
Economic Commission for Europe**Inland Transport Committee**

30 July 2019

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-fifth session**

Geneva, 26-30 August 2019

Item 4 (a) of the provisional agenda

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

Outcome of the Ad Hoc Working Group on the Harmonization of RID/ADR/ADN with the United Nations Recommendations on the Transport of Dangerous Goods**Note by the secretariat**

1. The Safety Committee may wish to note that at its next autumn 2019 session, the RID/ADR/ADN Joint Meeting will consider proposals of harmonization with the 21st revised edition of the United Nations Recommendations on the Transport of Dangerous Goods, contained in ECE/TRANS/WP.15/AC.1/2019/22 and Add.1.
2. The secretariat is reproducing hereafter the amendments submitted for consideration of the Joint Meeting that are relevant to ADN, with comments on the parts where actions or decisions from the ADN Safety Committee are expected.
3. The ADN Safety Committee is invited to present any relevant issue for consideration at the autumn 2019 or the spring 2020 sessions of the Joint Meeting, if necessary.

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”.

Note from the secretariat: The representative of IMO informed the TDG Sub-Committee of a deviation when implementing amendment to 5.5.4 into the IMDG Code (see paragraphs 3.11-3.13 of informal document INF.49 of the fifty-fifth session of the TDG Sub-Committee, <http://www.unece.org/fileadmin/DAM/trans/doc/2019/dgac10c3/UN-SCETDG-55-INF49e.pdf>).

The safety committee is invited to consider if this deviation is relevant for ADN and to raise the issue at the Joint Meeting if necessary.

Chapter 1.2

- 1.2.1 Insert the following new definition, 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.”
- 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, tank or portable 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.”

Note from the secretariat: Information regarding the effects of heating under confinement currently included in the existing definition (second sentence) is lost in the new proposal and it might be important for ADN. Existing text reads: "Provisions for determining the SADT and the effects of heating under confinement are contained in Part II of the Manual of Tests and Criteria;".

Conclusions from the ad hoc Working Group: "11. The Working Group took note of the comment from the secretariat in document ECE/TRANS/WP.15/AC.1/HAR/2019/1 but concluded that since section 28 of the Manual of Tests and Criteria mainly contained provisions for determining the self-accelerating decomposition temperature, the information regarding the effects of heating under confinement was not necessary."

- 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)”.

Chapter 1.6

- 1.6.6.1 Amend to read as follows:
- “1.6.6.1 *Packages not requiring competent authority approval of design under the 1985, 1985 (as amended 1990), 1996, 1996 (revised), 1996 (as amended 2003), 2005, 2009 Editions of IAEA Safety Series No. 6 and 2012 Edition of IAEA Safety Standards Series No. SSR-6***
- Packages not requiring competent authority approval of design (excepted packages, Type IP-1, Type IP-2, Type IP-3 and Type A

packages) shall meet the requirements of RID/ADR/ADN in full, except that:

- (a) Packages that meet the requirements of the 1985 or 1985 (as amended 1990) Editions of IAEA Safety Series No. 6:
 - (i) May continue to be carried provided that they were prepared for carriage prior to 31 December 2003 and are subject to the requirements of 1.6.6.2.3, if applicable; or
 - (ii) May continue to be used, provided that all the following conditions are met:
 - They were not designed to contain uranium hexafluoride;
 - The applicable requirements of 1.7.3 are applied;
 - The activity limits and classification in 2.2.7 are applied;
 - The requirements and controls for carriage in Parts 1, 3, 4, 5 and 7 are applied; and
 - The packaging was not manufactured or modified after 31 December 2003;
- (b) Packages that meet the requirements of the 1996, 1996 (revised), 1996 (as amended 2003), 2005 or 2009 Editions of IAEA Safety Series No. 6, or 2012 Edition of IAEA Safety Standards Series No. SSR-6:
 - (i) May continue to be carried provided that they were prepared for carriage prior to 31 December 2025 and are subject to the requirements of 1.6.6.2.3, if applicable; or
 - (ii) May continue to be used, provided that all the following conditions are met:
 - The applicable requirements of 1.7.3 are applied;
 - The activity limits and classification in 2.2.7 are applied;
 - The requirements and controls for carriage in Parts 1, 3, 4, 5 and 7 are applied; and
 - The packaging was not manufactured or modified after 31 December 2025.”

1.6.6.2 Amend the title of 1.6.6.2 to read: “Package designs approved under the 1985, 1985 (as amended 1990), 1996, 1996 (revised), 1996 (as amended 2003), 2005 and 2009 Editions of IAEA Safety Series No. 6 and 2012 Edition of IAEA Safety Standards Series No. SSR-6”.

1.6.6.2.1 Amend to read as follows:

“1.6.6.2.1 Packages requiring competent authority approval of the design shall meet the requirements of RID/ADR/ADN in full except that:

- (a) Packagings that were manufactured to a package design approved by the competent authority under the provisions of the 1985 or 1985 (as amended 1990) Editions of IAEA Safety Series No. 6 may continue to be used provided that all of the following conditions are met:
 - (i) The package design is subject to multilateral approval;

- (ii) The applicable requirements of 1.7.3 are applied;
 - (iii) The activity limits and classification in 2.2.7 are applied;
 - (iv) The requirements and controls for carriage in Parts 1, 3, 4, 5 and 7 are applied;
 - (v) *(Reserved)*;
- (b) Packagings that were manufactured to a package design approved by the competent authority under the provisions of the 1996, 1996 (revised), 1996 (as amended 2003), 2005 or 2009 Editions of IAEA Safety Series No. 6, or 2012 Edition of IAEA Safety Standards Series No. SSR-6 may continue to be used provided that all of the following conditions are met:
- (i) The package design is subject to multilateral approval after 31 December 2025;
 - (ii) The applicable requirements of 1.7.3 are applied;
 - (iii) The activity limits and material restrictions of 2.2.7 are applied;
 - (iv) The requirements and controls for carriage in Parts 1, 3, 4, 5 and 7 are applied.”

1.6.6.2.3 Add the following new paragraph 1.6.6.2.3:

“1.6.6.2.3 No new manufacture of packagings of a package design meeting the provisions of the 1996, 1996 (revised), 1996 (as amended 2003), 2005 or 2009 Editions of IAEA Safety Series No. 6, or 2012 Edition of IAEA Safety Standards Series No. SSR-6 shall be permitted to commence after 31 December 2028.”

1.6.6.4 Amend the title to read as follows: “Special form radioactive material approved under the 1985, 1985 (as amended 1990), 1996, 1996 (revised), 1996 (as amended 2003), 2005 or 2009 Editions of IAEA Safety Series No. 6 or 2012 Edition of IAEA Safety Standards Series No. SSR-6”.

1.6.6.4 Amend the paragraph under the title to read as follows:

“Special form radioactive material manufactured to a design that had received unilateral approval by the competent authority under the 1985, 1985 (as amended 1990), 1996, 1996 (revised), 1996 (as amended 2003), 2005 and 2009 Editions of IAEA Safety Series No. 6 and 2012 Edition of IAEA Safety Standards Series No. SSR-6 may continue to be used when in compliance with the mandatory management system in accordance with the applicable requirements of 1.7.3. There shall be no new manufacture of special form radioactive material to a design that had received unilateral approval by the competent authority under the 1985 or 1985 (as amended 1990) Editions of IAEA Safety Series No. 6. No new manufacture of special form radioactive material to a design that had received unilateral approval by the competent authority under the 1996, 1996 (revised), 1996 (as amended 2003), 2005 and 2009 Editions of IAEA Safety Series No. 6, and 2012 Edition of IAEA Safety Standards Series No. SSR-6 shall be permitted to commence after 31 December 2025.”

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.”.

(ADN): 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 RID/ADR/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 RID/ADR/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

1.8.5.3 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) ^c	Bulk (kg) ^d	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

2.1.5.4 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

(ADR:) 2.2.1.1.7.2

In the first sentence, replace “and 0336” by “or 0336”.

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”.

(Correction to the 20th revised edition of the Model Regulations)

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”.

2.2.41.1.4 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, sub-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”.

(Correction to the 20th revised edition of the Model Regulations)

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”.

(ADR/ADN:) 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)”.

(Editorial)

Table 2.2.7.2.2.1

Add the following rows in proper order

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

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 RID/ADR/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) (ADN: 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 (ADN: of ADR); and
- (iv) The non-fixed contamination plus the fixed contamination on the inaccessible surface averaged over 300 cm² does not exceed 8 × 10⁵ Bq/cm² for beta and gamma emitters and low toxicity alpha emitters, or 8 × 10⁴ Bq/cm² 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) shall apply.”

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) shall apply.”

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 shall apply.”

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 404⁵ or 435⁶” by “OECD Test Guidelines^{5,6,7,8}”.

In the third sentence replace “OECD Test Guideline 430⁷ or 431⁸” by “OECD Test Guidelines^{5,6,7,8}”.

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: “⁷ *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.”.

(Correction to the 20th revised edition of the Model Regulations)

- 2.2.8.1.6.3.4 Delete the last sentence.

(Correction to the 20th revised edition of the Model Regulations)

- 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 3.1

- 3.1.2.8.1.4 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 [to it]. 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

Add the following new entries in proper order:

(ADN:)

(1)	(2)	(3)	(4)	(5)	(6)	(7a)	(7b)	(8)	(9)	(10)	(11)	(12)	(13)
0511	DETONATORS, ELECTRONIC programmable for blasting	1.1B				0	E0						

(1)	(2)	(3)	(4)	(5)	(6)	(7a)	(7b)	(8)	(9)	(10)	(11)	(12)	(13)
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 6XX	0	E0						
[3549	MEDICAL WASTE, CATEGORY A, AFFECTING HUMANS, solid, in refrigerated liquid nitrogen or MEDICAL WASTE, CATEGORY A, AFFECTING ANIMALS only, solid, in refrigerated liquid nitrogen	6.2		6.2 +2.2	395	0	E0]

Note by the secretariat: Table A of ADN to be completed by the informal working group on substances

Conclusions from the ad hoc Working Group:

UN No. 3549 in refrigerated liquid nitrogen

30. Views were divided on the need for a specific entry for wastes of UN No. 3549 in refrigerated liquid nitrogen like that applicable to other infectious substances (UN Nos. 2814, 2900 and 3291).

31. Some delegations considered that cooling was appropriate in the case of liquid wastes to avoid spillage or to prevent proliferation of bacteria but were not convinced that this was necessary in the case of solid wastes. Others pointed out that MP6 already allowed the use of a coolant and therefore felt that an additional entry to this end was not necessary. It was noted however, that even though MP6 was assigned to UN Nos. 2814, 2900 and 3291, an additional entry addressing carriage in refrigerated liquid nitrogen was available. Some others felt that if assignment of MP6 to the first entry was intended to allow coolants or conditioners other than refrigerated liquid nitrogen, prohibition to use the latter should be clearly indicated, and suggested to address it in a special provision.

32. After an exchange of views, the Working Group agreed on the following two options:

Option 1:

Keep only one entry, with MP6 assigned in column (9b), and a new special provision 6XX ("Refrigerated liquid nitrogen shall not be used as a coolant for substances under this entry.")

Option 2:

Keep two entries, as for UN Nos. 2814, 2900 and 3291, with MP6 and the new special provision 6XX assigned to the first entry, and MP2 only for the entry addressing carriage in refrigerated liquid nitrogen.

33. The Working Group invites the Joint Meeting to take a decision on the most appropriate option and to consider whether a similar approach should be followed for UN Nos. 2814, 2900 and 3291.

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".

(ADN:) For UN 2037 (all entries) In column (6) insert "327".

For UN 2383, in column (6), delete "386".

For UN 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 Nos. 2794, 2795, 2800 and 3028, delete “P801a” in column (8).

For UN 2800, add “P801” in column (8).

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

For UN 3291, in column (4), delete “II”. (twice)

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

For UN 3363, in column (2), at the beginning of the description, add “DANGEROUS GOODS IN ARTICLES or”.

Chapter 3.2, Table B

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

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 “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”.

Chapter 3.3

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

(Correction to the 20th revised edition of the Model Regulations)

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 309 In the last paragraph, replace “satisfactorily pass Tests 8(a), (b) and (c)” by “satisfy the criteria for classification as an 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 (ADN: of ADR), or packing instruction LP200 and special packing provision L2 (ADN: 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 RID/ADR/ADN.”
- (ADR/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 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 660

Delete and insert “660 *(Deleted)*”.

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.”

“6XX

Refrigerated liquid nitrogen shall not be used as a coolant for substances under this entry.”.

Chapter 5.1

(ADN:) 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 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.”

- 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)”.

(ADR/ADN:) Chapter 5.3

- 5.3.1.5.2 After “For vehicles carrying” add “unpacked LSA-I material or SCO-I or”.

- [5.3.2.1.4 In the first sentence, replace “unpacked solids or articles or packaged radioactive material with a single UN number required to be carried

under exclusive use” by “unpacked LSA-I material, SCO-I or SCO-III”.]

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);”.

[(ADN:) 5.4.1.2.2 (d)

Replace “tank-containers” by “tank-wagons, tank-containers or portable tanks”.]

Conclusions from the ad hoc Working Group:

Additional provisions for Class 2 (5.4.1.2.2 (d))

58. The Working Group considered that the proposed amendment was only suitable for ADR and proposed equivalent amendments for RID and ADN. It was agreed that the amendment relevant to ADN should be submitted to the ADN Safety Committee for consideration.

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”.

Note by the secretariat: The text of 5.4.2 of the IMDG Code in footnote 6 should be amended to reflect the amendments to the IMDG code, if necessary.

Note from the secretariat: Regarding 5.4.3.1, the representative of IMO informed the TDG Sub-Committee of a deviation for the IMDG Code (see paragraphs 3.42-3.45 of informal document INF.49 of the fifty-fifth session of the TDG Sub-Committee, <http://www.unece.org/fileadmin/DAM/trans/doc/2019/dgac10c3/UN-SCETDG-55-INF49e.pdf>).

The safety committee is invited to consider if this deviation is relevant for ADN and to raise the issue at the Joint Meeting if necessary.

Chapter 5.5

5.5.3, heading

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.”*

5.5.3.6.2 In Figure 5.5.3.6.2, amend the title to read “Asphyxiation warning mark for vehicles (RID/ADN: , 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.”.

Note from the secretariat: For new section 5.5.4, see comments in 1.1.3.7 (b).

- 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 RID/ADR/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 RID/ADR/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 RID/ADR/ADN shall apply.”

(ADN:) Chapter 7.1

Conclusions from the ad hoc Working Group:

“65. *The Working Group agreed to forward the proposed amendments to Chapter 7.1 of ADN to the ADN Safety Committee for consideration.*”.

See informal document INF.15 from the secretariat about the use of the term “conveyance”.

- 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 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".

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".
