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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)

Twenty-fourth session
Geneva, 27–31 January 2014

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

Addendum

Annex I

Proposed amendments to the Regulations annexed to ADN for entry into force on 1 January 2015

* Distributed in German by the Central Commission for the Navigation of the Rhine under the symbol CCNR/ZKR/ADN/WP.15/AC.2/50/Add.1.

Chapter 1.1

1.1.3.3 Amend to read as follows:

"The requirements of ADN do not apply to substances used

- for the propulsion of vessels, vehicles or wagons carried,
- for the operation or upkeep of their permanently installed special equipment,
- for the operation or upkeep of their mobile special equipment used during carriage or intended to be used during carriage, or
- to ensure safety,

and which are carried on board in the packaging, receptacle or tanks intended for use for this purpose."

(Reference document: Informal document INF.14)

Chapter 1.2

1.2.1 Replace the first definition of "Cargo tank" by the following text and delete the existing definition of "Independent cargo tank".

"*Cargo tank* (when anti-explosion protection is required, comparable to zone 0) means a tank which is permanently attached to the vessel and intended for the carriage of dangerous goods;

Cargo tank design:

- (a) *Pressure cargo tank* means a cargo tank independent of the vessel's hull, built according to dedicated recognised standards for a working pressure ≥ 400 kPa;
- (b) *Closed cargo tank* means a cargo tank connected to the outside atmosphere through a device preventing unacceptable internal overpressure or underpressure;
- (c) *Open cargo tank with flame arrester* means a cargo tank connected to the outside atmosphere through a device fitted with a flame arrester;
- (d) *Open cargo tank* means a cargo tank in open connection with the outside atmosphere;

Cargo tank type:

- (a) *Independent cargo tank* (when anti-explosion protection is required, comparable to zone 0) means a cargo tank which is permanently built in, but which is independent of the vessel's structure;
- (b) *Integral cargo tank* means a cargo tank which is constituted by the vessel's structure itself and bounded by the outer hull or by walls separate from the outer hull;
- (c) *Cargo tank with walls distinct from the outer hull* means an integral cargo tank of which the bottom and side walls do not form the outer hull of the vessel or an independent cargo tank;"

(Reference document: ECE/TRANS/WP.15/AC.2/2014/9)

1.2.1 Replace the definitions of "compensation piping", "gas return piping", "venting piping" and "common vapour piping" by the following new definitions:

"*Vapour return piping (on shore)* means a pipe of the shore facility which is connected during loading or unloading to the vessel's venting piping. This pipe is designed so as to protect the vessel against detonations or the passage of flames from the shore side;"

"*Venting piping (on board)* means a pipe of the vessel's installation connecting one or more cargo tanks to the vapour return piping during loading or unloading. This pipe is fitted with

safety valves protecting the cargo tank(s) against unacceptable internal overpressure or vacuums;"

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

1.2.1 Amend the beginning of the definition of "sampling opening" to read as follows:

"Sampling opening means an opening with a diameter of not more than 0.30 m. When the list of substances on the vessel according to 1.16.1.2.5 contains substances for which protection against explosion is required in column (17) of Table C of Chapter 3.2, it shall be fitted ..."

(Reference document: ECE/TRANS/WP.15/AC.2/2014/24)

Chapter 1.4

1.4.3.3 (r) Replace "gas discharge pipe or the compensation pipe" by "vapour return piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

1.4.3.7.1 (i) Replace "gas compensation piping or the gas return pipe" by "vapour return piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

Chapter 1.6

1.6.7.1.2 a) Amend to read as follows

"(a) "Vessel in service" means

- A vessel according to Article 8, paragraph 2, of ADN;
- A vessel for which a certificate of approval has already been issued according to 8.6.1.1 to 8.6.1.4;

In both cases vessels that, as from 31 December 2014, have been without a valid certificate of approval for more than twelve months shall be excluded;"

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/4 as amended by Informal document INF.35)

1.6.7.1.2 (b) Insert the following text after "after the date indicated":

"the date of presentation for first inspection for obtaining a certificate of approval shall be decisive for nomination as a new vessel;"

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/4 as amended by Informal document INF.35)

1.6.7.1.2 Insert a new indent (d) to read as follows:

"(d) Requirements of chapter 1.6.7 applicable on board vessels in service are only valid if N.R.M. is not applicable."

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/4 as amended by Informal document INF.35)

1.6.7.2.1.1 and 1.6.7.2.2.2 Insert a new entry in the tables of general transitional provisions as follows:

1.16.1.4 and	Annex to certificate of	Renewal of the certificate of approval
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1.16.2.5	approval and provisional certificate of approval	after 31 December 2014
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(Reference documents: ECE/TRANS/WP.15/AC.2/2014/4 as amended by Informal document INF.35)

Add a new transitional measure to read as follows:

"1.6.7.2.1.3 By way of derogation from 7.1.4.1, transport in bulk of UN Nos. 1690, 1812 and 2505, may be carried out with single hull vessels until 31.12.2018."

(Reference document: ECE/TRANS/WP.15/AC.2/2014/5)

1.6.7.2.2.2, entry 1.2.1, High velocity vent valve Replace "EN 12 874:1999" by "EN ISO 16852:2010".

Replace the text under "Time limits and comments" by "N.R.M. from 1 January 2015
Renewal of certificate of approval after 31 December 2034.

Until then, the following requirements are applicable on board vessels in service:

High velocity vent valves shall conform to the standard EN 12874:1999 on board vessels built or modified from 1 January 2001 or if they have been replaced from 1 January 2001. In other cases, they shall be of a type approved by the competent authority for the use prescribed."

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/8 and Informal document INF.7 as amended)

1.6.7.2.2.2 Insert the following new transitional provision to read as follows:

9.3.1.21.3	Marking on each level gauge of all permissible maximum filling levels of cargo tanks	N.R.M. from 1 January 2015
9.3.2.21.3		Renewal of approval certificate after 31 December 2018
9.3.3.21.3		

(Reference document: ECE/TRANS/WP.15/AC.2/2014/19)

1.6.7.2.2.2, entries for 9.3.2.0.1 (c) and 9.3.3.0.1 (c) Replace "vapour pipes" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

1.6.7.2.2.2, entry for 9.3.2.14.2 Stability (intact) Delete.

(Reference document: ECE/TRANS/WP.15/AC.2/2014/22)

1.6.7.2.2.2 Insert a new transitional provision to read as follows:

9.3.2.20.1	Access to cofferdams or cofferdam compartments	N.R.M. from 1 January 2015
9.3.3.20.1		Renewal of the certificate of approval after 31 December 2034

(Reference document: ECE/TRANS/WP.15/AC.2/2014/10)

1.6.7.2.2.2, entries for 9.3.2.25.2 (i) and 9.3.3.25.2 (h) Replace "vapour pipes" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

1.6.7.2.2.3.3 Replace "vapour pipes" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

1.6.8 Insert a new paragraph to read as follows :

"Until 31 December 2018, the expert on the carriage of gases (as referred to in 8.2.1.5) does not have to be the responsible master (as referred to in 7.2.3.15) but can be any member of the crew when the type G tank vessel is only carrying UN No. 1972. In this case, the responsible master shall have attended the specialization course on gases and shall also have followed an additional training on the carriage of liquefied natural gas (LNG) in accordance with 1.3.2.2."

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/14 and Informal document INF.24 as amended)

Chapter 1.16

1.16.1 Insert a new section 1.16.1.4 to read as follows:

"1.16.1.4 Annex to the certificate of approval.

1.16.1.4.1 The certificate of approval and the provisional certificate of approval according to 1.16.1.3.1 (a) shall be complemented by an annex in accordance with the model under 8.6.1.5.

1.16.1.4.2 The annex to the certificate of approval shall include the date from which the transitional provisions according to 1.6.7 may be applied. This date shall be:

(a) For vessels according to Article 8, paragraph 2 of ADN for which evidence can be provided that they were already approved for the carriage of dangerous goods on the territory of a Contracting Party before 26 May 2000, 26 May 2000;

(b) For vessels according to Article 8, paragraph 2, of ADN for which evidence cannot be provided that they were already approved for the carriage of dangerous goods on the territory of a Contracting Party before 26 May 2000, the proven date of the first inspection for the issue of an approval for the carriage of dangerous goods on the territory of a Contracting Party or, if this date is not known, the date of issue of the first proven approval for the carriage of dangerous goods on the territory of a Contracting Party;

(c) For all other vessels, the proven date of the first inspection for the issue of a certificate of approval in the sense of ADN or, if this date is not known, the date of issue of the first certificate of approval in the sense of ADN;

(d) In derogation to (a) to (c) above, the date of a renewed first inspection according to 1.16.8 if the vessel no longer had a valid certificate of approval as from 31 December 2014 for more than twelve months.

1.16.1.4.3 All approvals for the carriage of dangerous goods issued on the territory of a Contracting Party which are valid as from the date under 1.16.1.4.2 and all ADN certificates of approval and provisional certificates of approval according to 1.16.1.3.1 (a) shall be entered in the annex to the certificate of approval.

Certificates of approval issued before the issuance of the annex to the certificate of approval shall be recorded by the competent authority that issues the annex to the certificate of approval.

1.16.2.5 The annex to the certificate of approval shall be issued by the competent authority of a Contracting Party. The Contracting Parties shall assist one another at the time of issuance. They shall recognize this annex to the certificate of approval. Each new certificate of approval or provisional certificate of approval issued in accordance with 1.16.1.3.1 (a) shall be entered in the annex to the certificate of approval. Should the annex to the certificate of approval be replaced (e.g. in case of damage or loss), all existing entries shall be transferred.

1.16.2.6 The annex to the certificate of approval shall be withdrawn and a new annex to the certificate of approval shall be issued if according to 1.16.8 a renewed first inspection takes place, as the validity of the certificate of approval expired, as from 31 December 2014, more than twelve months previously.

The valid date is the date on which the application was received by the competent authority. In this case, only such certificates of approval which have been issued after the renewed first inspection shall be recorded."

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/4 as amended by Informal document INF.35)

1.16.6 Insert a new paragraph 1.16.6.4 to read as follows:

"1.16.6.4 In cases of the transfer of responsibility to another competent authority according to 1.16.6.3, the competent authority to which the last certificate of approval was returned shall submit on request the annex to the certificate according to 1.16.6.4 to the authority competent to issue the new certificate of approval."

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/4 as amended by Informal document INF.35)

1.16.8 Replace "six months" by "twelve months".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/4 as amended by Informal document INF.35)

1.16.10.3 Replace "six months" by "twelve months".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/4 as amended by Informal document INF.35)

Chapter 3.2

3.2.1, Table A UN No. 2291 Insert "B" in column (8) and "A" in column (9).

(Reference document: ECE/TRANS/WP.15/AC.2/2014/5)

3.2.1 Table A For UN Nos. 2977 and 2978, insert "EP" in column (9). For UN No. 2978, delete "B" in column (8).

(Reference document: ECE/TRANS/WP.15/AC.2/2014/26)

3.2.3.1, explanatory notes concerning Table C, column (20), additional requirements/remark 5 Replace "vapour pipe" by "venting piping" (twice).

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

3.2.3.1, explanatory notes concerning Table C , column (20), additional requirement/ remark 6
Replace "vapour pipes" by "venting piping" (three times).

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

3.2.3.1, explanatory notes concerning Table C , column (20), additional requirement/ remark 7
Replace "vapour pipes" by "venting piping" (three times).

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

3.2.3.2 Table C, for UN No. 1005, UN No. 1011 (twice), UN No. 1012, UN No. 1030, UN No. 1033, UN No. 1038, UN No. 1055, UN No. 1063, UN No. 1077, UN No. 1083, UN No. 1912, UN No. 1965 (9 times), UN No. 1969 (twice), UN No. 1978 and UN No. 9000, insert "2" in column (20).

(Reference document: ECE/TRANS/WP.15/AC.2/2014/21)

3.2.3.2 Table C For UN No. 1038, insert a reference to explanatory note "42" in column (20).

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/7 and Informal document INF.15 as amended)

3.2.3.3, remark 2 for column (20) Amend to read as follows:

"Reference shall be made in column (20) to remark 2 for stabilized substances that react with oxygen and for gases for which danger 2.1 is mentioned in column (5)."

(Reference document: ECE/TRANS/WP.15/AC.2/2014/21)

3.2.4.3, L remark 2 for column (20) Amend to read as follows:

"Reference shall be made in column (20) to remark 2 for stabilized substances that react with oxygen and for gases for which danger 2.1 is mentioned in column (5)".

(Reference document: ECE/TRANS/WP.15/AC.2/2014/21)

Chapter 7.1

7.1.4.1.1 Insert the following text for Class 6.1 after "All goods of packing group II: total 300 000 kg":

"All goods carried in bulk 0 kg".

(Reference document: ECE/TRANS/WP.15/AC.2/2014/5)

7.1.4.7.1 Amend to read as follows:

"7.1.4.7.1 The dangerous goods shall be loaded or unloaded only at the places designated or approved for this purpose by the competent authority. In those places the means of evacuation mentioned in subsection 7.1.4.77 should be made available. Otherwise transshipment is permitted only with the authorization of the competent authority."

(Reference document: ECE/TRANS/WP.15/AC.2/2014/23)

Chapter 7.2

7.2.4.1.3 Modify the beginning of the first sentence to read as follows:

"On board supply vessels or other vessels delivering products for the operation of vessels, packages of dangerous goods and non-dangerous goods may be carried...".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/6 and Informal document INF.29 as amended)

7.2.4.10.1 Insert the following text at the end:

"The competent authority may accept that, until 31 December 2016 at the latest, by derogation from 8.6.3 a control list containing question 4 in the version in force until 31 December 2014 be used."

(Reference document: ECE/TRANS/WP.15/AC.2/2014/25)

7.2.4.16.8, second paragraph Replace "vapour pipes or gas discharge pipes" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

7.2.4.16.12 Replace "vapour pipe or the gas discharge piping" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

7.2.4.25.5 Replace "gas recovery or compensation pipe" by "vapour return piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

Chapter 8.1

8.1.2.1 Amend indent (a) to read as follows:

"(a) The vessel's certificate of approval referred to in 8.1.8 and the annex referred to in 1.16.1.4;"

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/4 as amended by Informal document INF.35)

8.1.2.1 (f) Amend to read as follows:

"The inspection certificate of the fire extinguishing hoses prescribed in 8.1.6.1;"

(Reference document: Informal document INF.10)

8.1.2.3 (o) Amend to read:

"The certificate concerning the refrigeration system, prescribed in 9.3.1.27.10, 9.3.2.27.10 or 9.3.3.27.10;"

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/13 as amended by Informal document INF.36)

8.1.2.7 Insert the following text at the end of the first paragraph: "A photo-optical copy of the annex referred to in 1.16.1.4 is not required."

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/4 as amended by Informal document INF.35)

8.1.2.7 Amend the second paragraph to read as follows:

"The barge-owner shall thereafter keep the certificate of approval and the annex referred to in 1.16.1.4 in his possession."

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/4 as amended by Informal document INF.35)

8.1.6.1 Amend the last sentence to read as follows:

"A certificate concerning the inspection of fire extinguishing hoses shall be carried on board."

(Reference document: Informal document INF.10)

Chapter 8.2

8.2.2.3.3.2, *Practice*, second indent Replace "vapour pipes" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

Chapter 8.6

8.6.1.3, paragraph 8 Replace "Gas supply/return line" by "Venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

8.6.1.3, table after paragraph 22 Replace "gas supply/return" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

8.6.1.3, table after paragraph 22 Replace "gas supply line" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

8.6.1.4, paragraph 8 Replace "Gas supply/return line" by "Venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

8.6.1.4, table after paragraph 15 Replace "gas supply/return line" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

8.6.1.4, table after paragraph 15 Replace "gas supply line" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

8.6.1.5 Add the following annex to the certificate of approval and provisional certificate of approval to read as follows:

"8.6.1.5 *Annex to the certificate of approval and provisional certificate of approval according to 1.16.1.3.1 (a)*

Annex to the certificate of approval 1. Official number 2. Type of vessel 3. Transitional provisions applicable as from	ADN certificate of approval No.:				
	Competent authority				
	Issued on				
	Valid until				
	Stamp and signature				

ADN certificate of approval No.:					
Competent authority					
Issued on					
Valid until					
Stamp and signature					

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/4 as amended by Informal document INF.35)

8.6.3, question (7) Replace "vapour pipe" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

8.6.3, question (12.1) Replace "is the vapour pipe, where required, or if it exists, connected with the shore gas return line?" by "is the venting piping, where required, or if it exists, connected with the vapour return piping?"

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

8.6.3, question (12.3) Replace "its gas return pipe or pressure compensation pipe" by "its vapour return piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

8.6.3 ADN checklist, insert the following new indent at the end of question 14:

"- are liquefied gas installations for domestic use cut off using the main stop valve?"

Insert "O" under the vessel column and "-" under the column loading/unloading place.

(Reference document: Informal document INF.21)

Chapter 9.3

9.3.1.8.1 In the third sentence, insert the following text before "(classification certificate)":

"and the additionally applicable rules and regulations of the classification society that are relevant for the intended use of the vessel".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/7 and Informal document INF.15 as amended)

9.3.1.21.3, second sentence Amend to read as follows:

"The permissible maximum filling levels of 91%, 95% and 97%, as given in the list of substances, shall be marked on each level gauge."

(Reference document: ECE/TRANS/WP.15/AC.2/2014/19)

9.3.1.25.2 (d) Replace "vapour pipes" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

9.3.1.25.2 (f): Replace "vapour pipe" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

9.3.1.25.2 (g): Replace "vapour pipes" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

In 9.3.1.27.10, replace "9.2.1.27.1" by "9.3.1.27.1".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/13 as amended by Informal document INF.36)

9.3.1.52.3 (b), 9.3.2.52.3 (b) and 9.3.3.52.3 (b) Insert a new (v) to read as follows:

"(v) Inland AIS (automatic identification systems) stations in the accommodation and in the wheelhouse if no part of an aerial for electronic apparatus is situated above the cargo area and if no part of a VHF antenna for AIS stations is situated within 2 m from the cargo area."

(Reference document: ECE/TRANS/WP.15/AC.2/2014/15)

9.3.2.0.1 (c) Replace "Vapour pipes and gas discharge pipes" by "Venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

9.3.2.11.2 (a) Insert the following new paragraph at the end:

"Refrigerated cargo tank fastenings shall meet the requirements of a recognised classification society."

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/13 as amended by Informal document INF.36)

9.3.2.20.1 Amend to read as follows:

"Cofferdams or cofferdam compartments remaining once a service space has been arranged in accordance with 9.3.2.11.6 shall be accessible through an access hatch."

(Reference document: ECE/TRANS/WP.15/AC.2/2014/10)

9.3.2.20.4 and 9.3.3.20.4 (ventilation of cofferdams) amend to read as follows:

"When the list of substances on the vessel according to 1.16.1.2.5 contains substances for which protection against explosion is required in column (17) of Table C of Chapter 3.2, the ventilation openings of cofferdams shall be fitted with a flame-arrester withstanding a deflagration."

(Reference document: ECE/TRANS/WP.15/AC.2/2014/24)

9.3.2.21.3 and 9.3.3.21.3, second sentence Amend to read as follows::

"The permissible maximum filling levels of 95% and 97%, as given in the list of substances, shall be marked on each level gauge."

(Reference document: ECE/TRANS/WP.15/AC.2/2014/19)

9.3.2.21 and 9.3.3.21 Insert a new paragraph to read as follows:

"9.3.x.21.10 When refrigerated substances are carried the opening pressure of the safety system shall be determined by the design of the cargo tanks. In the event of the transport of substances that must be carried in a refrigerated state the opening pressure of the safety system shall be not less than 25 kPa (0.25 bar) greater than the maximum pressure calculated according to 9.3.2.27."

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/13 as amended by Informal document INF.36)

9.3.2.22.4 (a) and 9.3.3.22.4 (a) Replace "vapour pipe" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

9.3.2.22.4 (a) last indent and 9.3.3.22.4 (a) last indent for type N closed vessels, amend to read as follows:

"- a device for the safe depressurization of the tanks. When the list of substances on the vessel according to 1.16.1.2.5 contains substances for which protection against explosion is

required in column (17) of Table C of Chapter 3.2, this device shall include at least a fire-resistant flame arrester and a stop valve which clearly indicates whether it is open or shut."

(Reference document: ECE/TRANS/WP.15/AC.2/2014/24)

9.3.2.22.5 (a) Replace "vapour pipe" by "venting piping".

9.3.2.22.5 (a) (v) Delete and replace with: "(Deleted)"

(Reference document: ECE/TRANS/WP.15/AC.2/2014/17)

9.3.2.22.5 (a), last paragraph Replace "common vapour pipe" by "common venting piping".

9.3.2.22.5 (b) Replace "vapour pipe" by "venting piping" and "a common vapour pipe" by "a common venting piping".

9.3.2.22.5 (c) Replace "vapour pipe" by "venting piping".

9.3.2.22.5 (d) Replace "vapour pipe" by "venting piping" and "a common vapour pipe" by "a common venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

9.3.2.24 and 9.3.3.24 Replace "(Reserved)" by the following text:

"9.3.x.24 Regulation of cargo pressure and temperature

9.3.x.24.1 Unless the entire cargo system is designed to resist the full effective vapour pressure of the cargo at the upper limits of the ambient design temperatures, the pressure of the tanks shall be kept below the permissible maximum set pressure of the safety valves, by one or more of the following means:

(a) a system for the regulation of cargo tank pressure using mechanical refrigeration;

(b) a system ensuring safety in the event of the heating or increase in pressure of the cargo. The insulation or the design pressure of the cargo tank, or the combination of these two elements, shall be such as to leave an adequate margin for the operating period and the temperatures expected; in each case the system shall be deemed acceptable by a recognised classification society and shall ensure safety for a minimum time of three times the operation period;

(c) other systems deemed acceptable by a recognised classification society.

9.3.x.24.2 The systems prescribed in 9.3.x.24.1 shall be constructed, installed and tested to the satisfaction of the recognised classification society. The materials used in their construction shall be compatible with the cargoes to be carried. For normal service, the upper ambient design temperature limits shall be:

air: +30° C;

water: +20° C.

9.3.x.24.3 The cargo storage system shall be capable of resisting the full vapour pressure of the cargo at the upper limits of the ambient design temperatures, whatever the system adopted to deal with the boil-off gas. This requirement is indicated by remark 37 in column (20) of Table C of Chapter 3.2."

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/13 as amended by Informal document INF.36)

9.3.2.25.2 (f) and 9.3.3.25.2 (f)/ 9.3.2.25.2 (i)/9.3.3.25.2 (h) Replace "vapour pipes" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

9.3.2.25.9 and 9.3.3.25.9 Replace "gas return piping or the compensation piping" by "vapour return piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

9.3.2.26.4 and 9.3.3.26.4 Replace "vapour pipe" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

9.3.2.27 and 9.3.3.27 Replace "(Reserved)" by the following text:

"9.3.x.27 Refrigeration system

9.3.x.27.1 The refrigeration system referred to in 9.3.x.24.1 (a) shall be composed of one or more units capable of keeping the pressure and temperature of the cargo at the upper limits of the ambient design temperatures at the prescribed level. Unless another means of regulating cargo pressure and temperature deemed satisfactory by a recognised classification society is provided, provision shall be made for one or more stand-by units with an output at least equal to that of the largest prescribed unit. A stand-by unit shall include a compressor, its engine, its control system and all necessary accessories to enable it to operate independently of the units normally used. Provision shall be made for a stand-by heat-exchanger unless the system's normal heat-exchanger has a surplus capacity equal to at least 25% of the largest prescribed capacity. It is not necessary to make provision for separate piping.

Cargo tanks, piping and accessories shall be insulated so that, in the event of a failure of all cargo refrigeration systems, the entire cargo remains for at least 52 hours in a condition not causing the safety valves to open.

9.3.x.27.2 The security devices and the connecting lines from the refrigeration system shall be connected to the cargo tanks above the liquid phase of the cargo when the tanks are filled to their maximum permissible degree of filling. They shall remain within the gaseous phase, even if the vessel has a list up to 12 degrees.

9.3.x.27.3 When several refrigerated cargoes with a potentially dangerous chemical reaction are carried simultaneously, particular care shall be given to the refrigeration systems so as to prevent any mixing of the cargoes. For the carriage of such cargoes, separate refrigeration systems, each including the full stand-by unit referred to in 9.3.x.27.1, shall be provided for each cargo. When, however, refrigeration is ensured by an indirect or combined system and no leak in the heat exchangers can under any foreseeable circumstances lead to the mixing of cargoes, no provision need be made for separate refrigeration units for the different cargoes.

9.3.x.27.4 When several refrigerated cargoes are not soluble in each other under conditions of carriage such that their vapour pressures are added together in the event of mixing, particular care shall be given to the refrigeration systems to prevent any mixing of the cargoes.

9.3.x.27.5 When the refrigeration systems require water for cooling, a sufficient quantity shall be supplied by a pump or pumps used exclusively for the purpose. This pump or pumps shall have at least two suction pipes, leading from two water intakes, one to port, the other to starboard. Provision shall be made for a stand-by pump with a satisfactory flow; this may be

a pump used for other purposes provided that its use for supplying water for cooling does not impair any other essential service.

9.3.x.27.6 The refrigeration system may take one of the following forms:

(a) Direct system: the cargo vapours are compressed, condensed and returned to the cargo tanks. This system shall not be used for certain cargoes specified in Table C of Chapter 3.2. This requirement is indicated by remark 35 in column (20) of Table C of Chapter 3.2;

(b) Indirect system: the cargo or the cargo vapours are cooled or condensed by means of a coolant without being compressed;

(c) Combined system: the cargo vapours are compressed and condensed in a cargo/coolant heat-exchanger and returned to the cargo tanks. This system shall not be used for certain cargoes specified in Table C of Chapter 3.2. This requirement is indicated by remark 36 in column (20) of Table C of Chapter 3.2.

9.3.x.27.7 All primary and secondary coolant fluids shall be compatible with each other and with the cargo with which they may come into contact. Heat exchange may take place either at a distance from the cargo tank, or by using cooling coils attached to the inside or the outside of the cargo tank.

9.3.x.27.8 When the refrigeration system is installed in a separate service space, this service space shall meet the requirements of 9.3.x.17.6.

9.3.x.27.9 For all cargo systems, the heat transmission coefficient as used for the determination of the holding time (7.2.4.16.16 and 7.2.4.16.17) shall be determined by calculation. Upon completion of the vessel, the correctness of the calculation shall be checked by means of a heat balance test. The calculation and test shall be performed under supervision by the recognized classification society which classified the vessel.

The heat transmission coefficient shall be documented and kept on board. The heat transmission coefficient shall be verified at every renewal of the certificate of approval.

9.3.x.27.10 A certificate from a recognised classification society stating that 9.3.x.24.1 to 9.3.x.24.3, 9.3.x.27.1 and 9.3.x.27.4 above have been complied with shall be submitted together with the application for issue or renewal of the certificate of approval."

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/13 as amended by Informal document INF.36)

9.3.3.0.1 (c) Replace "vapour pipes and gas discharge pipes" by "venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

9.3.3.11.2 (a) Insert the following new sentence at the end:

"Refrigerated cargo tank fastenings shall meet the requirements of a recognised classification society."

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/13 as amended by Informal document INF.36)

9.3.3.20.1 Amend to read as follows:

"Cofferdams or cofferdam compartments remaining once a service space has been arranged in accordance with 9.3.3.11.6 shall be accessible through an access hatch."

(Reference document: ECE/TRANS/WP.15/AC.2/2014/10)

9.3.3.22.5 (a) Replace "vapour pipe" by "venting piping".

9.3.2.22.5 (a), last paragraph Replace "common vapour pipe" by "common venting piping".

9.3.3.22.5 (b) Replace "vapour pipe" by "venting piping" and "a common vapour pipe" by "a common venting piping".

9.3.3.22.5 (c) Replace "vapour pipe" by "venting piping".

9.3.3.22.5 (d) Replace "vapour pipe" by "venting piping" and "a common vapour pipe" by "a common venting piping".

(Reference documents: ECE/TRANS/WP.15/AC.2/2014/11 as amended by Informal documents INF.28 and INF.36)

Document ECE/TRANS/WP.15/AC.2/2014/2 was adopted with the following modifications:

1.1.3.2 (c) The modification does not apply to the English version.

New transitional measure 1.6.1.28 Amend to read as follows:

"1.6.1.28 As an exception to the provisions of 1.6.1.1, accreditations in accordance with EN ISO/IEC 17020:2004 for the purposes of 1.8.6.8, 6.2.2.11 6.2.3.6.1 of ADR and special provisions TA4 and TT9 of 6.8.4 of ADR and 1.15.3.8 and 1.16.4.1 of these Regulations shall not be recognised after 28 February 2015."

In 1.7.1.5.1 (b) Insert "of ADR" after "6.4.4".

2.2.7.2.4.1.7 Does not apply to the English version.

3.2.1 Delete the square brackets in the proposed new entries for Table A.

5.2.1.7.5 Insert "of these Regulations" after "5.1.5.2.1".

5.2.2.1.11.1 Insert "of ADR" after "6.4.11.2".

Document ECE/ADN/2014/1 was adopted with the following modifications:

1.2.1 Definition of escape boat Amend the beginning to read as follows: "means a specially designed directly accessible boat designed to ...".

(Reference document: ECE/TRANS/WP.15/AC.2/2013/20, as amended by INF.8 (24th session))

1.2.1 Definition of evacuation boat Amend the beginning to read as follows: "means a manned and specially equipped boat called in for..."

(Reference document: ECE/TRANS/WP.15/AC.2/2013/20, as amended by INF.8 (24th session))

1.2.1 In the definition of Safe area Replace "water screen" by "water spray system" and delete the words "fire or".

(Reference document: ECE/TRANS/WP.15/AC.2/2014/25 as modified)

1.2.1 Definition of Safe haven Delete the words "fire or".

(Reference document: ECE/TRANS/WP.15/AC.2/2014/25 as modified)

1.2.1, Definition of "Types of protection" Amend to read as follows.

"Types of protection: (see IEC 60079-0:2011)

EEx (d): flameproof enclosure (IEC 60079-1:2007);

EEx (e): increased safety (IEC 60079-7:2006);

EEx (ia) and EEx (ib): intrinsic safety (IEC 60079-11:2011);

EEx (m): encapsulation (IEC 60079-18:2009);

EEx (p): pressurized apparatus (IEC 60079-2:2007);

EEx (q): powder filling (IEC 60079-5:2007);"

(Reference document: ECE/TRANS/WP.15/AC.2/2014/20)

1.2.1 Delete the proposed definition of "Water screen".

(Reference document: ECE/TRANS/WP.15/AC.2/2014/25 as modified)

1.2.1 Insert a definition of "Water spray system" to read as follows:

"Water spray system means an on-board installation that, by means of a uniform distribution of water, is capable of protecting all the vertical external surfaces of the ship's hull fore and aft, all vertical surfaces of superstructures and deckhouses and deck surfaces above the superstructures, engine rooms and spaces in which combustible materials may be stored. The capacity of the water spray system for the area to be protected should be at least 10 l/m² per minute. The water spray system shall be designed for full-year use. The spray system should be operable from the wheelhouse and the safe area."

(Reference document: ECE/TRANS/WP.15/AC.2/2014/25 as modified)

1.4.2.2.1 (d) Add the following Note:

NOTE: Before loading and unloading, the carrier shall consult the administration of the landside installation on the availability of means of evacuation."

(Reference document: ECE/TRANS/WP.15/AC.2/2014/25 as modified)

1.4.3.7.1 Amend the proposed amendment to read as follows:

"1.4.3.7.1 Insert a new (g) before the title "Additional obligations concerning the unloading of cargo tanks" to read as follows:

"(g) Ascertain that the landside installation is equipped with one or two means of evacuation from the vessel in the event of an emergency;"

The existing (g) becomes (h).

1.4.3.7.1 Delete existing (h) and (n) and the title "Additional obligations concerning the bulk unloading of dangerous solids in vessels"."

(Reference document: ECE/TRANS/WP.15/AC.2/2013/20, as amended by INF.8 (24th session))

1.6.7.2.2.2, entry for 7.2.3.20.1 "Fitting of ballast tanks and compartments with level indicators", under "Time limit and comments" after "N.R.M." insert "from 1 January 2013".

(Reference document: Informal document INF.22)

1.6.7.2.2.2 Delete the proposed provisions relating to 9.3.1.13 and 9.3.3.13 in square brackets.

3.2.3.2 Footnotes related to the list of substances, footnote 8 Modify to read as follows:

"8) No maximum experimental safe gap (MESG) has been measured in accordance with a standardized determination procedure; therefore, assignment has been made to the explosion group in compliance with IEC 60079-20-1."

(Reference document: ECE/TRANS/WP.15/AC.2/2014/20)

3.2.3.3 and 3.2.4.3 Insert the following new remark 41 for column (20):

"**Remark 41:** Reference shall be made in column (20) to remark 41 for n-BUTYLBENZENE."

3.2.3.3 and 3.2.4.3 Insert the following new remark 42 for column (20):

"**Remark 42:** Reference shall be made in column (20) to remark 42 for UN No. 1972 METHANE REFRIGERATED LIQUID or NATURAL GAS, REFRIGERATED LIQUID, with high methane content and UN No. 1038 ETHYLENE, REFRIGERATED LIQUID."

(Reference document: Informal document INF.22)

3.2.4.2, 3.1 Amend to read as follows:

"Auto-ignition temperature in accordance with IEC 60079-20-1:2010, EN 14522:2005, DIN 51 794:2003 in °C; where applicable, indicate the temperature class in accordance with IEC 60079-20-1:2010."

(Reference document: ECE/TRANS/WP.15/AC.2/2014/20)

7.1.4.77 and 7.2.4.77 Place the proposed new sentence after the table and footnotes to the table.

(Reference document: Informal document INF.22)

7.1.4.77 Insert a dot in the table for items 3, 8, 11 and 12 under Class 4.1, 4.2, 4.3.

(Reference document: ECE/TRANS/WP.15/AC.2/2014/25 as modified)

7.1.4.77 In the new table replace "cargo area" by "protected area" (14 times).

(Reference document: Informal document INF.3)

7.2.4.16.9 Delete "For cargoes that should be transported in an open type N vessel with a flame arrester:" and "For cargoes that may be transported on open type N vessels:"

(Reference document: Informal document INF.22)

7.2.4.77 Insert a dot in the table for items 3, 8, 11 and 12 under Class 2, 3 packing group I, II and rest of III.

(Reference document: ECE/TRANS/WP.15/AC.2/2014/25 as modified)

8.6.3, ADN Checklist, question 19 insert a "O" in the two columns (vessel and loading/unloading place).

(Reference document: Informal document INF.22)

8.6.3, ADN checklist, explanation to item 17, last sentence

Replace "Delete this item if it is not necessary during loading" by "Delete this item if it is not necessary during unloading".

(Reference document: Informal document INF.5)

Except when indicated otherwise, the square brackets in the document were deleted. In the case of 1.16.1.4.2 (d), 1.16.2.6, the text in square brackets was replaced by text adopted at the present session.
