



**Economic and Social  
Council**

Distr.  
GENERAL

ECE/TRANS/WP.15/AC.2/2009/28  
18 June 2009

ENGLISH  
Original: FRENCH

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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)

Fifteenth session  
Geneva, 24-28 August 2009  
Agenda item 4 (b)

**PROPOSALS FOR AMENDMENTS TO THE REGULATIONS ANNEXED TO ADN**

**Report of the informal working group on transitional measures**

**Communication by the German Government<sup>1, 2</sup>**

**Introduction**

1. At the fourteenth session of the ADN Safety Committee (WP.15/AC.2) in January 2009, the delegations of Germany, the Netherlands and Switzerland submitted an informal document on the transitional measures in ADN Chapter 1.6 (informal document INF.8).

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<sup>1</sup> Distributed in German by the Central Commission for the Navigation of the Rhine under the symbol CCNR/ZKR/ADN/WP.15/AC.2/2009/28.

<sup>2</sup> In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.7 (b)).

2. The Safety Committee noted with interest an initial summary of the study on transitional measures (report of the session held from 26 to 29 January 2009, ECE/TRANS/WP.15/AC.2/30, paras. 20-22). The study had been carried out as part of the work of the Central Commission for the Navigation of the Rhine (CCNR). Its authors (Transafe (NL), DST (D) and TNO (NL)) assessed the impact of the transitional measures on the safety of carriage by vessel of dangerous goods, and on the environment of inland waterways. The aim also included an assessment of the economic impact of reducing the transitional measures.

3. The Safety Committee noted that in order to obtain a more general assessment in the framework of ADN, it would be useful to take into account non-Rhine vessels as well. An amendment of the transitional provisions could thus produce the greatest possible benefit for safety and environmental protection, taking into account the economic consequences.

4. The Safety Committee decided to set up an informal working group to further consider the study and to prepare possible proposals for limiting the transitional provisions.

### **Information on the first session of the informal working group**

#### **Holding of the session**

5. The session was organized by Germany and was held from 28 to 30 April 2009, at the invitation of the Federal Ministry of Transport, Building and Urban Affairs, in Bonn.

6. Representatives of Austria, France, Germany, the Netherlands and Switzerland (as chair), of the CCNR Secretariat, of European inland navigation professional organizations and the Germanischer Lloyd classification society took part in the meeting.

#### **Discussion**

7. The basis for the discussion and for the drafting of a proposal to limit the transitional provisions was provided by various reports containing the conclusions of the study, excerpts from reports presenting the assessments and recommendations of the authors, and the Belgian position (as set out in informal document WP.15/AC.2/15/INF.2) on the informal document submitted to the Administrative Committee (informal document WP.15/AC.2/14/INF.8).

8. It was once again pointed out that the judgements and recommendations contained in the study were based on estimates. For the informal working group, the primary concerns of its assessments and recommendations should be safety and environmental protection. The new requirements for the transport of environmentally hazardous goods would greatly influence the development of the tank vessel fleet. Between 2013 and 2019, an increasing number of goods would have to be carried in double-hulled tank vessels. The tanker fleet would thus have to undergo considerable modernization, which would have economic consequences much more drastic than the general reduction of transitional measures.

9. To ensure better planning of the measures to be taken for vessels in service, it was agreed that the deadlines for the transitional provisions would be staggered. The criteria agreed for

reducing the duration of the transitional provisions were safety benefits, cost and feasibility. Thus, construction changes that were particularly difficult to realize were assigned long-term deadlines.

10. The deadlines were selected by analogy with those set when the transitional provisions were reduced for European Directive 2006/87/EC laying down technical requirements for inland waterway vessels and for the Rhine Vessels Inspection Regulations. The proposal takes into account the transitional deadlines already established for the transport of environmentally hazardous goods.

### **Proposal for the staggered introduction of ADN transitional provisions**

11. The group proposed:

Immediate elimination of the transitional provision	1 January 2011 (next version of ADN) or renewal of the certificate of approval after 1 January 2011
Short-term elimination of the transitional provision	Renewal of the certificate of approval after 1 January 2019
Medium-term elimination of the transitional provision	Renewal of the certificate of approval after 1 January 2035
Long-term elimination of the transitional provision	Renewal of the certificate of approval after 1 January 2045

For oil separator vessels and supply vessels with a dead weight of less than 300 tonnes, in principle, the transitional deadline “until 31 December 2038” remained valid.

### **Proposal for the reduction of ADN transitional provisions**

12. The transitional provisions of 1.6.7 of ADN were considered and were limited in time by the working group for both dry cargo vessels and for tank vessels. These time limitation proposals and the additional observations are annexed to this report, included in Tables 1.6.7.2.1.1 and 1.6.7.2.2.2. Changes in respect of the current requirements are thus quite clear.

### **Further work**

13. In accordance with the mandate given by the Safety Committee, the informal working group’s proposal for the reduction of the transitional provisions of ADN would be presented to the Safety Committee at its fifteenth session, from 24 to 28 August 2009. A new meeting of the informal working group would not be required before the next session of the Safety Committee.

14. The Ministers from Switzerland, Germany and the Netherlands could make the very voluminous study report available upon request to the interested parties, i.e., professionals, through professional organizations and the public services working within the scope of ADN. However, the reports should not be widely circulated, as they required additional explanations; it would be disproportionately expensive to translate all the documentation.

**Annex**

**CHAPTER 1.6**

**TRANSITIONAL MEASURES**

**1.6.7.2**      *General transitional provisions*

1.6.7.2.1      *General transitional provisions for dry cargo vessels*

1.6.7.2.1.1      Vessels in service shall meet:

- (a)      The requirements of paragraphs mentioned in the table below within the period established therein;
- (b)      The requirements of paragraphs not mentioned in the table below at the date of application of these Regulations.

The construction and equipment of vessels in service shall be maintained at least at the previous standard of safety.

1.6.7.2.1.1 Table of general transitional provisions: Dry cargo		
Paragraphs	Subject	Time limit and comments
9.1.0.12.1	Ventilation of holds	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2018</u></p> <p><u>Until then, the</u> <del>The</del> following requirements apply on board vessels in service:</p> <p>Each hold shall have appropriate natural or artificial ventilation; for the carriage of substances of Class 4.3, each hold shall be equipped with forced-air ventilation; the appliances used for this purpose must be so constructed that water cannot enter the hold.</p>
9.1.0.12.3	Ventilation of service spaces	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2018</u></p>
9.1.0.17.2	Gas-tight openings facing holds	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2018</u></p> <p><u>Until then, the</u> <del>The</del> following requirements apply on board vessels in service:</p> <p>Openings of accommodation and the wheelhouse facing the holds must be capable of being tightly closed.</p>
9.1.0.17.3	Entrances and openings in the protected area	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2018</u></p> <p><u>Until then, the</u> <del>The</del> following requirements apply on board vessels in service:</p> <p>Openings of accommodation and the wheelhouse facing the holds must be capable of being tightly closed.</p>
9.1.0.31.2	Air intakes of engines	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2034</u></p>
9.1.0.32.2	Air pipes 50 cm above the deck	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2018</u></p>
9.1.0.34.1	Position of exhaust pipes	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2018</u></p>

1.6.7.2.1.1 Table of general transitional provisions: Dry cargo		
Paragraphs	Subject	Time limit and comments
9.1.0.35	Stripping pumps in the protected area	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2018</u></p> <p><u>Until then, the</u> <del>The</del> following requirements apply on board vessels in service:</p> <p>In the event of the carriage of substances of Class 4.1, UN No. 3175, of all substances of Class 4.3 in bulk or unpackaged and polymeric beads, expandable, of Class 9, UN No. 2211, the stripping of the holds may only be effected using a stripping installation located in the protected area. The stripping installation located above the engine room must be clamped.</p>
9.1.0.40.1	Fire extinguishers, two pumps, etc.	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2018</u></p>
9.1.0.40.2	Fire extinguishing systems permanently fixed in engine rooms	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2034</u></p>
9.1.0.41 in conjunction with 7.1.3.41	Fire and naked light	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2018</u></p> <p><u>Until then, the</u> <del>The</del> following requirements apply on board vessels in service:</p> <p>Outlets of funnels shall be located not less than 2 m from the nearest point on hold hatchways. Heating and cooking appliances shall be permitted only in metal-based accommodation and wheelhouses.</p> <p>However:</p> <ul style="list-style-type: none"> <li>• Heating appliances fuelled with liquid fuels having a flashpoint above 55° C shall be permitted in engine rooms</li> <li>• Central-heating boilers fuelled with solid fuels shall be permitted in spaces situated below deck and accessible only from the deck</li> </ul>
9.2.0.31.2	Air intakes of engines	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2034</u></p>

1.6.7.2.1.1 Table of general transitional provisions: Dry cargo		
Paragraphs	Subject	Time limit and comments
9.2.0.34.1	Position of exhaust pipes	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.2.0.41 in conjunction with 7.1.3.4.1	Fire and naked light	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u> <u>Until then, the</u> <del>The</del> following requirements apply on board vessels in service: Outlets of funnels shall be located not less than 2 m from the nearest point on hold hatchways. Heating and cooking appliances shall be permitted only in metal-based accommodation and wheelhouses. However: <ul style="list-style-type: none"> <li>• Heating appliances fuelled with liquid fuels having a flashpoint above 55° C shall be permitted in engine rooms</li> <li>• Central-heating boilers fuelled with solid fuels shall be permitted in spaces situated below deck and accessible only from the deck</li> </ul>

1.6.7.2.1.2 *(Deleted)*

1.6.7.2.2 *General transitional provisions for tank vessels*

1.6.7.2.2.1 Vessels in service shall meet:

- (a) The requirements of paragraphs mentioned in the table below within the period established therein;
- (b) The requirements of paragraphs not mentioned in the table below at the date of application of these Regulations.

The construction and equipment of vessels in service shall be maintained at least at the previous standard of safety.

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
1.2.1	Limited explosion risk electrical apparatus	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2034</u></p> <p>Until then, the <del>The</del> following requirements apply on board vessels in service:</p> <p>Limited explosion risk electrical apparatus is:</p> <ul style="list-style-type: none"> <li>• Electrical apparatus which, during normal operation, does not cause sparks or exhibit surface temperatures exceeding 200° C or</li> <li>• Electrical apparatus with a spray-water protected housing which, during normal operation, does not exhibit surface temperatures above 200° C</li> </ul>
1.2.1	Hold space	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2038</u></p> <p><del>Not applicable to</del> For Type N open vessels whose hold spaces contain auxiliary appliances and which are carrying only substances of Class 8, with remark 30 in column (20) of Table C of Chapter 3.2.</p>
1.2.1	Flame arrester High velocity vent valve Test according to standard EN 12 874 (1999)	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2034</u></p> <p>Until then, the <del>The</del> following requirements are applicable on board vessels in service:</p> <p>Flame arresters and high velocity vent valves shall be of a type approved by the competent authority for the use prescribed.</p>
7.2.2.6	Approved gas detection system	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2010</u></p>
7.2.2.19.3	Vessels used for propulsion	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2044</u></p>



1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
7.2.3.20	Use of cofferdams for ballasting	N.R.M. <u>Renewal of the certificate of approval after 31 December 2038</u> <u>Until then, the</u> The following requirements are applicable on board vessels in service: Cofferdams may be filled with water during unloading to provide trim and to permit residue-free drainage if possible.
7.2.3.20.1	Ballast water Prohibition against filling cofferdams with water	N.R.M. <u>Renewal of the certificate of approval after 31 December 2038</u> <u>Until then, the</u> The following requirements apply on board vessels in service: Cofferdams may be filled with ballast water only when cargo tanks are empty.
7.2.3.20.1	Proof of stabilization in the event of a leak connected with ballast water for Type G vessels	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
7.2.3.25.1 (e)	<del>Connections prohibited between pipes for loading and unloading and pipes located outside the cargo area</del>	<del>N.R.M. for oil separator vessels</del>
7.2.3.31.2	Motor vehicles only outside the cargo area: Type N open	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u> <u>Until then, the</u> The following requirements apply on board vessels in service: The vehicle shall not be started on board.
7.2.3.42.3	<del>Use of the cargo heating system</del>	<del>Not applicable to vessels in service of Type N open.</del>
7.2.3.51.3	Live sockets for Type G and Type N vessels	N.R.M. <u>Renewal of the certificate of approval after 31 December 2010</u>

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
7.2.4.16.15	Start of loading flow	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
7.2.4.22.1	Opening of openings Type N open	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u> <del>Until then, on</del> On board vessels in service cargo tank hatches may be opened during loading for control and sampling.
8.1.2.3 (c)	<del>Damage control plan: Type G</del>	<del>N.R.M.</del>
8.1.2.3 (e)	<del>Documents concerning intact stability</del>	<del>N.R.M.</del>
8.1.2.3 (i)	Loading and unloading instructions	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
8.1.6.2	<del>Compliance of hoses and hose assemblies with standards EN 12115:1999, EN 13765:2003, EN ISO 10380:2003</del>	<del>Hoses and hose assemblies on board at 1 January 2007 which do not comply with the applicable standards may be used up to 31 December 2009 at the latest</del>
9.3.2.0.1 (c) 9.3.3.0.1 (c)	Protection of vapour pipes against corrosion	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u>
9.3.1.0.3 (d) 9.3.2.0.3 (d) 9.3.3.0.3 (d)	Fire-resistant materials of accommodation and wheelhouse	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u>
9.3.3.8.1	Classification of Type N open vessels with flame arresters and Type N open vessels	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
9.3.3.8.1	Continuation of class for Type N open vessels with flame arresters and Type N open vessels	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u> <del>Until then, the</del> The following requirements apply on board vessels in service: Except where otherwise provided, the type of construction, the strength, the subdivision, the equipment and the gear of the vessel shall conform or be equivalent to the construction requirements for classification in the highest class of a recognized classification society.
9.3.1.10.2 9.3.2.10.2 9.3.3.10.2	Door coamings, etc.	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u> <del>Until then, the</del> The following requirements apply on board vessels in service, with the exception of Type N open vessels: This requirement may be met by fitting vertical protection walls not less than 0.50 m in height; <del>Until then, on</del> On-board vessels in service less than 50.00 m long, the height of 0.50 m may be reduced to 0.30 m in passageways leading to the deck.
9.3.1.10.3 9.3.2.10.3 9.3.3.10.3	Height of sills of hatches and openings above the deck	N.R.M. <u>Renewal of the certificate of approval after 31 December 2010</u>
9.3.1.11.1 (b)	Ratio of length to diameter of pressure cargo tanks	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u> <del>Not applicable to</del> For Type G vessels whose keels were laid before 1 January 1977.
9.3.3.11.1 (d)	Limitation of length of cargo tanks	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.1.11.2 (a)	Arrangement of cargo tanks Distance between cargo tanks and side walls	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u> <del>Not applicable to</del> For Type G vessels whose keels were laid before 1 January 1977.

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
	Height of saddles, spacers	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2044</u></p> <p><del>Until then, the</del> The following requirements apply on board vessels in service:</p> <p>Where tank volume is more than 200 m<sup>3</sup> or where the ratio of length to diameter is less than 7 but more than 5, the hull in the tank area shall be such that, in the event of a collision, the tanks remain intact as far as possible. This requirement shall be considered as having been met where, in the tank area, the vessel:</p> <ul style="list-style-type: none"> <li>• is double-hulled with a distance of at least 80 cm between the side plating and the longitudinal bulkhead</li> <li>• or is designed as follows: <ul style="list-style-type: none"> <li>(a) Between the gangboard and the top of the floorplates there shall be side stringers at regular intervals of not more than 60 cm;</li> <li>(b) The side struts shall be supported by web frames spaced at intervals of not more than 2.00 m. The height of the web frames shall be not less than 10% of the depth and in any event not less than 30 cm. They shall be fitted with a face plate made of flat steel having a cross section of not less than 15 cm<sup>2</sup>;</li> <li>(c) The side stringers referred to in (a) shall have the same height as the web frames and be fitted with a face plate made of flat steel having a cross section of not less than 7.5 cm<sup>2</sup>.</li> </ul> </li> </ul>
9.3.1.11.2 (a)	Distance between suction wells and floor plates	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2044</u></p>
9.3.1.11.2 (b) 9.3.2.11.2 (b) 9.3.3.11.2 (a)	Cargo tank fastenings	<p>N.R.M.</p> <p><u>Renewal of the certificate of approval after 31 December 2044</u></p>

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
9.3.1.11.2 (c) 9.3.2.11.2 (c) 9.3.3.11.2 (b)	Capacity of suction well	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.1.11.2 (d) 9.3.2.11.2 (d)	Side struts between the hull and the cargo tanks	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.1.11.3 (a)	End bulkheads of cargo area with “A-60” insulation. Distance of 0.50 m from cargo tanks in hold spaces	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.2.11.3 (a) 9.3.3.11.3 (a)	Width of cofferdams of 0.60 m Hold spaces with cofferdams or “A-60” insulated bulkheads Distance of 0.50 m from cargo tanks in hold spaces	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>  Until then, the following requirements apply on board vessels in service: Type C: minimum width of cofferdams: 0.50 m; Type N: minimum width of cofferdams: 0.50 m, on board vessels with a deadweight of up to 150 t: 0.40 m; Type N open: cofferdams shall not be required with deadweight up to 150 t: The distance between cargo tanks and end bulkheads of hold spaces shall be at least 0.40 m.
9.3.3.11.4	Passages through the end bulkheads of hold spaces	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>  <del>Shall not apply to</del> For Type N open vessels whose keels were laid before 1 January 1977.
9.3.3.11.4	Distance of piping in relation to the bottom	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.3.11.6 (a)	Form of cofferdam arranged as a pump room	<u>Renewal of the certificate of approval after 31 December 2044</u>  <del>Shall not apply to</del> For Type N vessels whose keels were laid before 1 January 1977.

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
9.3.1.11.7 9.3.3.11.8	Arrangement of service spaces located in the cargo area below decks	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.3.11.7	Distance to the outer wall	N.R.M. <u>Renewal of the certificate of approval after 31 December 2038</u>
9.3.3.11.7	Distance between the cargo tanks and the outer wall of the vessel	N.R.M. after 01-01-2001 Renewal of certificate of approval after 31-12-2038
9.3.3.11.7	Width of double hull  Distance between the suction well and the bottom spaces	N.R.M. after 01-01-2007 Renewal of certificate approval after 31-12-2038 N.R.M. after 01-01-2003 Renewal of certificate of approval after 01-01-2038
9.3.1.11.8 9.3.3.11.9	Dimensions of openings for access to spaces within the cargo area	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.1.11.8 9.3.2.11.10 9.3.3.11.9	Interval between reinforcing elements	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.2.12.1 9.3.3.12.1	Ventilation opening in hold spaces	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.1.12.2 9.3.3.12.2	Ventilation systems in double-hull spaces and double bottoms	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.1.12.3 9.3.2.12.3 9.3.3.12.3	Height above the deck of the air intake for service spaces located below deck	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.1.12.6 9.3.2.12.6 9.3.3.12.6	Distance of ventilation inlets from cargo area	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.1.12.6 9.3.2.12.6 9.3.3.12.6	Permanently installed flame screens	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
9.3.3.12.7	Approval of flame arresters	<u>Renewal of the certificate of approval after 31 December 2018</u> <del>Shall not apply to</del> For Type N vessels whose keels were laid before 1 January 1977.
9.3.1.13 9.3.3.13	General stability	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.3.13.3 paragraph 2	Stability (general)	N.R.M. <u>as from 1 January 2007</u> <u>Renewal of the certificate of approval after 31 December 2044 after 1 January 2007</u>
9.3.1.14 9.3.3.14	Intact stability	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.2.14.2	Stability (intact)	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.3.14.2 (b) and (c)	Stability (intact)	N.R.M. after 1 January 2007
9.3.1.15	Stability (damaged condition)	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.3.15	Stability (damaged condition)	N.R.M. after 01-01-2007 <u>Renewal of certificate of approval after 31 December 2044 1 January 2038</u>
9.3.1.16.1 9.3.3.16.1	Distance of openings of engine rooms from the cargo area	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.3.16.1	Internal combustion engines outside the cargo area for Type N open vessels	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u>
9.3.1.16.2 9.3.3.16.2	Hinges of doors facing the cargo area	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u> <del>Shall not apply to</del> for vessels whose keels were laid before 1 January 1977 where alterations would obstruct other major openings.

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
9.3.3.16.2	Engine rooms accessible from the deck for Type N open vessels	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u>
9.3.1.17.1 9.3.3.17.1	Accommodation and wheelhouse outside the cargo area	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u> <del>Shall not apply to</del> for vessels whose keels were laid before 1 January 1977, provided that there is no connection between the wheelhouse and other enclosed spaces. <u>Renewal of the certificate of approval after 31 December 2034</u> <del>Shall not apply to</del> for vessels up to 50 m in length whose keels were laid before 1 January 1977 and whose wheelhouses are located in the cargo area even if it provides access to another enclosed space, provided that safety is ensured by appropriate service requirements of the competent authority.
9.3.3.17.1	Type N open	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.1.17.2 9.3.2.17.2 9.3.3.17.2	Arrangement of entrances and openings of forward superstructures Entrances facing the cargo area	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>  N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u> <del>for Shall not apply to</del> vessels up to 50.00 m in length whose keels were laid before 1 January 1977, provided that gas screens are installed.
9.3.3.17.2	Entrances and openings on Type N open vessels	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.3.17.3	Entrances and openings must be capable of being closed Type N open	N.R.M. <u>Renewal of the certificate of approval after 31 December 2010</u>
9.3.1.17.4 9.3.3.17.4	Distance of openings from the cargo area	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>



1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
9.3.3.17.5 (b), (c)	Approval of shaft passages and displaying of instructions Type N open	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.1.17.6 9.3.3.17.6	Pump-room below deck	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u> Until then, the following requirements apply on board vessels in service: Pump-rooms below deck shall <ul style="list-style-type: none"> <li>• Meet the requirements for service spaces: <ul style="list-style-type: none"> <li>• For Type G vessels: 9.3.1.12.3</li> <li>• For Type N vessels: 9.3.3.12.3</li> </ul> </li> <li>• Be equipped with a gas detection system referred to in 9.3.1.17.6 or 9.3.3.17.6</li> </ul>
9.3.2.20.1 9.3.3.20.1	<del>Access and ventilation openings 0.50 m above the deck</del>	<del>N.R.M.</del>
9.3.2.20.2 9.3.3.20.2	Intake valve	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.3.20.2	Filling of cofferdams with pump Type N open	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.2.20.2 9.3.3.20.2	Filling of cofferdams within 30 minutes	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.3.21.1 (b)	Liquid level gauge Type N open with flame-arrester and Type N open	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u> Until then, on board vessels in service fitted with gauging openings, such openings shall: <ul style="list-style-type: none"> <li>• Be arranged so that the degree of filling can be measured using a sounding rod</li> <li>• Be fitted with an automatically-closing cover</li> </ul>
9.3.3.21.1 (c)	<del>Level alarm device</del>	<del>Not applicable to open Type N vessels in service permitted only to carry SULPHUR, MOLTEN, UN No. 2448.</del>

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
9.3.1.21.1 (d) 9.3.2.21.1 (d) 9.3.3.21.1 (d)	Sensor for actuating the facility against overflowing	Applicable only to vessels to be loaded in a Contracting Party where the shore installation is equipped accordingly.
9.3.2.21.1 (e) 9.3.3.21.1 (e)	Instrument for measuring pressure in the cargo tank	Up to 31 December 2010 on board vessels in service which do not carry substances for which remarks 5, 6 or 7 are included in column (20) of Table C of Chapter 3.2, the instrument for measuring pressure in the cargo tank conforms to requirements when the vapour pipe is equipped with such an instrument at its front and rear extremities.
9.3.3.21.1 (g)	Sampling opening Type N open	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.1.21.4 9.3.2.21.4 9.3.3.21.4	Independent liquid-level alarm device	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.1.21.5 (a) 9.3.2.21.5 (a) 9.3.3.21.5 (a)	Socket close to the shore connections and cut-out of vessel's pump	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.1.21.5 (b) 9.3.2.21.5 (b) 9.3.3.21.5 (d)	Installation of on-board pump switch-off from the shore	Renewal of the certificate of approval after <del>1 January 2007</del> <u>31 December 2006</u>
9.3.2.21.5 (c)	Device for rapid shutting off of supply	N.R.M. Renewal of the certificate of approval after 31 December 2008
9.3.1.21.7 9.3.2.21.7 9.3.3.21.7	Vacuum or over-pressure alarms in cargo tanks for the carriage of substances <u>without</u> remark 5 in column (20) of Table C of Chapter 3.2	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.2.21.7 9.3.3.21.7	<del>Vacuum or over-pressure alarms in cargo tanks for the carriage of substances <u>with</u> remark 5 in column (20) of Table C of Chapter 3.2.</del>	<del>N.R.M. Vessels furnished with a certificate of approval valid at 31 December 2000 shall meet these requirements no later than 31 December 2010.</del>
9.3.1.21.7 9.3.2.21.7 9.3.3.21.7	Temperature alarms in cargo tanks	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
<del>9.3.3.21.12</del>	<del>Self-closing lid</del>	<del>N.R.M.</del>
9.3.1.22.1 (b)	Distance of cargo tank openings above the deck	<u>N.R.M.</u> <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.3.22.1 (b)	Cargo tank openings 0.50 m above the deck	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044 for</u> <del>Shall not apply to</del> vessels whose keels were laid before 1 January 1977.
9.3.1.22.4	Prevention of spark-formation by closure devices	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.1.22.3 9.3.2.22.4 (b) 9.3.3.22.4 (b)	Position of outlets of valves above the deck	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.2.22.4 (b) 9.3.3.22.4 (b)	Pressure setting of high velocity vent valves	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
<del>9.3.2.22.5</del> <del>9.3.3.22.5</del>	<del>Flame arrester or Valves or Individual gas discharge pipe or Shut-off devices</del>	<del>N.R.M.</del> <del>Vessels furnished with a certificate of approval valid at 31 December 1998 shall meet these requirements no later than 31 December 2010</del>
<del>9.3.2.22.5 (a)</del>	<del>Fire-fighting installation</del>	<del>31 December 2010</del>
9.3.3.23.2	Test pressure for cargo tanks	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u> <u>Until then, for</u> <del>Shall not apply to</del> vessels whose keels were laid before 1 January 1977, for which a test pressure of 15 kPa (0.15 bar) is required, <del>A</del> <u>a</u> test pressure of 10 kPa (0.10 bar) shall be sufficient. <u>Until then, on</u> <del>On</del> board oil-separator vessels in service before 1 January 1999, a test pressure of 5 kPa (0.05 bar) is sufficient.
9.3.3.23.3	Test pressure for pipes for loading and unloading	N.R.M. <u>Renewal of the certificate of approval after 31 December 2038</u> <u>Until then, on</u> <del>On</del> board oil-separator vessels in service before 1 January 1999 a test pressure of 400 kPa is sufficient.

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
9.3.2.25.1 9.3.3.25.1	Shut-down of cargo pumps	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.1.25.1 9.3.2.25.1 9.3.3.25.1	Distance of pumps, etc. from accommodation, etc.	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.3.25.2 (a)	<del>Pipes for loading and unloading located in the below-deck area</del>	N.R.M. for oil separator vessels
9.3.1.25.2 (d) 9.3.2.25.2 (d)	Position of loading and unloading pipes on deck	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.1.25.2 (e) 9.3.2.25.2 (e) 9.3.3.25.2 (e)	Distance of shore connections from accommodation, etc.	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u>
9.3.2.25.2 (g)	<del>Pipes for loading and unloading, and vapour pipes, shall not have flexible connections fitted with sliding seals</del>	N.R.M. after 31-12-2008 <del>On board vessels in service having connections with sliding seals, substances with toxic or corrosive properties (see column (5) of Table C of Chapter 3.2, hazards 6.1 and 8) may no longer be transported following renewal of the certificate of approval after 31-12-2008.</del>
9.3.3.25.2 (h)	<del>Pipes for loading and unloading, and vapour pipes, shall not have flexible connections fitted with sliding seals when substances with corrosive properties (see column (5) of Table C of Chapter 3.2, hazard 8) are transported</del>	N.R.M. after 31-12-2008 <del>On board vessels in service having connections with sliding seals, substances with corrosive properties (see column (5) of Table C of Chapter 3.2, hazard 8) may no longer be transported following renewal of the certificate of approval after 31-12-2008.</del>
9.3.1.25.2 (i) 9.3.2.25.2 (j) 9.3.3.25.2 (k)	Position of cargo piping	N.R.M.
9.3.2.25.8 (a)	Ballasting suction pipes located within the cargo area but outside the cargo tanks	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
9.3.2.25.9 9.3.3.25.9	Loading and unloading flow	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u> <del>The loading flows mentioned in the certificate of approval shall be checked if necessary when the certificate of approval is renewed.</del>
9.3.3.25.12	9.3.3.25.1 (a) and (c), 9.3.3.25.2 (e), 9.3.3.25.3 and 9.3.3.25.4 (a) are not applicable with the exception of Type N open carrying corrosive substances (see Chapter 3.2, Table C, column (5), hazard 8)	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u> This time limit concerns only Type N open vessels carrying corrosive substances (see Chapter 3.2, Table C, column (5), hazard 8).
9.3.1.27.2	Refrigeration system List of 12° instead of 10°	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.2.28	<del>Water spray installation required in Table C of Chapter 3.2</del>	<del>Renewal of the certificate of approval after 31 December 2004.</del>
9.3.1.31.2 9.3.2.31.2 9.3.3.31.2	Distance of engine air intakes from the cargo area	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u>
9.3.1.31.4 9.3.2.31.4 9.3.3.31.4	Temperature of outer parts of engines, etc.	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u> <del>Until then, the</del> The following requirements apply on board vessels in service: The temperature of outer parts shall not exceed 300° C.
9.3.1.31.5 9.3.2.31.5 9.3.3.31.5	Temperature in the engine room	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u> <del>Until then, the</del> The following requirements apply on board vessels in service: The temperature in the engine room shall not exceed 45° C.

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
9.3.1.32.2 9.3.2.32.2 9.3.3.32.2	Openings of air pipes 0.50 m above the deck	N.R.M. <u>Renewal of the certificate of approval after 31 December 2010</u>
9.3.3.34.1	Exhaust pipes	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.1.35.1 9.3.3.35.1	Stripping and ballast pumps in the cargo area	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u>
9.3.3.35.3	Suction pipes for ballasting located within the cargo area but outside the cargo tanks	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.1.35.4	Stripping installation of the pump-room outside the pump-room	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.1.40.1 9.3.2.40.1 9.3.3.40.1	Fire extinguishing systems, two pumps, etc.	N.R.M. <u>Renewal of the certificate of approval after 31 December 2018</u>
9.3.1.40.2 9.3.2.40.2 9.3.3.40.2	Fixed fire extinguishing system in engine room	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u>
9.3.1.41.1 9.3.3.41.1	Outlets of funnels located not less than 2 m from the cargo area	N.R.M. <u>Renewal of the certificate of approval after 31 December 2044</u> <del>Not applicable to</del> for vessels whose keels were laid before 1 January 1977.
9.3.3.41.1	Outlets of funnels	N.R.M. for oil-separator vessels, <u>at the latest by 1 January 2039</u>
9.3.1.41.2 9.3.2.41.3 9.3.3.41.2 in conjunction with 7.2.3.41	Heating, cooking and refrigerating appliances	N.R.M. <u>Renewal of the certificate of approval after 31 December 2010</u>

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
9.3.3.42.2	Cargo heating system: Type N open	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u> <del>Until then, the</del> The following requirements apply on board vessels in service: This can be achieved by an oil separator fitted to the condensed water return pipe.
9.3.1.51.2 9.3.2.51.2 9.3.3.51.2	Visual and audible alarm	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u>
9.3.1.51.3 9.3.2.51.3 9.3.3.51.3	Temperature class and explosion group	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u>
9.3.3.52.1 (b), (c), (d) and (e)	Electrical installations: Type N open	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u>
9.3.1.52.1 (e) 9.3.3.52.1 (e)	Electrical installations of the “certified safe” type in the cargo area	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u> <del>Shall not apply to</del> for vessels whose keels were laid before 1 January 1977. <del>Until then, the</del> The following conditions shall be met during loading, unloading and gas-freeing on board vessels having non-gastight wheelhouse openings (e.g. doors, windows, etc.) giving on to the cargo area: (a) All electrical installations designed to be used shall be of a limited explosion-risk type, i.e. they shall be so designed that there is no sparking under normal operating conditions and the temperature of their outer surfaces does not rise above 200° C, or be of a type protected against water spray the temperature of whose outer surfaces does not exceed 200° C under normal operating conditions; (b) Electrical installations which do not meet the requirements of (a) above shall be marked in red and it shall be possible to switch them off by means of a central switch.
9.3.3.52.2	Accumulators located outside the cargo area Type N open	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u>

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1.6.7.2.2.2 Table of general transitional provisions: Tank vessels		
Paragraphs	Subject	Time limit and comments
9.3.3.52.5	Cut-out switch for continuously driven generator: Type N open	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u>
9.3.3.52.6	Permanently fitted sockets: Type N open	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u>
9.3.1.56.1 9.3.3.56.1	Metallic sheaths for all cables in the cargo area	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034 for</u> <del>Shall not apply to</del> vessels whose keels were laid before 1 January 1977.
9.3.3.56.1	Metallic sheath for all cables in the cargo area	N.R.M. for oil-separator vessels, <u>by 1 January 2039 at the latest</u>
<del>9.3.1.56.3</del> <del>9.3.2.56.3</del> <del>9.3.3.56.3</del>	<del>Movable cables in the cargo area</del>	N.R.M.

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