

Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods

English

23 January 2017

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)

Thirtieth session

Geneva, 23 - 27 January 2017

Item 5 (b) of the provisional agenda

**Proposals for amendments to the Regulations annexed to ADN:
other proposals**

**Modifications to informal document INF.13
(ECE/TRANS/WP.15/AC.2/2016/30 and Corr.1) adopted at
the twenty-ninth session of the ADN Safety Committee**

Note by the Secretariat

Related documents: ECE/TRANS/WP.15/AC.2/2016/30 and Corr.1 and informal document INF.13 of the twenty-ninth session.

Annex 1

Proposals to implement the new zone concept in ADN

1.2 Definitions

<i>Types of protection</i> <i>Types de protection</i> <i>Zündschutzarten</i> <i>Типы защиты:</i>	Replace “EEx (e): increased safety (IEC 60079-7:2006 <u>or at least equivalent</u>)” by “EEx (e): increased safety (IEC 60079-7:2015 <u>or at least equivalent</u>)”	Clarification New zone concept
---	--	---

1.6.7.2 Transitional Measures, amend to read as follows:

1.6.7.2.1.1 Table of general transitional provisions: Dry cargo			Reason / Explanation
Paragraphs	Subject	Time limit and comments	
<u>7.1.2.19.1</u>	<u>Vessels used for propulsion</u> <u>Adoption to the new requirements in 9.1.0.12.4, 9.1.0.40.2, 9.1.0.51 and 9.1.0.52</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u> <u>Until then, the requirements of 7.2.2.19.1 which applied in ADN until 31 December 2018 apply on board vessels in service,</u>	New transitional provision
<u>7.1.3.41</u>	<u>Smoking</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2020</u>	New transitional provision
<u>7.1.3.51.1</u>	<u>Non-electrical installations and equipment</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2024</u>	New transitional provision
<u>7.1.4.13.1</u>	<u>Disconnection of installations and equipment marked in red</u>	<u>N.R.M. from 1 January 2019</u>	New transitional

	<u>areas</u>	<u>Renewal of the certificate of approval after 31 December 2034</u>	provision Like tank vessels
<u>7.1.4.13.1</u>	<u>Installations and equipment generating surface temperatures above 200°C</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	New transitional provision Like tank vessels
<u>7.1.4.53</u>	<u>Lighting in explosion hazardous area zone 2</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2022</u>	editorial
<u>8.1.2.2 (e) – (h)</u>	<u>Documents which have to be available on board</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2020</u>	New transitional provision
<u>8.6.1.1</u> <u>8.6.1.2</u>	<u>Change in certificate of approval</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2018</u>	New transitional provision
<u>9.1.0.12.3</u>	<u>Ventilation of accommodation, wheelhouse</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	New transitional provision
<u>9.1.0.12.3</u>	<u>Provision of accommodation, wheelhouse and service spaces in case surface temperatures higher than mentioned in 9.1.0.51 occur or electrical equipment not fulfilling the requirements given in 9.1.0.52.1 is used</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	New transitional provision
<u>9.1.0.12.4</u>	<u>Ventilation openings</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	New transitional provision
<u>9.1.0.12.5</u>	<u>Ventilators in the protected area and electric motors for hold ventilators arranged in the air flow</u> <u>Temperature class, explosion</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	Editorial New transitional provision

INF.26

	<u>group</u>		
<u>9.1.0.51</u>	<u>Surface temperatures including outer parts of engines as well as that of their air inlets and exhaust ducts</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	New transitional provision
<u>9.1.0.52.1</u>	<u>Electrical installations, equipment and material for installations outside the protected area</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u> <u>It shall be possible to isolate the electrical equipment in the protected area by means of centrally located switches except where:</u> <u>- in the holds it is of a certified safe type corresponding at least to temperature class T4 and explosion group II B; and</u> <u>- in the protected area on the deck it is of the limited explosion risk type.</u> <u>The corresponding electrical circuits shall have control lamps to indicate whether or not the circuits are live.</u> <u>The switches shall be protected against unintended unauthorized operation. The sockets used in this area shall be so designed as to prevent connections being made except when they are not live. Submerged pumps installed or used in the holds shall be of the certified safe type at least for temperature class T4 and explosion group II B.</u>	New transitional provision Like tank vessels
<u>9.1.0.52.2</u>	<u>Marking in red of electrical installations and equipment</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	New transitional provision Like tank vessels
<u>9.1.0.52.5</u>	<u>Breakdown of the power supply of safety and control installations</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2024</u>	New transitional provision
<u>9.1.0.53.6</u>	<u>Non-electrical installations and equipment within the protected area</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	New transitional provision

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels			Reason / Explanation
Paragraphs	Subject	Time limit and comments	
<u>1.2.1</u>	<u>Cargo area</u> <u>Dimensions on deck</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u> <u>Until then, the following requirements apply on board vessels in service:</u> <u>The dimension corresponds to a frustum with</u> <u>Base: from board to board and from outer cofferdam bulkhead to outer cofferdam bulkhead</u> <u>Inclination or the narrow side: 45°</u> <u>Inclination or the long side: 90°</u> <u>Height: 3.0 m</u> <u>Dimension of zone 1 corresponds to the cargo area on deck</u>	New transitional provision
<u>1.2.1</u>	<u>Device for the safe depressurization of the cargo tanks</u> <u>Deflagration safety</u> <u>Test according to standard</u> <u>ISO 16852:2010 resp.</u> <u>EN ISO 16852:2010 / proof that 'the applicable requirements are fulfilled'</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u> <u>Until then, the following requirements are applicable on board vessels in service:</u> <u>The deflagration safety shall be tested according to the standard EN 12874:2001 including the manufacturer confirmation according to Directive 94/9/EG or at least equivalent 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</u>	New transitional provision
<u>1.2.1</u>	<u>Flame arresters</u> <u>test according to standard</u> <u>EN-ISO 16852: 2010 resp.</u> <u>EN ISO 16852: 2010</u>	<u>N.R.M. from 1 January 2017</u> <u>Renewal of the certificate of approval after 31 December 2034</u> <u>Until then, the following requirements are applicable on board vessels in service:</u> <u>Flame arresters shall be tested according to the standard EN 12874: 1999 2001-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</u>	editorial

INF.26

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels			Reason / Explanation
Paragraphs	Subject	Time limit and comments	
		competent authority for the use prescribed.	
1.2.1	<u>Flame arresters</u> <u>proof that 'the applicable requirements are fulfilled'</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	New transitional provision
1.2.1	<u>Gas detection system</u> <u>test according to IEC 60079-29-1:2011 and EN50271:2011</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2024</u>	New transitional provision
1.2.1	<u>Gas detector</u> <u>test according to IEC 60079-29-1:2011</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2020</u>	New transitional provision
1.2.1	High velocity vent valve Test according to standard ISO 16852:2010 <u>resp. EN ISO 16852:2010 / proof that 'the applicable requirements are fulfilled'</u>	<u>N.R.M. from 1 January 2017</u> <u>Renewal of the certificate of approval after 31 December 2034</u> Until then, the following requirements are applicable on board vessels in service: <u>High velocity vent valves shall tested according to the standard EN 12874:1999 2001 including the manufacturer confirmation according to Directive 94/9/EG or at least equivalent conform to the standard EN 12874:1999</u> 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.	editorial
1.2.1	<u>Oxygen measuring system</u> <u>testing according to EN 50104:2011 Etc.</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2020</u>	New transitional provision
1.2.1	<u>Oxygen meter</u> <u>testing according to EN</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2020</u>	New transitional provision

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels			Reason / Explanation
Paragraphs	Subject	Time limit and comments	
	<u>50104:2011</u>		
<u>1.2.1</u>	<u>Sampling opening</u> <u>Deflagration safety</u> <u>Test according to standard</u> <u>ISO 16852:2010 resp. EN ISO 16852:2010 / proof that 'the applicable requirements are fulfilled'</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u> <u>Until then, the following requirements are applicable on board vessels in service:</u> <u>The deflagration safety of the sampling opening shall be tested according to the standard EN 12874:2001 including the manufacturer confirmation according to Directive 94/9/EG or at least equivalent 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.</u>	New transitional provision
<u>1.2.1</u>	<u>Zoning</u> <u>Zone 1</u> <u>Dimension</u> <u>Zone 2</u> <u>Dimension</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u> <u>Until then, the following requirements apply on board vessels in service:</u> <u>The dimension corresponds to a frustum with</u> <u>Base: from board to board and from outer cofferdam bulkhead to outer cofferdam bulkhead</u> <u>Inclination or the narrow side: 45°</u> <u>Inclination or the long side: 90°</u> <u>Height: 3.0 m</u> <u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	New transitional provision
<u>7.2.2.6</u>	<u>Gas detection system:</u> <u>Calibration based on n-Hexane</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2020</u>	New transitional provision

INF.26

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels			Reason / Explanation
Paragraphs	Subject	Time limit and comments	
<u>7.2.2.19.3</u>	<u>Vessels used for propulsion</u> <u>Adoption to the new requirements in 9.3.3.12.4, 9.3.3.51 and 9.3.3.52.1 to 9.3.3.52.8</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	New transitional provision replacing existing one
<u>7.2.2.19.4</u>	<u>Vessels of a convoy for which explosion protection is required</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u> <u>Until then, the requirements of 7.2.2.19.3 which applied in ADN until 31 December 2018 apply on board vessels in service</u>	New transitional provision
<u>7.2.3.41</u>	<u>Smoking</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2020</u>	New transitional provision
<u>7.2.3.51.4</u>	<u>Disconnection of electrical installations and equipment marked in red</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	New transitional provision for non-electrical installations and equipment transitional provision for electrical installations and equipment now in 9.3.1.52.1e), 9.3.3.52.1 e)
<u>7.2.3.51.5</u>	<u>Surface temperatures in case temperature class T4, T5 or T6 is required</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2020</u>	
<u>7.2.4.25.5</u>	<u>Explosion group / subgroup</u>	<u>N.R.M. from 1 January 2019</u>	<u>New transitional provision</u>

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels			Reason / Explanation
Paragraphs	Subject	Time limit and comments	
		<u>Renewal of the certificate of approval after 31 December 2024</u>	
<u>8.1.2.3 (r), (s), (t), (v)</u>	<u>Documents which have to be available on board</u>	<p><u>N.R.M. from 1 January 2019</u></p> <p><u>Renewal of the certificate of approval after 31 December 2020</u></p> <p><u>Until then, the following requirements apply on board vessels in service:</u></p> <p><u>In addition to the documents required by the Regulations referred to in 1.1.4.6, the following documents shall be on board:</u></p> <p><u>(a) a drawing indicating the boundaries of the cargo area and the location of the electrical equipment installed in this area;</u></p> <p><u>(b) a list of the electrical equipment referred to in (a) above including the following particulars:</u></p> <p><u>machine or appliance, location, type of protection, type of protection against explosion, testing body and approval number;</u></p> <p><u>(c) a list of or general plan indicating the electrical equipment outside the cargo area which may be operated during loading, unloading or degassing.</u></p> <p><u>The documents listed above shall bear the stamp of the competent authority issuing the certificate of approval.</u></p>	<p>New transitional provision</p> <p>Detailed text because 9.3.1.50 of ADN 2015 now deleted</p> <p>Agreed upon in January meeting of the safety committee</p>
<u>8.1.2.3 (u)</u>	<u>Documents which have to be available on board</u> <u>drawing showing the boundaries of the zones</u>	<p><u>N.R.M. from 1 January 2019</u></p> <p><u>Renewal of the certificate of approval after 31 December 2034</u></p>	New transitional provision
<u>8.1.7.2</u>	<u>Installations , equipment and autonomous protective systems: Testing of installations, equipment and autonomous protective systems as well as compliance of the documents required 8.1.2.3 r) to v) with the</u>	<p><u>N.R.M. from 1 January 2019</u></p> <p><u>Renewal of the certificate of approval after 31 December 2020</u></p>	New transitional provision

INF.26

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels			Reason / Explanation
Paragraphs	Subject	Time limit and comments	
	<u>situation on board</u>		
<u>8.1.7.2</u>	<u>Marking of installations and equipment to be used in explosion hazardous areas as well as of autonomous protective systems</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2024</u>	New transitional provision
<u>8.6.1.3</u> <u>8.6.1.4</u>	<u>Modification of the certificate of approval</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2018</u>	New transitional provision
<u>9.3.1.8.3</u> <u>9.3.2.8.3</u> <u>9.3.3.8.3</u>	<u>Ensure compliance of the oxygen measuring system</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2020</u>	New transitional provision
<u>9.3.1.8.4</u> <u>9.3.2.8.4</u> <u>9.3.3.8.4</u>	<u>Compliance of the documents in 8.1.3.2 r) to v)</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2018</u>	New transitional provision
<u>9.3.1.10.1</u> <u>9.3.2.10.1</u> <u>9.3.3.10.1</u>	<u>Penetration of gases and liquids into the wheelhouse,</u> <u>Windows to open</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2024</u>	New transitional provision
<u>9.3.1.10.2</u> <u>9.3.2.10.2</u> <u>9.3.3.10.2</u>	<u>Height of protective coaming</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2020</u>	New transitional provision
<u>9.3.1.10.3</u> <u>9.3.2.10.3</u> <u>9.3.3.10.3</u>	<u>Protection wall</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2024</u>	New transitional provision, replacing existing one
<u>9.3.1.10. 2 4</u> <u>9.3.2.10. 2 4</u>	Door coamings, etc.	N.R.M. <u>Renewal of the certificate of approval after 31 December 2034</u>	Number changed

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels			Reason / Explanation
Paragraphs	Subject	Time limit and comments	
<u>9.3.3.10.-2 4</u>		<p>Until then, the following requirements apply on board vessels in service, with the exception of Type N open vessels:</p> <p>This requirement may be met by fitting vertical protection walls not less than 0.50 m in height.</p> <p>Until then, 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</p>	
<u>9.3.1.12.4</u> <u>9.3.2.12.4</u> <u>9.3.3.12.4</u>	<u>Ventilation of the wheelhouse</u>	<p><u>N.R.M. from 1 January 2019</u></p> <p><u>Renewal of the certificate of approval after 31 December 2024</u></p>	New transitional provision
<u>9.3.1.12.4</u> <u>9.3.2.12.4</u> <u>9.3.3.12.4</u>	<u>Provision of wheelhouse in case surface temperatures higher than mentioned in 9.3.x.51 a) occur</u>	<p><u>N.R.M. from 1 January 2019</u></p> <p><u>Renewal of the certificate of approval after 31 December 2034</u></p>	New transitional provision
<u>9.3.1.12.4</u> <u>9.3.2.12.4</u> <u>9.3.3.12.4</u>	<u>Provision of accommodation, wheelhouse and service spaces in case surface temperatures higher than mentioned in 9.3.x.51 a) occur or electrical equipment not fulfilling the requirements given in 9.3.0.52.1 is used</u>	<p><u>N.R.M. from 1 January 2019</u></p> <p><u>Renewal of the certificate of approval after 31 December 2034</u></p>	New transitional provision wheelhouse
<u>9.3.1.12.4</u> <u>9.3.3.12.4</u>	<u>Electrical installations and equipment used during loading, unloading, degassing and when near to or within a shore-side assigned zone</u>	<p><u>N.R.M. from 1 January 2019</u></p> <p><u>Renewal of the certificate of approval after 31 December 2034</u></p> <p><u>Until then on board of type G and type N vessels whose keels were laid before 1 January 1977 all electrical equipment except the lighting installations in accommodation, radio telephone installations in accommodation and wheelhouses and combustion engine control appliances shall meet the following requirements::</u></p> <p><u>Generators, engines, etc.: IP13 protection mode;</u></p>	In ADN 2015: 9.3.1.52.3 a) 9.3.1.52.3 b) 9.3.3.52.3 a) 9.3.3.52.3 b) adapted

INF.26

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels			Reason / Explanation
Paragraphs	Subject	Time limit and comments	
		<u>Control panels, lamps, switches near the entrances to accommodation etc.:IP23 protection mode;</u> <u>Appliances, etc. IP55 protection mode.</u>	
<u>9.3.1.12.4</u> <u>9.3.2.12.4</u> <u>9.3.3.12.4</u>	<u>Non-electrical installations and equipment used during loading, unloading, degassing and when near to or within a shore-side assigned zone</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	New transitional provision
<u>9.3.1.12.4(b)</u> <u>9.3.2.12.4(b)</u> <u>9.3.3.12.4(b)</u>	<u>Gas detection system: T90-time</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	New transitional provision
<u>9.3.1.12.4</u> <u>9.3.2.12.4</u> <u>9.3.3.12.4</u>	<u>Alarm if not cleared</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2024</u>	New transitional provision
<u>9.3.1.12.6</u> <u>9.3.2.12.6</u> <u>9.3.3.12.6</u>	<u>Distance of the ventilation openings of accommodations, wheelhouse, service spaces from cargo area</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2044 2034</u>	New transitional provision wheelhouse
<u>9.3.1.12.6</u> <u>9.3.2.12.6</u> <u>9.3.3.12.6</u>	<u>Permanently installed flame screens devices according to 9.3.x.40.2.2 c.</u>	<u>N.R.M. from 1 January 2003</u> <u>Renewal of the certificate of approval after 31 December 2018</u>	Editorially adapted
<u>9.3.3.12.7</u>	<u>Approval of flame arresters</u>	N.R.M. Renewal of the certificate of approval after 31 December 2018 for Type N vessels whose keels were laid before 1 January 1977.	
<u>9.3.1.17.6</u> <u>9.3.2.17.6</u>	<u>Distance ventilation openings of the pump room to</u>	<u>N.R.M. from 1 January 2019</u>	New transitional

<i>1.6.7.2.2.2 Table of general transitional provisions: Tank vessels</i>			<i>Reason / Explanation</i>
<i>Paragraphs</i>	<i>Subject</i>	<i>Time limit and comments</i>	
<u>9.3.3.17.6</u>	<u>wheelhouse</u>	<u>Renewal of the certificate of approval after 31 December 2034</u>	provision
<u>9.3.1.17.6</u> <u>9.3.2.17.6</u> <u>9.3.3.17.6</u>	<u>Oxygen measuring system</u> <u>Limiting value for alarm</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2020</u>	New transitional provision
<u>9.3.1.17.6</u> <u>9.3.2.17.6</u> <u>9.3.3.17.6</u>	<u>Alarm if not cleared</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2024</u>	New transitional provision
<u>9.3.1.21.7</u> <u>9.3.2.21.7</u> <u>9.3.3.21.7</u>	<u>Alarm if not cleared</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2024</u>	New transitional provision
<u>9.3.2.20.4</u> <u>9.3.3.20.4</u>	<u>Explosion group / subgroup</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2024</u>	Explaining 'type approved by the competent authority for the use prescribed' in ADN 2015
<u>9.3.3.21.1 (g)</u> <u>9.3.2.21.1 (g)</u>	<u>Explosion group / subgroup</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2024</u>	Explaining 'type approved by the competent authority for the use prescribed' in ADN 2015
<u>9.3.2.22.4 (a)</u> <u>9.3.3.22.4 (e)</u>	<u>Pressure setting of <u>over pressure valve</u> / <u>high velocity vent valves</u></u>	<u>N.R.M.</u> <u>Renewal of the certificate of approval after 31 December 2018</u>	editorial In ADN 2015 9.3.2.22.4 (b), 9.3.3.22.4 (b)

INF.26

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels			Reason / Explanation
Paragraphs	Subject	Time limit and comments	
<u>9.3.1.22.3</u> <u>9.3.2.22.4 (b)</u> <u>9.3.3.22.4 (b)</u> <u>9.3.2.22.4 (a)</u> <u>9.3.3.22.4 (a)</u>	Position of outlets of valves <u>pressure relief devices</u> / high velocity vent valves above the deck	N.R.M. Renewal of the certificate of approval after 31 December 2018	editorial In ADN 2015 9.3.2.22.4 (b), 9.3.3.22.4 (b)
<u>9.3.2.22.4 (d)</u> <u>9.3.3.22.4 (e)</u>	<u>Explosion group / subgroup</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2024</u>	Explaining 'type approved by the competent authority for the use prescribed' in ADN 2015
<u>9.3.2.26.2</u> <u>9.3.3.26.2 (b)</u>	<u>Explosion group / subgroup</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2024</u>	New transitional provision
<u>9.3.1.51 (a)</u> <u>9.3.2.51 (a)</u> <u>9.3.3.51 (a)</u>	Surface temperature of non- electrical installations and equipment not exceeding 200°C	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	New transitional provision
<u>9.3.x.51.3</u>		<i>Deleted</i>	
<u>9.3.1.51.2</u> <u>9.3.2.51.2</u> <u>9.3.3.51.2</u> <u>9.3.1.52.4</u> <u>9.3.2.52.4</u> <u>9.3.3.52.4</u>	Visual and audible alarm	N.R.M. Renewal of the certificate of approval after 31 December 2034	Number adapted
<u>9.3.1.52.1</u>	<u>Electrical installations of the</u> <u>"limited explosion risk" type</u>	<u>N.R.M. Renewal of the certificate of approval after 31 December 2034</u>	Editorial

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels			Reason / Explanation
Paragraphs	Subject	Time limit and comments	
<u>9.3.2.52.1</u> <u>9.3.3.52.1</u>		Renewal of the certificate of approval after 31 December 2018 Until then the following on board vessels whose keels were laid before 1 January 1995 the requirements of <u>9.3.1.52.3, 9.3.2.52.3, 9.3.3.52.3 of the ADN which applied until 31 December 2018 apply on board vessels in service.</u>	In ADN 2015 9.3.1.52.3, 9.3.2.52.3, 9.3.3.52.3
<u>9.3.1.52.1</u> <u>9.3.3.52.1</u>	Electrical installations of the " <u>limited explosion risk</u> " type	N.R.M. Renewal of the certificate of approval after 31 December 2034 <u>On vessels whose keels were laid before 1 January 1977 electrical installations except lighting installations in accommodation, radio telephone installations in accommodation and wheelhouses and combustion engine control appliances used during loading, unloading and degassing shall meet the following requirements:</u> <u>Generators, engines, control panels, lamps, etc. I P13 protection mode;</u> <u>Appliances, etc.: IP55 protection mode</u>	Existing transitional provision from 9.3.1.52.3 (a) 9.3.1.52.3 (b) 9.3.3.52.3 (a) 9.3.3.52.3 (b)
<u>9.3.1.52.3 (a)</u> <u>9.3.1.52.3 (b)</u> <u>9.3.3.52.3 (a)</u> <u>9.3.3.52.3 (b)</u>	Electrical installations used during loading, unloading or gas freeing	N.R.M. Renewal of the certificate of approval after 31 December 2034 for the following installations on vessels whose keels were laid before 1 January 1977: – Lighting installations in accommodation, with the exception of switches near the entrances to accommodation; – Radio telephone installations in accommodation and wheelhouses and combustion engine control appliances. Until then, all other electrical installations shall meet the following requirements: (a) Generators, engines, etc. IP13 protection mode; (b) Control panels, lamps, etc.	Now in <u>9.3.1.52.1</u> <u>9.3.2.52.1</u> <u>9.3.3.52.1</u>

INF.26

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels			Reason / Explanation
Paragraphs	Subject	Time limit and comments	
		<p>IP23 protection mode;</p> <p>(e) Appliances, etc.</p> <p>IP55 protection mode</p>	
9.3.3.52.1 b), e), d) and e)	Electrical installations	<p>N.R.M.</p> <p>Renewal of the certificate of approval after 31 December 2034 for Type N open vessels</p>	
9.3.1.52.1 e) 9.3.3.52.1 e).	Electrical installations of the “certified safe” type in the cargo area	<p>N.R.M.</p> <p>Renewal of the certificate of approval after 31 December 2034 for vessels whose keels were laid before 1 January 1977.</p> <p>Until then, 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.) in the cargo area:</p> <p>(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;</p> <p>(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.</p>	Now in <u>9.3.2.12.4</u> <u>9.3.3.12.4</u>
9.3.3.52.2 9.3.3.52.1 b), e), d) and e)	Electrical installations / <u>echo sounding devices</u>	<p>N.R.M.</p> <p>Renewal of the certificate of approval after 31 December 2034 for Type N open vessels</p>	Number adapted
9.3.3.52.2 9.3.3.52.10	Accumulators located outside the cargo area	<p>N.R.M.</p> <p>Renewal of the certificate of approval after 31 December 2034 for Type N open</p>	Number adapted

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels			Reason / Explanation
Paragraphs	Subject	Time limit and comments	
		vessels	
<u>9.3.1.52.4</u> <u>9.3.2.52.4</u> <u>9.3.3.52.4</u> <u>9.3.1.52.3</u> <u>9.3.2.52.3</u> <u>9.3.3.52.3</u> Last sentence	Disconnection of such installations from a centralized location	N.R.M. Renewal of the certificate of approval after 31 December 2034 <u>2024</u>	Number adapted
<u>9.3.3.52.4</u> <u>9.3.3.52.3</u>	Electrical installations and equipment ; marking in red	N.R.M. from 1 January 2019 Renewal of the certificate of approval after 31 December 2034 for Type N open vessels.	Number adapted
<u>9.3.3.52.6</u> <u>9.3.3.52.9</u>	Permanently fitted sockets	N.R.M. Renewal of the certificate of approval after 31 December 2034 for Type N open vessels	Number adapted
<u>9.3.1.53.1</u> <u>9.3.2.53.1</u> <u>9.3.3.53.1</u>	<u>Type and location of electrical installations and equipment intended to be used in explosion hazardous areas</u> <u>Zone 0, zone 1</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u> <u>Until than the following requirements apply on board vessels whose keels were laid before 1 January 1995</u> <u>(a) In cargo tanks, residual cargo tanks, and piping for loading and unloading only measuring, regulation and alarm devices of the EEx (ia) type of protection may be installed</u> <u>(b) The electrical equipment in the cargo area on deck shall be of the certified safe type</u> <u>(c) in the cofferdams, double-hull spaces, double bottoms hold spaces and the service spaces in the cargo area below deck only the following equipment may be</u>	Detailed text because 9.3.1.52 of ADN 2015 which contained this text is now with different content

INF.26

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels			Reason / Explanation
Paragraphs	Subject	Time limit and comments	
		<p><u>installed:</u></p> <ul style="list-style-type: none"> <u>– measuring, regulation and alarm devices motors driving essential equipment such as ballast pumps of the certified safe type;</u> <u>– lighting appliances of the “flame-proof enclosure” or “apparatus protected by pressurization” type of protection;</u> <p><u>For the selection of equipment selected for use in zones presenting an explosion risk, the explosion groups and temperature classes assigned to the substances carried in the vessel substance list shall be taken into consideration (See column (15) and (16) of Table C in 3.2.3.2)</u></p> <p><u>Electrical equipment used during loading, unloading and degassing during berthing and which are located outside the cargo area shall be at least of the “limited explosion risk” type except they are located in spaces fulfilling the following requirements .</u></p> <ol style="list-style-type: none"> <u>1. A ventilation system at least of the ‘limited explosion risk’ type ensuring at least an overpressure of 0.1 kPa (0.001 bar) the air intakes of the ventilation system shall be located as far away as possible, however, not less than 6.00 m from the cargo area and not less than 2.00 m above the deck is installed;</u> <u>2. None of the windows is capable of being opened;</u> <u>3. A continuously measuring gas detection system at least of the ‘limited explosion risk’ type with sensors at the suction inlets of the ventilation system as well as directly at the top edge of the sill of the entrance doors of the accommodation and service spaces is installed;</u> <u>4. The ventilators are switched off when the gas concentration reaches 20% of the lower explosive limit;</u> <u>5. In case the overpressure is not maintained, the concentration of 20 % of the lower explosion limit is reached, in the event of failure of the gas detection system, the electrical installations not being at least of the ‘limited explosion risk’</u> 	<p>Existing transitional provision 9.3.1.52.1 (e)</p> <p>9.3.3.52.1 (e)</p> <p>ADN wording</p> <p>Agreed upon in January meeting of the safety committee</p>

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels			Reason / Explanation
Paragraphs	Subject	Time limit and comments	
		<p><u>type, shall be switched off automatically and the emergency lighting shall be activated.</u></p> <p><u>The emergency shall comply at least with the “limited explosion risk” type.</u></p> <p><u>The automatic switch-off device is set so that no automatic switching-off may occur while the vessel is under way.</u></p> <p><u>Aerials for electronic apparatus shall be situated at least at a distance of 2 m from the cargo area.</u></p> <p><u>On board vessels in service at 1. January 2019 whose keels were laid before 1 January 1977 the following requirements apply: On board vessels having non-gastight wheelhouse openings (e.g. doors, windows, etc.) in the cargo area until then the following shall apply during loading, unloading and degassing:</u></p> <p><u>(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;</u></p> <p><u>(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.</u></p>	
<u>9.3.1.53.1</u> <u>9.3.2.53.1</u> <u>9.3.3.53.1</u>	<u>Type and location of electrical installations and equipment intended to be used in explosion hazardous areas</u> <u>Zone 2</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	New transitional provision
<u>9.3.1.53.1</u> <u>9.3.2.53.1</u> <u>9.3.3.53.1</u>	<u>Temperature class and explosion group of non-electrical installations and equipment</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	New transitional provision

INF.26

1.6.7.2.2.2 Table of general transitional provisions: Tank vessels			Reason / Explanation
Paragraphs	Subject	Time limit and comments	
<u>9.3.1.53.1</u> <u>9.3.2.53.1</u> <u>9.3.3.53.1</u>	<u>Temperature class and explosion group of electrical installations and equipment</u>	<u>N.R.M. from 1 January 2019</u> <u>Renewal of the certificate of approval after 31 December 2034</u>	Explaining 'type approved by the competent authority for the use prescribed' in ADN 2015
<u>9.3.1.56.1</u> <u>9.3.3.56.1</u> <u>9.3.1.53.2</u> <u>9.3.3.53.2</u>	Metallic sheaths for all electrical cables in the cargo area	N.R.M. Renewal of the certificate of approval after 31 December 2034 for vessels whose keels were laid before 1 January 1977	Number adapted

7.2 Tank vessels, Amend the following entries to read as follows:

Paragraphs	Modification	Reason / Explanation
7.2.2.19	<i>Pushed convoys and side-by-side formations</i>	
7.2.2.19.3	<p>When a pushed convoy or a side-by-side formation comprises a tank vessel carrying dangerous substances, vessels used for propulsion shall meet the requirements of the following paragraphs:</p> <p>1.16.1.1, 1.16.1.2, 1.16.1.3, <u>1.16.1.4</u>, 7.2.2.5, 8.1.4, 8.1.5, , 8.1.6.1, 8.1.6.3, 8.1.7, 8.3.58.1.8, 8.1.9, 9.3.3.0.1, 9.3.3.0.3 d), 9.3.3.0.5, 9.3.3.10.1, 9.3.3.10.2, <u>9.3.3.10.5</u>, 9.3.3.12.4, 9.3.3.12.6, 9.3.3.16, <u>9.3.3.16.1, 9.3.3.16.2</u>, 9.3.3.17.1 to 9.3.3.17.4, 9.3.3.31.1 to 9.3.3.31.5, 9.3.3.32.2, 9.3.3.34.1, 9.3.3.34.2, 9.3.3.40.1, (however, one single fire or ballast pump shall be sufficient), 9.3.3.40.2, 9.3.3.41, 9.3.3.50.1 e), <u>9.3.3.51, 9.3.3.52.1 to 9.3.3.52.8, 9.3.3.52.3 to 9.3.3.52.6, 9.3.3.56.5</u>, 9.3.3.71 and 9.3.3.74.</p> <p>Vessels moving only type N open tank vessels whose <u>vessel substance list according to 1.16.1.2.5 contains only substances for which explosion protection is not required</u> do not have to meet the requirements of paragraphs 9.3.3.10.1, <u>9.3.3.10.5</u>, 9.3.3.10.2 and 9.3.3.12.6, 9.3.3.51 and 9.3.3.52.1. In this case the following entry shall be made in the certificate of approval or provisional certificate of approval under number 5, permitted derogations: "Derogation from 9.3.3.10.1, 9.3.3.10.2 <u>9.3.3.10.5</u>, 9.3.3.12.6, 9.3.3.51 and 9.3.3.52.1; the vessel may only move tank vessels of type N open whose <u>vessel substance list according to 1.16.1.2.5 contains only substances for which explosion protection is not required.</u>"</p>	<p>Basic safety concept Agreed upon in January meeting of the safety committee New zone concept</p> <p>Reference adapted</p> <p>ADN wording 2x</p>

<i>Paragraphs</i>	<i>Modification</i>	<i>Reason / Explanation</i>
7.2.2.22	<p><i>Deleted</i></p> <p><i>Cargo tank openings</i></p> <p>When substances for which a type C vessel is required in column (6) of Table C of 3.2.3.2 are carried, the pressure relief device / high velocity vent valves shall be set so that blowing off does not normally occur while the vessel is under way.</p>	Not necessary because the opening pressure is given in Table C, Column (6)

8. General requirements applicable to vessels, installations and equipment, Amend the following entries to read as follows:

<i>Paragraphs</i>	<i>Modification</i>	<i>Reason / Explanation</i>
8.1.2.2	<p>In addition to the documents prescribed in 8.1.2.1, the following documents shall be carried <u>available</u> on board dry cargo vessels:</p> <p>(a) The stowage plan prescribed in 7.1.4.11;</p> <p>(b) The ADN specialized knowledge certificate prescribed in 8.2.1.2;</p> <p>(c) For vessels complying with the additional requirements for double-hull vessels:</p> <ul style="list-style-type: none"> – a damage-control plan; – the documents concerning intact stability as well as all conditions of intact stability taken into account for the damaged stability calculation in a form the master understands; – the certificate of the recognised classification society (see 9.1.0.88 or 9.2.0.88); <p>(d) The inspection certificates concerning the fixed fire extinguishing systems prescribed in 9.1.0.40.2.9.</p> <p><u>(e) A list or a drawing indicating the fixed electrical installations and equipment suitable to be used in zone 1 and the installations and equipment complying with 9.1.0.51</u></p> <p><u>(f) A list or a drawing of the fixed installations and equipment which is not allowed to be used during loading, unloading, during berthing or during a stay near to or within a shore-side assigned zone (marked in red according to 9.1.0.52.2).</u></p> <p><u>(g) A drawing showing the borders of the zones and indicating within the respective zone the installed electrical and non-electrical installations and equipment intended for use in potentially explosive areas.</u></p>	<p>New zone concept</p> <p>Editorial</p> <p>Aligning language versions</p>

INF.26

Paragraphs	Modification	Reason / Explanation
	<p>(h) <u>A list of the installations and equipment referred to under (g) with the following information:</u></p> <ul style="list-style-type: none"> - <u>Installation / Equipment, location, marking (Explosion protection level according to 60079-0, Equipment category according to Directive 2014/34 EU or at least equivalent protection level including explosion group and temperature class, type of protection, test body) in case of electrical equipment to be used in zone 1 (alternative a copy of e.g. the certificate of conformity according to Directive 2014/34/EC)¹</u> - <u>Installation /Equipment, location, marking (Explosion protection level according to 60079-0, Equipment category according to Directive 2014/34 EU or at least equivalent protection level including explosion group and temperature class, type of protection, identification number) in case of electrical equipment to be used in zone 2 as well as in case of non-electrical equipment to be used in zone 1 and zone 2 (alternative a copy of e.g. the certificate of conformity according to Directive 2014/34/EC)²</u> <p>The documents listed in (e) to (h) shall bear the stamp of the competent authority issuing the certificate of approval.</p>	
8.3.5	<p>Danger caused by Work on board</p> <p>No repair or maintenance work requiring the use of an open flame or electric current or liable to cause sparks may be carried out</p> <ul style="list-style-type: none"> - on board, dry cargo vessels in the protected area or on the deck less than 3m forward or aft of that area as well as; - on board tank vessels. <p>This requirement does not apply:</p> <p>when dry cargo vessels are furnished with an authorization from the competent authority or a certificate attesting to the totally gas free condition of the protected area; when tank vessels are furnished with an authorization from the competent authority or a certificate attesting to the totally gas free condition of the vessel;</p> <ul style="list-style-type: none"> - to berthing operations. <p>Such work on board tank vessels may be undertaken without permission in the service spaces outside the cargo area, provided the doors and openings are closed and the vessel is not being loaded, unloaded or gas freed.</p> <ul style="list-style-type: none"> - <u>in the service spaces outside the protected area or the cargo area, provided the doors and openings are closed for the duration of the work and the vessel is not loading, unloading or degassing</u> <p><u>or</u></p> <p><u>when the vessel does not stay in or nearby a shore-side assigned zone and on tank vessels a certificate attesting</u></p>	New zone concept

¹ Official Journal of the European Communities No. L 23 of 26 February 2014, S.309

² Official Journal of the European Communities No. L 23 of 26 February 2014, S.309

<i>Paragraphs</i>	<i>Modification</i>	<i>Reason / Explanation</i>
	<p><u>the totally gas-free condition of the vessel according to 7.2.3.7.6 is on hand respectively on dry cargo vessels a certificate attesting to the totally gas-free condition of the protected area is on hand or an authorization from the competent authority is issued.</u></p> <p>The use <u>of low-sparking hand-tools</u> (chromium vanadium steel screwdrivers and wrenches or screwdrivers and wrenches of equivalent material from the point of view of spark formation) <u>as well as equipment at least valid to be used in the respective zone</u> is permitted-</p>	<p>editorial</p>

9.1 Dry cargo vessels, Amend the following entries to read as follows:

Paragraphs	Modification	Reason / Explanation
9.1.0.52.1	<p>It shall be possible to isolate the electrical equipment in the protected area by means of centrally located switches except where:</p> <ul style="list-style-type: none"> <input type="checkbox"/> in the holds it is of a certified safe type corresponding at least to temperature class T4 and explosion group II B; and <input type="checkbox"/> in the protected area on the deck it is of the limited explosion risk type. <p>The corresponding electrical circuits shall have control lamps to indicate whether or not the circuits are live.</p> <p>The switches shall be protected against unintended unauthorized operation. The sockets used in this area shall be so designed as to prevent connections being made except when they are not live. Submerged pumps installed or used in the holds shall be of the certified safe type at least for temperature class T4 and explosion group II B.</p> <p><u>Electrical installations and equipment outside the protected area shall be at least of the "limited explosion risk" type.</u></p> <p><u>This provision does not apply to:</u></p> <ul style="list-style-type: none"> <u>(a) lighting installations in the accommodation and in the wheelhouse, except for switches near entrances to accommodation;</u> <u>(b) mobile phones as well as fixed telephone installations and loading instruments in the accommodation or the wheelhouse</u> <u>(c) electrical installations which during loading and unloading or during a stay near to or within a shore-side assigned zone are</u> <ul style="list-style-type: none"> - <u>switched off or</u> - <u>installed in spaces which are equipped with a ventilation system according to 9.1.0.12.3</u> <u>(d) radiotelephone installations and inland AIS (automatic identification systems) stations in the accommodation and in the wheelhouse if no part of an aerial for radiotelephone installations or AIS stations (Automatic Identification System) is situated above or within 2 m from the cargo area.</u> 	<p>Basic safety concept</p> <p>9.1.0.52.1 of ADN 2015 now in 9.1.0.52.2, 9.1.0.52.3 and 9.1.0.53</p>

9.3. x Tank vessels

<i>Paragraphs</i>	<i>Modification</i>	<i>Reason / Explanation</i>
<u>9.3.1.8.4 new</u> <u>9.3.2.8.4 new</u> <u>9.3.3.8.4 new</u>	<u>The compliance of the documents referred to in 8.1.2.3 r) to v) with the reality on board shall be checked by a recognised classification society, an inspection body or by a person authorized by the competent authority whenever the certificate of approval has to be renewed and during the third year of validity of the certificate of approval. A certificate signed by the recognised classification society shall be available on board.</u>	New zone concept, existing text in 9.3.3.8.4 is renumbered as 9.3.3.8.5
9.3.3.12.6	Notice boards shall be fitted at the ventilation inlets indicating the conditions under which they shall be closed. Any ventilation inlets of accommodation, <u>wheelhouse</u> and service spaces <u>outside the cargo area</u> leading outside shall be fitted with fire flaps <u>fixed devices according to 9.3.3.40.2.2 c. which can be closed rapidly. It shall be clear whether they are open or closed.</u> Such ventilation inlets shall be located not less than 2.00 m from the cargo area. Ventilation inlets of service spaces in the cargo area below deck may be located within such area.	
9.3.1.41	<u>Does not apply to the English text</u>	
9.3.1.41.3	<u>Does not apply to the English text</u>	
9.3.2.55	<i>Reserved</i>	
9.3.2.56	<i>Deleted</i>	
9.3.2.57- 9.3.2.59	<i>Reserved</i>	