements for preparedness and response shall be based on the graded approach and take into consideration the identified hazards and their potential consequences, including the formation of other dangerous substances that may result from the reaction between the contents of a consignment and the environment in the event of a nuclear or radiological emergency. Guidance for the establishment of such arrangements is contained in “Preparedness and Response for a Nuclear or Radiological Emergency”, IAEA Safety Standards Series No. GSR Part 7, IAEA, Vienna (2015); “Criteria for Use in Preparedness and Response for a Nuclear or Radiological Emergency”, IAEA Safety Standards Series No. GSG-2, IAEA, Vienna (2011); “Arrangements for Preparedness for a Nuclear or Radiological Emergency”, IAEA Safety Standards Series No. GS-G-2.1, IAEA, Vienna (2007), and “Arrangements for the Termination of a Nuclear or Radiological Emergency”, IAEA Safety Standards Series No. GSG-11, IAEA, Vienna (2018).”

- 1.7.1.1 In the first sentence, replace “to persons” by “to people”. Amend the second and third sentences to read “These standards are based on the IAEA “Regulations for the Safe Transport of Radioactive material, 2018 Edition”, IAEA Safety Standards Series No. SSR-6 (Rev.1), IAEA, Vienna (2018). Explanatory material can be found in “Advisory Material for the IAEA Regulations for the Safe Transport

- of Radioactive Material (2018 Edition)”, Safety Standard Series No. SSG-26 (Rev.1), IAEA, Vienna (2019).”.
- 1.7.1.2 In the first sentence, replace “persons” by “people” and replace “from the effects of radiation in the carriage” by “from harmful effects of ionizing radiation during the carriage”.
- In (b), replace “radiation levels” by “dose rate”.
- In the last sentence, replace “Finally” by “Thirdly” and add the following new sentence at the end: “Finally, further protection is provided by making arrangements for planning and preparing emergency response to protect people, property and the environment.”.
- 1.7.1.5.1 (a) After “5.2.1.10,” add “5.4.1.2.5.1 (f) (i) and (ii), 5.4.1.2.5.1 (i),” and after “7.1.4.14.7.3.1” add “, 7.1.4.14.7.4.3”.
- 1.7.1.5.2 Delete the second sentence.
- 1.7.2.4 In the last sentence replace “individual monitoring or work place monitoring” by “workplace monitoring or individual monitoring”.
- 1.7.4.2 In the second sentence, replace “through alternative means” by “through means alternative to the other provisions of ADN,” and replace “for single or a planned series of multiple consignments” by “for a single consignment or a planned series of multiple consignments”. In the third sentence, at the end, after “applicable requirements” add “of ADN”.
- 1.7.6.1 Amend as follows:
- In the introductory sentence, replace “radiation level” by “dose rate”.
- In (a), replace “consignor, consignee, carrier,” by “consignor, carrier, consignee”.
- In (b), at the beginning, replace “carrier, consignor or consignee” by “consignor, carrier, or consignee”. In (b) (iii), replace “similar circumstances” by “the causes and circumstances similar to those”. In (b) (iv), replace “on corrective or preventive actions” by “the corrective or preventive actions”.

## **Chapter 1.8**

- 1.8.5.1 After “carrier” add “, unloader”.

*(Reference document: ECE/TRANS/WP.15/AC.1/152, annex II)*

- 1.8.5.3 In sub-paragraph (b) after “In occurrences involving radioactive material, the criteria for loss of product are:”, replace “Schedule II of IAEA Safety Series No. 115 – “International Basic Safety Standards for Protection against Ionizing Radiation and for the safety of Radiation Sources”” by ““Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards”, IAEA Safety Standards Series No. GSR Part 3, IAEA, Vienna (2014)”.

## Chapter 1.10

Table 1.10.3.1.2

Amend as follows:

For Class 1, Division 1.4, in column “Substance or article”, replace “and 0500” by “, 0500, 0512 and 0513”.

Add the following new row after “Class 1, Division 1.5”:

Class	Division	Substance or article	Quantity		
			Tank (l) <sup>c</sup>	Bulk (kg) <sup>d</sup>	Packages (kg)
1	1.6	Explosives	a	a	0

For Class 6.2, amend the text in column “Substance or article” to read “Infectious substances of Category A (UN Nos. 2814 and 2900, except for animal material) and medical waste of Category A (UN No. 3549)”.

- 1.10.5 Replace “The Physical Protection of Nuclear Material and Nuclear Facilities” by “Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities”. In footnote 22/2, replace “INFCIRC/225/Rev.4 (corrected), IAEA Vienna (1999)” by “INFCIRC/225/Rev.5, IAEA, Vienna (2011)”.

## Chapter 2.1

- 2.1.3.4 Add the following new paragraph:

“2.1.3.4.3 Used articles, e.g. transformers and condensers, containing a solution or mixture mentioned in 2.1.3.4.2 shall always be classified under the same entry of Class 9, provided:

- (a) they do not contain any additional dangerous components, other than polyhalogenated dibenzodioxins and dibenzofurans of Class 6.1 or components of packing group III of Class 3, 4.1, 4.2, 4.3, 5.1, 6.1 or 8, and
- (b) they do not have the hazard characteristics as indicated in 2.1.3.5.3 (a) to (g) and (i).”.

(Reference document: ECE/TRANS/WP.15/AC.1/152, annex II)

- 2.1.3.8 In the second sentence, after “Other substances meeting the criteria of no other class”, add “or of no other substance of Class 9”.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

- 2.1.5 Amend the Note under the heading to read as follows:

**NOTE:** Articles which do not have a proper shipping name and which contain only dangerous goods within the permitted limited quantity amounts specified in Column (7a) of Table A of Chapter 3.2, UN No. 3363 and special provisions 301 and 672 of Chapter 3.3 may be applied.”

(Reference document: ECE/TRANS/WP.15/AC.1/154, Annex II)

- 2.1.5.4 At the end, add the following new sentence “However, this section applies to articles containing explosives which are excluded from Class 1 in accordance with 2.2.1.1.8.2.”.

## Chapter 2.2

2.2.1.1.7.2 In the first sentence, after “0336” insert “, and assignment of articles to UN No. 0431 for those used for theatrical effects meeting the definition for article type and the 1.4 G specification in the default fireworks classification table in 2.2.1.1.7.5”.

2.2.1.1.8.2 (b)

In the Note, delete “, such as described in ISO 12097-3” and add the following new second sentence: “*One such method is described in ISO 14451-2 using a heating rate of 80 K/min.*”

2.2.1.4 For “ARTICLES, EXPLOSIVE, EXTREMELY INSENSITIVE (ARTICLES, EEI)”, replace “Articles that contain only extremely insensitive substances” by “Articles that predominantly contain extremely insensitive substances”.

2.2.1.4 After the definition for “DETONATORS, ELECTRIC for blasting”, add the following new definition:

“DETONATORS, ELECTRONIC programmable for blasting: UN Nos. 0511, 0512, 0513

Detonators with enhanced safety and security features, utilizing electronic components to transmit a firing signal with validated commands and secure communications. Detonators of this type cannot be initiated by other means.”.

2.2.2.1.5 For “Flammable gases” and for “Oxidizing gases”, replace “ISO 10156:2010” by “ISO 10156:2017”.

2.2.2.3 In the table for classification code 2F amend the name and description of UN No. 1010 to read as follows:

“1010 BUTADIENES, STABILIZED or BUTADIENES AND HYDROCARBON MIXTURE, STABILIZED, containing more than 40% butadienes”.

The Note remains unchanged.

(Reference document: ECE/TRANS/WP.15/AC.1/154, Annex II)

2.2.2.3 In the table for “Other articles containing gas under pressure”, for classification code “6F”, insert the following entry after UN No. 3150:

“3358 REFRIGERATING MACHINES containing flammable, non-toxic, liquefied gas”.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

2.2.41.1.4 Replace “Part III, sub-section 33.2.1” by “Part III, sub-section 33.2”, twice.

2.2.41.1.5 Replace “Part III, sub-section 33.2.1” by “Part III, sub-section 33.2”.

2.2.41.1.6 Replace “Part III, Section 33.2.1” by “Part III, sub-section 33.2”.

2.2.41.1.8 Replace “Part III, sub-section 33.2.1” by “Part III, sub-section 33.2”.

2.2.41.1.10 Replace “aromatic sulphohydrazides” by “aromatic sulphonylhydrazides”.

2.2.42.1.4 Replace “Part III, Section 33.3” by “Part III, sub-section 33.4”, twice.

2.2.42.1.5 Replace “Part III, section 33.3” by “Part III, sub-section 33.4”.

2.2.42.1.7 Replace “Part III, section 33.3” by “Part III, sub-section 33.4”.

- 2.2.42.1.8 Replace “Part III, section 33.3” by “Part III, sub-section 33.4”.
- 2.2.43.1.4 Replace “Part III, Section 33.4” by “Part III, sub-section 33.5”.
- 2.2.43.1.5 Replace “Part III, Section 33.4” by “Part III, sub-section 33.5”.
- 2.2.43.1.7 Replace “Part III, Section 33.4” by “Part III, sub-section 33.5”.
- 2.2.43.1.8 Replace “Part III, section 33.4” by “Part III, sub-section 33.5”.
- 2.2.52.4 In the table, for “DI-(4-tert-BUTYLCYCLOHEXYL) PEROXYDICARBONATE”, for concentration “≤ 42 as a paste”, in column “Packing Method”, replace “OP7” by “OP8” and in column “Number (Generic entry)”, replace “3116” by “3118”.
- 2.2.62.1.1 Delete “, rickettsiae”.
- 2.2.62.1.3 Amend the definition of “Medical or clinical wastes” to read as follows:  
*“Medical or clinical wastes are wastes derived from the veterinary treatment of animals, the medical treatment of humans or from bio-research.”*
- 2.2.62.1.4 Replace “or 3373” by “, 3373 or 3549”.
- 2.2.62.1.4.1, Note 1  
 Replace “proper shipping name” by “name” (twice).
- 2.2.62.1.4.1 In Note 3, delete “, mycoplasmas, rickettsia”.
- 2.2.62.1.4.2, Note  
 Replace “proper shipping name” by “name”.
- 2.2.62.1.5.9 (a)  
 In the parenthesis, replace “UN No. 3291” by “UN Nos. 3291 and 3549”.
- 2.2.62.1.11.1 Amend to read as follows:  
 “2.2.62.1.11.1 Medical or clinical waste containing:
- (a) Category A infectious substances shall be assigned to UN No. 2814, UN No. 2900 or UN No. 3549, as appropriate. Solid medical waste containing Category A infectious substances generated from the medical treatment of humans or veterinary treatment of animals may be assigned to UN No. 3549. The UN No. 3549 entry shall not be used for waste from bio-research or liquid waste;
- (b) Category B infectious substances shall be assigned to UN No. 3291.
- NOTE 1: The name for UN No. 3549 is “MEDICAL WASTE, CATEGORY A, AFFECTING HUMANS, solid” or “MEDICAL WASTE, CATEGORY A, AFFECTING ANIMALS only, solid”.*
- Renumber existing Note as Note 2.
- 2.2.62.1.11.4 Delete and insert “2.2.62.1.11.4 (Deleted)”.
- 2.2.62.3 In the list of collective entries, for I3, add the following new entries:  
 “3549 MEDICAL WASTE, CATEGORY A, AFFECTING HUMANS, solid or 3549 MEDICAL WASTE, CATEGORY A, AFFECTING ANIMALS only, solid”.

## Table 2.2.7.2.1.1

For UN 2913, in the “Proper shipping name and description” column, replace “SCO-I or SCO-II” by “SCO-I, SCO-II or SCO-III”.

## Table 2.2.7.2.1.1

For UN No. 3325, in the second column, delete the comma before “(LSA-III)”.

## Table 2.2.7.2.2.1

Add the following rows in proper order

Ba-135m	$2 \times 10^1$	$6 \times 10^{-1}$	$1 \times 10^2$	$1 \times 10^6$
Ge-69	$1 \times 10^0$	$1 \times 10^0$	$1 \times 10^1$	$1 \times 10^6$
Ir-193m	$4 \times 10^1$	$4 \times 10^0$	$1 \times 10^4$	$1 \times 10^7$
Ni-57	$6 \times 10^{-1}$	$6 \times 10^{-1}$	$1 \times 10^1$	$1 \times 10^6$
Sr-83	$1 \times 10^0$	$1 \times 10^0$	$1 \times 10^1$	$1 \times 10^6$
Tb-149	$8 \times 10^{-1}$	$8 \times 10^{-1}$	$1 \times 10^1$	$1 \times 10^6$
Tb-161	$3 \times 10^1$	$7 \times 10^{-1}$	$1 \times 10^3$	$1 \times 10^6$

## Table 2.2.7.2.2.1

In table note (b), at the end of the introductory sentence, add “(the activity to be taken into account is that of the parent nuclide only)”. After “Th-nat” and “U-nat”, insert a reference to footnote \*. The footnote reads: “\* *In the case of Th-natural, the parent nuclide is Th-232, in the case of U-natural the parent nuclide is U-238.*”.

## Table 2.2.7.2.2.1

In table note (c), replace “radiation level” by “dose rate”.

2.2.7.2.2.2 In (a), replace “the International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources, Safety Series No.115, IAEA, Vienna (1996)” by ““Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards”, IAEA Safety Standards Series No. GSR Part 3, IAEA, Vienna (2014)”.

In (b), at the end, replace “the International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources, Safety Series No.115, IAEA, Vienna (1996)” by “GSR Part 3”.

2.2.7.2.2.3 Replace “daughter nuclide” by “progeny nuclide” (twice). At the end, replace “daughter nuclides” by “progeny nuclides”.

## 2.2.7.2.3.1.2 (c)

Delete “that meet the requirements of 2.2.7.2.3.1.3.”. Delete sub-paragraph (ii) and renumber sub-paragraph (iii) as (ii).

2.2.7.2.3.1.3 Delete and add “2.2.7.2.3.1.3 (Deleted)”.

2.2.7.2.3.2 In the introductory sentence before (a), replace “two” by “three”. Add the following new sub-paragraph (c):

“(c) SCO-III: A large solid object which, because of its size, cannot be carried in a type of package described in ADN and for which:

- (i) All openings are sealed to prevent release of radioactive material during conditions defined in 4.1.9.2.4 (e) of ADR;
- (ii) The inside of the object is as dry as practicable;
- (iii) The non-fixed contamination on the external surfaces does not exceed the limits specified in 4.1.9.1.2 of ADR; and
- (iv) The non-fixed contamination plus the fixed contamination on the inaccessible surface averaged over 300 cm<sup>2</sup> does not exceed  $8 \times 10^5$  Bq/cm<sup>2</sup> for beta and gamma emitters and low toxicity alpha emitters, or  $8 \times 10^4$  Bq/cm<sup>2</sup> for all other alpha emitters.”.

## 2.2.7.2.3.3.5 (b)

After “a free drop of 1.4 kg”, replace “through 1 m” by “from a height of 1 m”.

## 2.2.7.2.3.3.5 (c)

After “a free vertical drop of 1.4 kg”, replace “through 1 m” by “from a height of 1 m”.

2.2.7.2.3.3.7 In sub-paragraph (b), replace “with specimen” by “and the specimen”. In sub-paragraph (e), replace “with the specimen” by “and the specimen”.

## 2.2.7.2.3.3.8 (a) (ii)

Replace “shall be heated” by “shall then be heated”.

## 2.2.7.2.3.4.1 (a)

Replace “radiation level” by “dose rate”.

## 2.2.7.2.3.5 (e)

Replace “limits provided in” by “the requirements of”.

2.2.7.2.3.6 At the beginning, replace “A fissile material” by “Fissile material”.

2.2.7.2.4.1.2 Replace “radiation level” by “dose rate”.

## 2.2.7.2.4.1.3 (a)

Replace “radiation level” by “dose rate”.

2.2.7.2.4.1.3 At the end of sub-paragraph (c), delete “and”. At the end of sub-paragraph (d), replace the full stop by a semicolon. Add additional sub-paragraphs (e) and (f) as follows:

“(e) *(Reserved)*;

(f) If the package contains fissile material, one of the provisions of 2.2.7.2.3.5 (a) to (f) applies.”

2.2.7.2.4.1.4 At the end of sub-paragraph (a), delete “and”. At the end of existing (b) (ii), replace “.” by “; and”. Add additional sub-paragraph (c):

“(c) If the package contains fissile material, one of the provisions of 2.2.7.2.3.5 (a) to (f) applies.”

- 2.2.7.2.4.1.7 At the end of (c) (ii), delete “and”. At the end of (d), replace “.” by “; and”. Add additional sub-paragraph (e):
- “(e) If the packaging has contained fissile material, one of the provisions of 2.2.7.2.3.5 (a) to (f) or one of the provisions for exclusion in 2.2.7.1.3 applies.”
- 2.2.8.1.1 The amendment to the French version does not apply to the English text.
- 2.2.8.1.5.2 In the second sentence, replace “the assignment” by “classification” and replace “OECD Test Guideline 404<sup>5</sup> or 435<sup>6</sup>” by “OECD Test Guidelines<sup>5,6,7,8</sup>”.
- In the third sentence replace “OECD Test Guideline 430<sup>7</sup> or 431<sup>8</sup>” by “OECD Test Guidelines<sup>5,6,7,8</sup>”.
- Delete the existing footnote 8 and renumber the current footnote 7 to 8. In the renumbered footnote, add “*Method*” between “*Test*” and “(*TER*)”. Insert a new footnote 7 as follows: “<sup>7</sup> *OECD Guideline for the testing of chemicals No. 431 “In vitro skin corrosion: reconstructed human epidermis (RHE) test method” 2016.*”.
- At the end of the paragraph, add the following new sentence: “If the *in vitro* test results indicate that the substance or mixture is corrosive and not assigned to packing group I, but the test method does not allow discrimination between packing groups II and III, it shall be considered to be packing group II.”.
- 2.2.8.1.6.3.3 At the end, add the following new sentence: “For this calculation method, generic concentration limits apply where 1% is used in the first step for the assessment of the packing group I substances, and where 5% is used for the other steps respectively.”.
- 2.2.8.1.6.3.4 Delete the last sentence.
- 2.2.9.1.14, Note In footnote 11, remove “used as coolant”.
- 2.2.9.3 For M11, “Other substances and articles presenting a danger during carriage...”, after “3359 FUMIGATED CARGO TRANSPORT UNIT”, add “3363 DANGEROUS GOODS IN ARTICLES or”.

## Chapter 2.3

- 2.3.2 In the heading, amend “Class 4.1” to read “Class 1 and Class 4.1”.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

- 2.3.2.1 Amend to read as follows:

“2.3.2.1 In order to determine the criteria of the nitrocellulose, the Bergmann-Junk test or the methyl violet paper test in the Manual of Tests and Criteria Appendix 10 shall be performed (see Chapter 3.3, special provisions 393 and 394). If there is doubt that the ignition temperature of the nitrocellulose is considerably higher than 132°C in the case of the Bergmann-Junk test or higher than 134.5°C in the case of the methyl violet paper test, the ignition temperature test described in 2.3.2.5 should be carried out before these tests are performed. If the ignition temperature of nitrocellulose mixtures is higher than 180°C or the ignition temperature of plasticized nitrocellulose is higher than 170°C, the Bergmann-Junk test or the methyl violet paper test can be carried out safely.”.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

2.3.2.2 Delete.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

2.3.2.3 Delete.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

2.3.2.4 Delete.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

2.3.2.5 Delete.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

2.3.2.6 2.3.2.6 becomes 2.3.2.2. In the text, amend “2.3.2.9 and 2.3.2.10” to read “2.3.2.5”.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

2.3.2.7 2.3.2.7 becomes 2.3.2.3. Replace “Before being dried as prescribed in 2.3.2.6 above, substances conforming to 2.3.2.2 shall” by “Before being dried as prescribed in 2.3.2.2 above, plasticized nitrocellulose shall”.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

2.3.2.8 2.3.2.8 becomes 2.3.2.4. Replace “Weakly nitrated nitrocellulose conforming to 2.3.2.1 shall first undergo preliminary drying as prescribed in 2.3.2.7 above;” by “Weakly nitrated nitrocellulose shall first undergo preliminary drying as prescribed in 2.3.2.3 above”.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

2.3.2.9 Delete.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

2.3.2.10 2.3.2.10 becomes 2.3.2.5.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

## Chapter 3.1

3.1.2.8.1 Renumber existing 3.1.2.8.1.4 as 3.1.2.8.1.5.

3.1.2.8.1 Add the following new paragraph 3.1.2.8.1.4:

“3.1.2.8.1.4 For UN Nos. 3077 and 3082 only, the technical name may be a name shown in capital letters in column 2 of Table A of Chapter 3.2, provided that this name does not include “N.O.S.” and that special provision 274 is not assigned. The name which most appropriately describes the substance or mixture shall be used, e.g.:

UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
LIQUID, N.O.S. (PAINT)

UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
LIQUID, N.O.S. (PERFUMERY PRODUCTS).”.

## Chapter 3.2, Table A

For UN Nos. 0340, 0341, 0342 and 0343, insert “393” in column (6).

For UN Nos. 1002, 1006, 1013, 1046, 1056, 1058, 1065, 1066, 1080, 1952, 1956, 2036, 3070, 3163, 3297, 3298 and 3299, in column (6), replace “660” by “392”.

For UN No. 1010 Amend the name and description in column (2) to read as follows: “BUTADIENES, STABILIZED or BUTADIENES AND HYDROCARBON MIXTURE, STABILIZED, containing more than 40% butadienes”.

(Reference document: ECE/TRANS/WP.15/AC.1/154, Annex II)

For UN No. 2037 (all entries) In column (6) insert “327”.

For UN Nos. 2211 and 3314, in column (6), insert “675”.

(Reference document: ECE/TRANS/WP.15/AC.1/152, annex II)

For UN No. 2383, in column (6), delete “386”.

For UN No. 2522, in column (2), add “, STABILIZED” at the end and in column (6) add “386”.

For UN Nos. 2555, 2556, 2557 and 3380, insert “394” in column (6).

For UN No. 2913, in column (2), replace “(SCO-I or SCO-II)” by “(SCO-I, SCO-II or SCO-III)”.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

For UN Nos. 3091 and 3481, insert “390” in column (6).

For UN No. 3291, in column (4), delete “II”. (twice)

For UN No. 3325, delete the comma before “(LSA-III)” in column (2).

For UN No. 3363, in column (2), at the beginning of the description, add “DANGEROUS GOODS IN ARTICLES or”.

For UN Nos. 3537 to 3548 In column (6) delete “667”.

(Reference document: ECE/TRANS/WP.15/AC.1/154, Annex II)

Add the following new entries in proper order:

(1)	(2)	(3)	(4)	(5)	(6)	(7a)	(7b)	(8)	(9)	(10)	(11)	(12)	(13)
0511	DETONATORS, ELECTRONIC programmable for blasting	1.1B				0	E0						
0512	DETONATORS, ELECTRONIC programmable for blasting	1.4B				0	E0						
0513	DETONATORS, ELECTRONIC programmable for blasting	1.4S			347	0	E0						
3549	MEDICAL WASTE, CATEGORY A, AFFECTING HUMANS, solid or MEDICAL WASTE, CATEGORY A, AFFECTING ANIMALS only, solid	6.2			395	0	E0						

### Chapter 3.2, table B

Amend the entry “BUTADIENES AND HYDROCARBON MIXTURE, STABILIZED, having a vapour pressure at 70 °C not exceeding 1.1 MPa (11 bar) and a density at 50 °C not lower than 0.525 kg/l” to read as follows:

“BUTADIENES, STABILIZED or BUTADIENES AND HYDROCARBON MIXTURE, STABILIZED, containing more than 40% butadienes”.

(Reference document: ECE/TRANS/WP.15/AC.1/154, Annex II)

For entry “2-DIMETHYLAMINOETHYL-METHACRYLATE”, in column “Name and description”, add at the end “, STABILIZED”.

For “RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY, (LSA-III), FISSILE”, in column “Name and description”, delete the comma before “(LSA-III)”.

For “RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECTS (SCO-I or SCO-II), non fissile or fissile-excepted”, replace “(SCO-I or SCO-II)” by “(SCO-I, SCO-II or SCO-III)”.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

For “TRINITROCHLOROBENZENE WETTED with not less than 10% water, by mass”, in column “Name and description”, insert a comma before “WETTED”.

For “TRINITROPHENOL WETTED with not less than 10% water, by mass”, in column "Name and description", insert a comma before “WETTED”.

Add the following new entries in alphabetical order:

DANGEROUS GOODS IN ARTICLES	3363	9
MEDICAL WASTE, CATEGORY A, AFFECTING HUMANS, solid	3549	6.2
MEDICAL WASTE, CATEGORY A, AFFECTING ANIMALS only, solid	3549	6.2
DETONATORS, ELECTRONIC programmable for blasting	0511 0512 0513	1 1 1

### Chapter 3.3

Special provision (SP) 188 In paragraphs (g) and (h), replace “when batteries” by “when cells or batteries”.

SP 237 Replace “Part III, sub-section 33.2.1” by “Part III, sub-section 33.2”.

SP 241 Replace “Part III, sub-section 33.2.1.4” by “Part III, sub-section 33.2.4”.

SP 301 In the first sentence, replace “applies to machinery or apparatus” by “applies to articles such as machinery, apparatus or devices”. In the first, second, third, fourth and fifth sentences and in the last sentence, replace “machinery or apparatus” or “machinery and apparatus” by “articles”. In the fifth sentence, replace “contains” by “contain”.

SP 301 Delete the Note.

(Reference document: ECE/TRANS/WP.15/AC.1/154, Annex II)

SP 309 In the last paragraph, replace “satisfactorily pass Tests 8(a), (b) and (c)” by “satisfy the criteria for classification as an ammonium nitrate emulsion, suspension or gel, intermediate for blasting explosives (ANE)”.

SP 327 In the first sentence, replace “Waste aerosols consigned” by “Waste aerosols and waste gas cartridges consigned” and “carried under this entry for” by “carried under UN Nos. 1950 or 2037, as appropriate, for”.

After the third sentence insert the following new sentence: “Waste gas cartridges, other than those leaking or severely deformed, shall be packed in accordance with packing instruction P003 and special packing provisions PP17 and PP96 of ADR, or packing instruction LP200 and special packing provision L2 of ADR.”.

In the next sentence, replace “aerosols shall be carried in salvage packagings” by “aerosols and gas cartridges shall be carried in salvage pressure receptacles or salvage packagings”.

In the Note replace “Waste aerosols shall not” by “Waste aerosols and waste gas cartridges shall not”.

Add the following new paragraph at the end:

“Waste gas cartridges that were filled with non-flammable, non-toxic gases of Class 2, group A or O and have been pierced are not subject to ADN.”

- SP 356 After “in vehicles, wagons, vessels” add “, machinery, engines”.
- SP 360 Replace “classified under” by “assigned to” and add the following sentence at the end:
- “Lithium batteries installed in cargo transport units, designed only to provide power external to the transport unit shall be assigned to entry UN 3536 LITHIUM BATTERIES INSTALLED IN CARGO TRANSPORT UNIT lithium ion batteries or lithium metal batteries.”.
- SP 370 Amend the first sentence to read as follows: “This entry only applies to ammonium nitrate that meets one of the following criteria:” and at the end of the first indent, replace “and” by “or”.
- Add the following new paragraph at the end, after the indents:
- “This entry shall not be used for ammonium nitrate for which a proper shipping name already exists in Table A of Chapter 3.2 including ammonium nitrate mixed with fuel oil (ANFO) or any of the commercial grades of ammonium nitrate.”.
- Number the first indent as (a) and the second indent as (b).
- SP 376 Amend the Note to read as follows:
- “NOTE: In assessing a cell or battery as damaged or defective, an assessment or evaluation shall be performed based on safety criteria from the cell, battery or product manufacturer or by a technical expert with knowledge of the cell’s or battery’s safety features. An assessment or evaluation may include, but is not limited to, the following criteria:*
- (a) Acute hazard, such as gas, fire, or electrolyte leaking;*
  - (b) The use or misuse of the cell or battery;*
  - (c) Signs of physical damage, such as deformation to cell or battery casing, or colours on the casing;*
  - (d) External and internal short circuit protection, such as voltage or isolation measures;*
  - (e) The condition of the cell or battery safety features; or*
  - (f) Damage to any internal safety components, such as the battery management system.”.*

SP 379 (d) (i)

Replace “ISO 11114-1:2012” by “ISO 11114-1:2012 + A1:2017”.

SP 386 In the first sentence, replace "2.2.41.1.17" by "2.2.41.1.21".

(Reference document: ECE/TRANS/WP.15/AC.1/152, annex II)

SP 388 At the end of the seventh paragraph, add the following sentence:

“Lithium ion batteries or lithium metal batteries installed in a cargo transport unit and designed only to provide power external to the cargo transport unit shall be assigned to the entry UN 3536 LITHIUM BATTERIES INSTALLED IN CARGO TRANSPORT UNIT lithium ion batteries or lithium metal batteries.”

SP 556 Delete and add “(Deleted)”.

(Reference document: ECE/TRANS/WP.15/AC.1/152, annex II)

SP 653 In the first indent, replace “for construction and testing” by “for construction, testing and filling”.

(Reference document: ECE/TRANS/WP.15/AC.1/154, Annex II)

SP 660 Delete and insert “660 (Deleted)”.

SP 667 In paragraphs (a), (b) and (b) (ii), replace “engine, machinery or article” by “engine or machinery”.

In paragraph (b) (i), replace “engines, machinery or article” by “engines or machinery”.

In paragraph (c), replace “engines, machinery or articles” by “engines or machinery”.

(Reference document: ECE/TRANS/WP.15/AC.1/154, Annex II)

SP 671 At the end, add the following new paragraph:

“Kits containing only dangerous goods to which no packing group is assigned shall be allocated to transport category 2 for completion of transport documents and the exemption related to quantities carried per vessel (see 1.1.3.6).”.

(Reference document: ECE/TRANS/WP.15/AC.1/154, Annex II)

Add the following new special provisions:

“390 When a package contains a combination of lithium batteries contained in equipment and lithium batteries packed with equipment, the following requirements apply for the purposes of package marking and documentation:

(a) the package shall be marked “UN 3091” or “UN 3481”, as appropriate. If a package contains both lithium ion batteries and lithium metal batteries packed with and contained in equipment, the package shall be marked as required for both battery types. However, button cell batteries installed in equipment (including circuit boards) need not be considered;

(b) the transport document shall indicate “UN 3091 LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT” or “UN 3481 LITHIUM ION BATTERIES PACKED WITH EQUIPMENT”, as appropriate. If a package contains both lithium metal batteries and lithium ion batteries packed with and contained in equipment, then the transport document shall indicate both “UN 3091 LITHIUM METAL BATTERIES

PACKED WITH EQUIPMENT” and “UN 3481 LITHIUM ION BATTERIES PACKED WITH EQUIPMENT”.”.

- “393 The nitrocellulose shall meet the criteria of the Bergmann-Junk test or methyl violet paper test in the Manual of Tests and Criteria Appendix 10. Tests of type 3 (c) need not be applied.”
- “394 The nitrocellulose shall meet the criteria of the Bergmann-Junk test or methyl violet paper test in the Manual of Tests and Criteria Appendix 10.”
- “395 This entry shall only be used for solid medical waste of Category A carried for disposal.”
- “675 For packages containing these dangerous goods, mixed loading with substances and articles of Class 1, with the exception of 1.4S, shall be prohibited.”.

(Reference document: ECE/TRANS/WP.15/AC.1/152, annex II)

## Chapter 5.1

- 5.1.5.1.2 At the end of sub-paragraph (d) add "and".  
Add a new sub-paragraph (e) to read as follows:  
“(e) the shipment of SCO-III.”.
- 5.1.5.1.4 (b) At the end, replace “in the hands” by “in the possession”.
- 5.1.5.3.1 In the introductory sentence, replace “or SCO-I” by “, SCO-I or SCO-III”. In (a), replace “radiation level” by “dose rate” (twice) and replace “and SCO-I” by “, SCO-I or SCO-III”. In (a), in the second sentence, delete “and the resulting number is the transport index”. In (b) replace “and SCO-I” by “, SCO-I and SCO-III”. At the end of (c), add “and the resulting number is the TI value.”
- Table 5.1.5.3.1 In the title replace “and SCO-I” by “, SCO-I and SCO-III”.
- 5.1.5.3.2 Amend to read as follows:
- “5.1.5.3.2 The TI for each rigid overpack, container or vehicle [**conveyance**] shall be determined as the sum of the TIs of all the packages contained therein. For a shipment from a single consignor, the consignor may determine the TI by direct measurement of dose rate.  
  
The TI for a non-rigid overpack shall be determined only as the sum of the TIs of all the packages within the overpack.”.
- Note by the secretariat: The Joint Meeting adopted the proposal by the secretariat of OTIF to revoke the decision on the use of “conveyance” in 5.1.5.3.2 of RID/ADR (see annex II). It was noted that for ADN, the question would be re-examined by the ADN Safety Committee at its thirty-sixth session in January 2020.*
- 5.1.5.3.4 (a) Replace “radiation level” by “dose rate” (twice).
- 5.1.5.3.4 (b) Replace “transport index” by “TI”.
- 5.1.5.3.4 (c) Replace “radiation level” by “dose rate”.
- Table 5.1.5.3.4 Replace “radiation level” by “dose rate”.

## Chapter 5.2

- 5.2.1.1 Amend the end of the second sentence to read as follows: "...for cylinders of 60 l water capacity or less when they shall be at least 6 mm in height and except for packages of 5 l capacity or less or of 5 kg maximum net mass when they shall be of an appropriate size".
- 5.2.1.7.6 Add the following sentence at the end:  
 "Any mark on the package made in accordance with the requirements of 5.2.1.7.4 (a) and (b) and 5.2.1.7.5 (c) relating to the package type that does not relate to the UN number and proper shipping name assigned to the consignment shall be removed or covered."
- 5.2.1.9.2 In Figure 5.2.1.9.2, replace "120 mm" by "100 mm" and "110 mm" by "100 mm".  
 In the last paragraph:  
 First sentence: replace "a rectangle" by "a rectangle or a square".  
 Second sentence: replace "120 wide x 110 m high" by "100 mm wide x 100 mm high".  
 Fifth sentence: delete "/line thickness" and replace "105 mm wide x 74 mm high" by "100 mm wide x 70 mm high".
- 5.2.2.1.11.2 In (d), replace "(no transport index entry is required for category I-WHITE)" by "(except for category I-WHITE)".

## Chapter 5.3

- 5.3.2.3.2 After the entry for "X83", insert the following new entry:  
 "836 Corrosive or slightly corrosive substance, flammable (flash-point between 23°C and 60°C, inclusive) and toxic".

(Reference document: ECE/TRANS/WP.15/AC.1/152, annex II)

## Chapter 5.4

- 5.4.1.1.1 (f) The amendment to the French version does not apply to the English text.
- 5.4.1.2.5.1 Amend sub-paragraphs (d) and (e) to read:  
 "(d) The category of the package, overpack or container, as assigned per 5.1.5.3.4, i.e. I-WHITE, II-YELLOW, III-YELLOW;  
 (e) The TI as determined per 5.1.5.3.1 and 5.1.5.3.2 (except for category I-WHITE);".
- [5.4.1.2.2 (d) Replace "tank-containers" by "tank-wagons, tank-containers or portable tanks".]

*Note by the secretariat: To be confirmed by the Safety Committee.*

- 5.4.1.2.5.1 In (j), replace "SCO-I and SCO-II" by "SCO-I, SCO-II and SCO-III".
- 5.4.2 In the second paragraph, at the end of the first sentence, delete "one to the other".

## 5.4.2, footnote 6

At the beginning, replace “(Amendment 38-16)” by “(Amendment 39-18)”.

**Chapter 5.5**

5.5.3 In the title, after “applicable to”, add “the carriage of dry ice (UN 1845) and to”.

At the end, in the text in parentheses, after “(UN 1951)”, add “or nitrogen”.

Add the following new Note after the heading of 5.5.3:

**“NOTE:** *In the context of this section the term “conditioning” may be used in a broader scope and includes protection.”.*

5.5.3.2.1 After “containers”, add “in which dry ice (UN 1845) is carried or”.

*(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)*

5.5.3.2.4 After “containers”, add “in which dry ice (UN 1845) is carried or”.

*(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)*

5.5.3.3 After “Packages containing”, add “dry ice (UN 1845) or”.

*(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)*

5.5.3.3.3 After “Packages containing”, add “dry ice (UN 1845) or”.

*(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)*

5.5.3.4 In the title, after “Packages containing”, add “dry ice (UN 1845) or”.

*(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)*

5.5.3.4.1 At the beginning of the first sentence, replace “Packages” by “Packages containing dry ice (UN 1845) as a consignment shall be marked “CARBON DIOXIDE, SOLID” or “DRY ICE”; packages”.

*(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)*

5.5.3.6.1 After “containers containing”, add “dry ice (UN 1845) or”.

*(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)*

5.5.3.6.1 (a) After “harmful concentrations of”, add “dry ice (UN 1845) or”.

*(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)*

5.5.3.6.1 (b) Replace “The cooled” by “The dry ice (UN 1845) or cooled”.

*(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)*

5.5.3.6.2 In Figure 5.5.3.6.2, amend the title to read “Asphyxiation warning mark for vehicles, wagons and containers”. Delete the reference to note \*\* and the corresponding note. In note \*, at the beginning, replace “of the coolant/conditioner” by “or the name of the asphyxiant gas used as the coolant/conditioner”. At the end of note \* add “Additional information such as “AS COOLANT” or “AS CONDITIONER” may be added.”.

5.5.3.7.1 After “having contained”, add “dry ice (UN 1845) or”.

*(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)*

- 5.5.3.7.1 (b) After “Chapter 3.2 followed”, add “, where appropriate”. After ““AS CONDITIONER””, remove “as appropriate”.

(Reference document: ECE/TRANS/WP.15/AC.1/156, Annex II)

5.5.4 Add a new section 5.5.4 to read as follows:

**“5.5.4 Dangerous goods contained in equipment in use or intended for use during carriage, attached to or placed in packages, overpacks, containers or load compartments**

5.5.4.1 Dangerous goods (e.g. lithium batteries, fuel cell cartridges) contained in equipment such as data loggers and cargo tracking devices, attached to or placed in packages, overpacks, containers or load compartments are not subject to any provisions of ADN other than the following:

- (a) the equipment shall be in use or intended for use during carriage;
- (b) the contained dangerous goods (e.g. lithium batteries, fuel cell cartridges) shall meet the applicable construction and test requirements specified in ADN; and
- (c) the equipment shall be capable of withstanding the shocks and loadings normally encountered during carriage.

5.5.4.2 When such equipment containing dangerous goods is carried as a consignment, the relevant entry of Table A of Chapter 3.2 shall be used and all applicable provisions of ADN shall apply.”

## Chapter 7.1

7.1.4.14.7.2 At the end of the first sentence replace “:” by “.”.

7.1.4.14.7.2 Add the following new sentence after the first sentence: “For SCO-III, the limits in Table C below may be exceeded provided that the transport plan contains precautions which are to be employed during carriage to obtain an overall level of safety at least equivalent to that which would be provided if the limits had been applied.”

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

“(b) The dose rate under routine conditions of carriage shall not exceed 2 mSv/h at any point on the external surface of the conveyance, and 0.1 mSv/h at 2 m from the external surface of the conveyance, except for consignments carried under exclusive use by [road or rail] for which the radiation dose rate limits around the conveyance are set forth in 7.1.4.14.7.3.5 (b) and (c);”.

### *Alternative proposals from the secretariat:*

“(b) The dose rate under routine conditions of carriage shall not exceed 2 mSv/h at any point on the external surface of vehicles, wagons or containers [loaded on the conveyance], and 0.1 mSv/h at 2 m from the external surface of vehicles, wagons or containers [loaded on the conveyance], except for consignments carried under exclusive use in a vehicle or wagon for which the radiation limits around the vehicles or wagons are set forth in 7.1.4.14.7.3.5 (b) and (c).”

“(b) The dose rate under routine conditions of carriage shall not exceed 2 mSv/h at any point on the external surface of a vehicle, wagon or container, and 0.1 mSv/h at 2 m from the external surface of a vehicle, wagon or container, except for consignments carried under

exclusive use in a vehicle or wagon for which the radiation limits around the vehicle or wagon are set forth in 7.1.4.14.7.3.5 (b) and (c).”

7.1.4.14.7.3.5

Replace “radiation level” by “dose rate”.

7.1.4.14.7.3.6

Replace “radiation level” by “dose rate”.

7.1.4.14.7.5.1

Replace “radiation level” by “dose rate”. In the last sentence, replace “persons” by “people”.

7.1.4.14.7.5.4

Replace “radiation level” by “dose rate”.

7.1.4.14.7.5.4 (c)

Replace “radiation level” by “dose rate”.

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