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

23 November 2020

English

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

Geneva, 25-29 January 2021

Item 6 of the provisional agenda

**Reports of informal working groups**

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**Minutes of Meeting of the 20th meeting of the Group of Recommended ADN Classification Societies**

Date: 29 October 2020, 9:30 - 15:00

Location: online – meeting via Microsoft Teams

Attendees:

- BV: Mr. Jean-Michel Chatelier, Mr. Guy Jacobs
- DNV-GL: Mr. Torsten Dossdahl (chairman)
- LR: Mr. Bas Joormann, Mr. Karel Vinke
- SRU: Mr. Mykola Slozko
- CRS: Mr. Ivan Bilić Prčić
- RS: Mr. Sergey Legusha
- RINA: Patrizio Di Francesco
- RRR: Mr. Michael Kozin

ADN Safety Committee:

- Mr. Manfred Weiner (Germany, observer)

Not attending (with notices):

- Mr. Henk Langenberg (chairman ADN Safety Committee)

**Opening**

The chairman welcomes the participants for the first online meeting.

**Minutes of Meeting 19<sup>th</sup> meeting, action points (doc 19.IG.10)**

The list of action points was discussed.

- (a) Propylene Oxide (LR) – document: doc 17 IG 02a

(distributed for 17th meeting)

No further comments were submitted. The comments from DNV GL submitted for the last meeting were discussed and agreed. At the further discussion of the document was further agreed that:

- The document should only contain a reference to the latest data sheet.

- The document should be subdivided into a fixed part and a part with information for the concrete vessel.
- For a better understanding of the document, it was decided to fill the document with an example. LR agreed to develop this example.

**(action LR).**

Due to lack of time the draft for a new remark 12 p) of the additional requirements / remarks in ADN 3.2.3.1 could not be finished for this meeting. LR agreed to develop a draft proposal for the next meeting.

**(action LR).**

The document remains on the agenda for the next meeting.

Action point is still open **(action All / LR)**.

- (b) Sliding seals (BV) – no document

The group decided to close this point.

Action point is closed.

- (c) Working group on 9.3.4. (BV) - no document

LR informed the group that they had started to develop an action plan for the further development of this part and that TNO agreed to support rewriting actively. Actually LR contacted different parties for financial support for the project. BV pointed out that the project should consider two topics, the development of an improved calculation method for part 9.3.4 and find a solution for acceptance of cargo tanks with a content of more than 1000 m<sup>3</sup>. LR explains that they are optimistic that these topics will be solved with the new approach. LR will share the action plan with the group.

Action point is still open **(action LR)**.

- (d) Using LNG boil off as fuel (LR) – doc 20 IG 02d and doc 20 IG 02d Annexe

At the discussion of the documents about the use of boil off for propulsion the group came to the conclusion that the boil off of inland navigation gas tank vessels will be too low to use it as fuel for the engines of the ship. Further the group confirmed that all members have Rules for the use of Cargo as fuel for seagoing ship and they would use these Rules if a case comes up where the boil off shall be used as fuel.

Action point is closed.

- (e) Competent authority – document: doc 19 IG 2f rev 1

The group discussed the updated paper and decided to send this version to ADN Safety Committee for further discussion. Mr. Weiner asked how the societies check that the person mentioned under point 17 of the document is authorised by the competent authority for his work. LR and CRS confirmed that this is part of the ADN survey. DNV GL will check.

The group decided to close the work on this document and will wait for the results of the further discussion at ADN Safety Committee.

Action point is closed.

- (f) High velocity valves related to higher temperatures (BV) –

doc 19 IG 02h

Document was re-introduced and discussed and Mr Weiner pointed out that this topic was already discussed at the 32nd session of ADN Safety Committee and the result of this discussion can be found at document ECE/TRANS/WP.15/AC.2/66 under point 57 to 60.

BV agreed to develop an INF paper and send it to ADN Safety Committee.

Action point is still open (**action BV**)

- (g) Sampling device on board of tankers Type N (BV) – doc 17 IG 04j (distributed for 17th meeting)

Due to high work load LR could not finish the summarise paper for this meeting and agreed to develop the paper for the next meeting of the group. The group will come back to this point at the next meeting.

Action point is still open (**action LR**).

- (h) List and Inspection of NON-electrical equipment (BV) – doc 17 IG 04l (distributed for 17th meeting)

The document was discussed and RINA made the proposal that it would be helpful to split the document into two parts with active and passive devices and agreed to develop a draft for the next meeting. LR pointed out that they are waiting for reply from their surveyors in the field.

The group discussed and confirmed again that this document will only be developed as a guidance for the surveyors in the field.

Mr. Weiner was the opinion that the definition of “Equipment” given in ADN under article 1.2.1 and in Directive 2014/34/EU is clear and should be sufficient. Further he pointed out that a list according ADN 8.1.2.4 t) with all devices falling under this point have to be on board and this list has to be approved by the class society.

Action point is still open (**action RINA**).

- (i) Deflagration, detonation and steady burning (action BV) – doc 20 IG 02i, INF 22 of 35<sup>th</sup> meeting ADN Safety Committee

BV send around this new paper, but the time was too short to study the paper in detail. Therefore, the group decided that comments should be sent directly to Mr. Jacobs (BV) and that the document will be discussed at the next meeting of this group.

Action point is still open (**action All**).

- (j) ADN 2019 interpretations and questions – doc 18 IG 04c point 4 (distributed for 18th meeting)

Due to high workload LR could not develop a paper for this meeting and will come back with a proposal for the next meeting of the group. The group will come back to this point at the next meeting.

Action point is still open (**action LR**).

- (k) Compliance with the EN ISO/IEC 17020:2012 – doc 19 IG 03 b (distributed for 19th meeting), point 24 and 25 at the report of 36<sup>th</sup> meeting of ADN Safety Committee

BV explained that an accreditation according EN ISO/IEC 17020 is very difficult and complex and the group is the opinion that the evidence of implementation of EN ISO/IEC 17020:2012 in the management system should be based on the relevant parts of this standard as interpreted by the IACS quality system certification scheme requirements.

The group will follow up the discussion of the document ECE-TRANS-WP15-AC2-2020-32 at the next meeting of the ADN Safety Committee and will decide at the next meeting whether the document doc 19 IG 03 b should be submitted to ADN Safety Committee.

Action point is still open (**action All**).

- (l) Corrections to 8.1.2.2 and 8.1.2.9 – doc 20 IG 02 l and point 54 at the report of 36<sup>th</sup> meeting of ADN Safety Committee

Corrections to 8.1.2.2

During the discussion of this point, Mr. Weiner pointed out that these proposals had already been discussed in the ADN Safety Committee and that the adopted changes can be found in the document ECE/TRANS/WP.15/AC.2/74/Add.1, page 13. The group decided that this item can be closed.

Corrections to 8.1.2.9

The proposal of correction to 8.1.2.9 has been adopted.

The group decided to send it to the ADN Safety Committee before

31<sup>st</sup> October 2020. **(Action BV)**

Action point is closed.

- (m) Interpretation of 9.3.3.12.2 – doc 20 IG 02m and point 3 a. of 18th meeting of the Group of ADN Recommended Classification Societies

The group discussed the document and decided to send it to the ADN Safety Committee without any changes.

Action point is closed.

- (n) Deep well pumps in cargo tanks of gas tankers, attestation for zone 0 – no document

There were no new information submitted and the group decided to wait up the further discussion of the paper ECE/TRANS/WP.15/AC.2/2020/29 from Germany at the ADN Safety Committee. The item remains on the agenda.

**(action All)**

### **Items from last ADN Safety Committee meeting**

The planned 37th session of the ADN Safety Committee was postponed to 25-29 January 2021 and therefore no items needed to be discussed at this topic.

### **Technical issues**

no new issues

### **Any other business**

- (a) UN 3082 – ... (BILGE WATER, CONTAINS SLUDGE)

LR explained that these product was one of the adoptions agreed for ADN 2021 and remember that the was a discussion about transitional dispositions for small bilge recovery vessels for this product at the ADN Safety Committee but cannot find a transitional provision in ADN 2021 and asked the group how to handle this product for the vessels product list for ADN 2021.

Mr. Weiner is the opinion that this product can be transported in Germany if product UN 3082 – BILGE WATER was on the vessels product list on 31 December 2008. The following German interpretation for oil separator vessels < 300 t was submitted by Mr. Weiner:

*If BILGE WATER, CONTAINS SLUDGE was transported with permission in oil separator vessels before 2009 and verifiable as a dangerous good classified under any proper UN- or Substance-Number mentioned on the vessels substance list, it can be transported in accordance with the transitional provision 1.6.7.4.1 ADN until 2038.*

After further discussion the group decided that the class societies will ask the single Authorities of involved ADN member states for their interpretation for the transport of this product.

(b) Transport of UN1789 - Hydrochloric acid

LR informed the group about a new building project a tanker type C for which it is planned that some tanks will be built and equipped for the transport of hydrochloric acid. In this connection the question came up whether it is allowed to install pipes and pumps made from plastic materials for these cargo tanks, because the piping is not mentioned in table of ADN 9.3.2.0.3.

After discussion of different approaches for this problem it came up that the best way should be to propose an additional remark in table C for UN1789 - Hydrochloric acid which allows the use of plastic materials for the transport of this product. LR will discuss such a approach internally and will come up with a proposal for the Informal Working Group on Substances.

(c) Election of new Chairman

Mr. Ivan Bilić Prcić from Croatian Register of Shipping (CRS) was proposed as new Chairman for this group for 2021 and 2022 and accepted his nomination.

In this context, RINA made the proposal to hold one meeting as a live session and one as an online session (TEAMS session) in the future. Some members of the group did not want to support this proposal as they felt that a live session was preferable. But they accept the point of view that some members want decrease travel activities and therefore proposed to hold hybrid meetings in the future, where members can decide whether to participate in the live session or follow the session online. This proposal was agreed as a good compromise acceptable to all members.

### **Next meeting**

Next meeting will be held on Thursday 18 March 2021 and is planned as a live meeting at CRS.

## Annex

20 November 2020  
Document no.: *doc19 IG 2f rev 1*

## Informal group of Recommended ADN Classification Societies

### Annex to TOP 2e - Competent authority

Related documents: doc.19.IG.01 – point 2f Competent authority UPDATED VERSION

| ADN 2019 REFERENCES - COMPETENT AUTHORITY |             |  |        |  |
|---|-------------|--|--------|--|
| Nr  | Paragraph   | Content  | Remark | Proposal   |
| 1.  | Definitions | <i>Inspection body</i> means an independent monitoring and verification body certified by the <b>competent authority</b> ;   |        |  |
| 2.  | Definitions | <i>Opening pressure</i> means the pressure referred to in column (10) of Table C of Chapter 3.2 at which the pressure relief valves/high-velocity vent valves open. For pressure tanks the opening pressure of the safety valve shall be established in accordance with the requirements of the <b>competent authority</b> or a recognized classification society;   |        | Class societies use his own rules; competent authority for the issue of certificates   |
| 3.  | 1.5.3.1     | Procedure for equivalents<br>When the provisions of these Regulations prescribe for a vessel the use or the presence on board of certain materials, installations or equipment or the adoption of certain construction measures or certain fixtures, the <b>competent authority</b> may agree to the use or the presence on board of other materials, installations or equipment or the adoption of other construction measures or other fixtures for this vessel if, in line with recommendations established by the Administrative Committee, they are accepted as equivalent. |        | Class societies in this case ask the competent authority for the issue of certificates |
| 4.  | 1.5.3.2     | Derogations on a trial basis<br>The <b>competent authority</b> may, on the basis of a recommendation by the Administrative Committee, issue a trial certificate of approval for a limited period for a specific vessel having new technical characteristics departing from the requirements of these Regulations, provided that these characteristics are sufficiently safe.   |        | Class societies in this case ask the competent authority for the issue of certificates |

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| 5.<br>TR | 1.6.7.2.2.2<br>1.2.1 | Device for the safe depressurization of cargo tanks<br>Deflagration safety<br>Test according to ISO 16852:2016 / Proof of conformity with applicable requirements | N.R.M. from 1 January 2019<br>Renewal of the certificate of approval after 31 December 2034<br>The deflagration safety shall be tested according to EN 12874:2001 including the manufacturer's confirmation under Directive 94/9/EC on board vessels built or modified from 1 January 2001 or if the safe pressure-relief device for the cargo tanks has been replaced since 1 January 2001. In other cases, they shall be of a type approved by the <b>competent authority</b> for the use prescribed.   | Competent authority unclear, BV, DNV GL and LR informed that they use the old list of accepted devices from the Netherlands.<br><br>Germany only accept type approval from PTB Braunschweig<br><br>Which other type approvals will be accepted by the other member states? |
| 6.<br>TR | 1.6.7.2.2.2<br>1.2.1 | Flame arrester<br>Test according to ISO 16852:2016 or EN ISO 16852:2016   | N.R.M. from 1 January 2019<br>Renewal of the certificate of approval after 31 December 2034<br>Until that date, the following requirements are applicable on board vessels in service:<br>Flame arresters shall be:<br>-Tested according to ISO 16852:2010 or EN ISO 16852:2010 if they have been replaced since 1 January 2015 or are on board vessels built or modified since 1 January 2015;<br>-Tested according to EN 12874:2001 if they have been replaced since 1 January 2001 or are on board vessels built or modified since 1 January 2001;<br>- Of a type approved by the <b>competent authority</b> for the use prescribed if they were replaced before 1 January 2001 or are on board vessels built or modified before 1 January 2001. | Type-approved devices and equipment by recognized classification societies.  |
| 7.<br>TR | 1.6.7.2.2.2<br>1.2.1 | High velocity vent valve<br>Test according to ISO 16852:2016 or EN ISO 16852:2016 / Proof of conformity with applicable requirements                              | N.R.M. from 1 January 2019<br>Renewal of the certificate of approval after 31 December 2034<br>Until that date, the following requirements are applicable on board vessels in service:<br>High velocity vent valves shall be<br>-Tested according to ISO 16852:2010 or EN ISO 16852:2010, including the   | Type-approved devices and equipment by recognized classification societies.  |

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|          |                      |  | <p>manufacturer's confirmation in line with Directive 94/9/EC or equivalent, if they have been replaced since 1 January 2015 or are on board vessels built or modified since 1 January 2015.</p> <p>-Tested according to EN 12874:2001, including the manufacturer's confirmation in line with Directive 94/9/EC or equivalent, if they have been replaced since 1 January 2001 or are on board vessels built or modified since 1 January 2001.</p> <p>-Of a type approved by the <b>competent authority</b> for the use prescribed if they were replaced before 1 January 2001 or are on board vessels built or modified before 1 January 2001.</p>   |  |
| 8.<br>TR | 1.6.7.2.2.2<br>1.2.1 | <p>Sampling opening<br/>Deflagration safety<br/>Test according to<br/>ISO 16852:2016 or<br/>EN ISO 16852:2016 / Proof of<br/>conformity with applicable<br/>requirements</p> | <p>N.R.M. from 1 January 2019<br/>Renewal of the certificate of<br/>approval after 31 December<br/>2034</p> <p>The deflagration safety of the<br/>sampling opening shall be:</p> <ul style="list-style-type: none"> <li>- Tested according to<br/>ISO 16852:2010 or<br/>EN ISO 16852:2010,<br/>including the manufacturer's<br/>confirmation under Directive<br/>94/9/EC or equivalent, if the<br/>sampling opening has been<br/>replaced since 1 January<br/>2015 or is on board a vessel<br/>built or modified since 1<br/>January 2015.</li> <li>- Tested according to<br/>EN 12874:2001, including<br/>the manufacturer's<br/>confirmation under Directive<br/>94/9/EC or equivalent, if the<br/>sampling opening has been<br/>replaced since 1 January<br/>2001 or is on board a vessel<br/>built or modified since 1<br/>January 2001.</li> <li>- Of a type approved by the<br/><b>competent authority</b> for the<br/>use prescribed if the<br/>sampling opening was<br/>replaced before 1 January<br/>2001 or is on board a vessel<br/>built or modified before<br/>1 January 2001.</li> </ul> | <p>Group opinion: Only<br/>the flame arresters<br/>have to be type<br/>approved.</p> |



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| 9.<br>TR  | 1.6.7.2.2.2<br>8.1.2.3<br>(r), (s), (t),<br>(v) | Documents which must be carried on board                    | <p>N.R.M. from 1 January 2019</p> <p>Renewal of the certificate of approval after 31 December 2020</p> <p>Until that date, in addition to the documents required in accordance with 1.1.4.6, the following documents are required:</p> <p>a) A plan indicating the boundaries of the cargo area and the location of the electrical equipment installed in that area;</p> <p>(b) A list of the machinery, appliances or other electrical equipment referred to in (a) above, including the following particulars:<br/>Machinery or appliance, location, type of protection, type of explosion protection, testing body and approval number;</p> <p>(c) A list of or general plan indicating the electrical equipment located outside the cargo area which may be operated during loading, unloading or gas-freeing.</p> <p>The documents listed above shall bear the stamp of the <b>competent authority</b> issuing the certificate of approval.</p> | Documents submitted to <b>competent authority</b> pre-verified from recognized classification society. |
| 10.<br>TR | 1.6.7.2.2.2<br>9.3.1.17.1<br>9.3.3.17.1         | Accommodation and wheelhouse outside the cargo area         | <p>N.R.M. for vessels whose keels were laid before 1 January 1977, provided that there is no connection between the wheelhouse and other enclosed spaces.</p> <p>Renewal of the certificate of approval after 31 December 2044.</p> <p>Renewal of the certificate of approval after 31 December 2044 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 <b>competent authority</b>.</p>   | Accepted if the arrangement was accepted by the competent authority for the issue of certificates.     |
| 11.<br>TR | 1.6.7.2.2.2<br>9.3.1.53.1                       | Type and location of electrical installations and equipment | N.R.M. from 1 January 2019   | Competent authorities for this kind of equipment   |

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|  | <p>9.3.2.53.1<br/>9.3.3.53.1</p> | <p>intended to be used in explosion hazardous areas<br/>Zone 0, Zone 1</p> | <p>Renewal of certificate of approval after 31 December 2034</p> <p>Until that date, the following requirements are applicable:</p> <p>(a) In cargo tanks and piping for loading and unloading, only measuring, regulation and alarm devices of the EEx (ia) type of protection may be installed.</p> <p>(b) Electrical equipment on deck in the cargo area and the measuring, regulation and alarm apparatus, motors driving essential equipment such as ballast pumps in the cofferdams, double-hull spaces, double bottoms, hold spaces and service spaces below deck in the cargo area shall be checked and approved by the <b>competent authority</b> with respect to the safety of operation in an explosive atmosphere, for example, intrinsically safe apparatus, flameproof enclosure apparatus, apparatus protected by pressurization, powder filling apparatus, apparatus protected by encapsulation and increased safety apparatus.</p> <p>(c) In the cofferdams, double-hull spaces, double bottoms, hold spaces and service spaces below deck in the cargo area, the lighting appliances must have the “flame-proof enclosure” or “apparatus protected by pressurization” type of protection.</p> <p>(d) The control and protective equipment of the equipment referred to in (a), (b) and (c) above shall be located outside the cargo area if they are not intrinsically safe.</p> <p>For the selection of electrical equipment, the explosion groups and temperature classes assigned to the substances carried in the list of substances shall be taken into consideration (see</p> | <p>need to be published by member states.</p> |
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|     |         |   | <p>columns (15) and (16) of Table C of Chapter 3.2).</p> <p>Until that date, the following requirements apply on board vessels in service whose keels were laid after 31 December 1977:</p> <p>Until that date, 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 equipment to be used in the wheelhouse shall be of a limited explosion-risk type, i.e., it shall be so designed that there is no sparking and the temperature of its outer surface does not rise above 200 °C during normal operation, or it shall be of a type protected against water jets and designed in such a way that its surface temperature may not exceed 200 °C during normal operation.</p> <p>(b) Electrical equipment which does not meet the requirements of (a) above shall be marked in red and it shall be possible to switch it off by means of a central switch.</p> |  |
| 12. | 8.1.2.2 | <p>In addition to the documents prescribed in 8.1.2.1, the following documents shall be carried 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"> <li>– a damage-control plan;</li> <li>– 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;</li> <li>– the certificate of the recognized classification society (see 9.1.0.88 or 9.2.0.88);</li> </ul> |  | Competent authority clearly defined; no explanation necessary. |

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|  |  | <p>(d) The inspection certificates concerning the fixed fire extinguishing systems prescribed in 9.1.0.40.2.9;</p> <p>(e) A list of or a general plan indicating the fixed installations and equipment suitable for use at least in zone 1 and the installations and equipment complying with 9.1.0.51;</p> <p>(f) A list of or a general plan indicating the fixed installations and equipment which are not authorized for use during loading and unloading, during a stay near to or within an onshore assigned zone (marked in red according to 9.1.0.52.2);</p> <p>(g) A plan indicating the boundaries of the zones and the location of the electrical and non-electrical equipment installed in the relevant zones intended for used in explosion hazardous areas;</p> <p>(h) A list of the installations and equipment referred to under (g) with the following information:</p> <ul style="list-style-type: none"> <li>– Installation / equipment, location, marking (explosion protection level according to IEC 60079-0, equipment category according to Directive 2014/34/EU<sup>1</sup> or equivalent protection level, explosion group, temperature class, type of protection, test body) in case of electrical equipment for use in zone 1 (alternatively, a copy of the certificate of conformity according to Directive 2014/34/EU<sup>1</sup>);</li> <li>– Installation / equipment, location, marking (explosion protection level according to IEC 60079-0, equipment category according to Directive 2014/34/EU<sup>1</sup> or equivalent protection level, including explosion group and temperature class, type of protection, identification number) in case of electrical equipment for use in zone 2 and in the case of non-electrical equipment for use in zone 1 and zone 2 (alternatively, a copy of the certificate of conformity according to Directive 2014/34/EU<sup>1</sup>);</li> </ul> <p>The documents listed above shall bear the stamp of the <b>competent authority</b> issuing the certificate of approval.</p> |  |  |
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| 13. | 8.1.2.3 | <p>In addition to the documents prescribed in 8.1.2.1, the following documents shall be carried on board tank vessels:</p> <p>(a) The cargo stowage plan prescribed in 7.2.4.11.2;</p> <p>(b) The ADN specialized knowledge certificate prescribed in 8.2.1.2;</p> <p>(c) For vessels which have to conform to the conditions of damage-control (see 9.3.1.15, 9.3.2.15 or 9.3.3.15)</p> <ul style="list-style-type: none"> <li>– a damage-control plan;</li> <li>– 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 stability booklet and the proof of the loading instrument having been approved by the recognized classification society;</li> </ul> <p>(d) <i>(Deleted)</i></p> <p>(e) The certificate of class issued by the recognized classification society prescribed in 9.3.1.8.1, 9.3.2.8.1 or 9.3.3.8.1.</p> <p>(f) The certificates concerning the inspection of the special equipment, the gas detection systems and the oxygen measuring system prescribed in 8.1.6.3;</p> <p>(g) The vessel substance list prescribed in 1.16.1.2.5;</p> <p>(h) The inspection certificate for the hose assemblies for loading and unloading prescribed in 8.1.6.2;</p> <p>(i) The instructions relating to the loading and unloading flows prescribed in 9.3.2.25.9 or 9.3.3.25.9;</p> <p>(j) The inspection certificate of the cargo pump-rooms prescribed in 8.1.8;</p> <p>(k) In the event of the carriage of goods having a melting point <math>\geq 0^{\circ}</math> C, heating instructions;</p> <p>(l) <i>(Deleted)</i></p> <p>(m) The registration document referred to in 8.1.11;</p> <p>(n) For the carriage of refrigerated substances, the instruction required in 7.2.3.28;</p> <p>(o) The certificate concerning the refrigeration system, prescribed in 9.3.1.27.10, 9.3.2.27.10 or 9.3.3.27.10;</p> <p>(p) The inspection certificates concerning the fixed fire</p> |  | Competent authority clearly defined; no explanation necessary. |
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|  |  | <p>extinguishing systems prescribed in 9.3.1.40.2.9, 9.3.2.40.2.9 or 9.3.3.40.2.9; and</p> <p>(q) When carrying refrigerated liquefied gases and the temperature is not controlled in accordance with 9.3.1.24.1 (a) and 9.3.1.24.1 (c), the determination of the holding time (7.2.4.16.16, 7.2.4.16.17 and documentation on the heat transmission coefficient);</p> <p>(r) A list of or a general plan indicating the fixed installations and equipment suitable to be used at least in zone 1 and the installations and equipment complying with 9.3.x.51;</p> <p>(s) A list of or a general plan indicating the fixed installations and equipment which are not authorized for use during loading and unloading, gas-freeing or during a stay near to or within an onshore assigned zone (marked in red according to 9.3.1.52.3, 9.3.2.52.3 or 9.3.3.52.3);</p> <p>(t) A plan approved by a recognized classification society indicating the boundaries of the zones and the location of the electrical and non-electrical equipment installed in the relevant zone intended to be used in explosion hazardous areas, as well as self-contained protection systems;</p> <p>(u) A list of the installations / equipment referred to under (t) and of the self-contained protection systems, with the following information:</p> <ul style="list-style-type: none"> <li>- Installations/equipment, location, marking (explosion protection level according to IEC 60079-0, equipment category according to Directive 2014/34/EU<sup>1</sup> or at least equivalent), including explosion group and temperature class, type of protection and test body, in the case of electrical equipment for use in zone 0 or zone 1 and, in the case of non-electrical equipment for use in zone 0; (alternatively, a copy of the inspection certificate, for example the declaration of conformity under Directive 2014/34/EU<sup>1</sup>);</li> <li>- Installation / equipment, location, marking (explosion protection level according to IEC 60079-0, equipment category according to</li> </ul> |  |  |
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|     |         | <p>Directive 2014/34/EU<sup>1</sup> or equivalent protection level, including explosion group and temperature class, type of protection, identification number) in the case of electrical equipment for use in zone 2 and in the case of non-electrical equipment for use in zone 1 and zone 2 (alternatively, a copy of the inspection certificate, for example, the certificate of conformity according to Directive 2014/34/EU<sup>1</sup>);</p> <p>– Self-protection system, place of installation, marking (explosion group / subgroup):</p> <p>(v) A list of or general plan indicating the fixed installations and equipment installed outside the explosion hazardous areas that may be used during loading, unloading, gas -freeing, berthing or during a stay in the immediate vicinity of or within an onshore assigned zone, if not referred to in (r) and (u).</p> <p>The documents listed in (r) to (v) shall bear the stamp of the <b>competent authority</b> issuing the certificate of approval.</p> |  |  |
| 14. | 8.1.6.2 | <p>Hose assemblies used for loading, unloading or delivering products for the operation of the vessel and residual cargo shall comply with European standard EN 12115:2011-04 (Rubber and thermoplastics hoses and hose assemblies) or EN 13765:2010-08 (Thermoplastic multilayer (non-vulcanized) hoses and hose assemblies) or EN ISO 10380:2003-10 (Corrugated metal hoses and hose assemblies).</p> <p>They shall be checked and inspected in accordance with table A.1 of standard EN 12115:2011-04 or table K.1 of standard EN 13765:2010-08 or paragraph 7 of standard EN ISO 10380:2003-10 at least once a year, according to the manufacturer's instructions, by persons authorized for this purpose by the <b>competent authority</b>. A certificate concerning this inspection shall be carried on board.</p>  |  | <p>Competent authorities for this kind of equipment need to be published by member states.</p> <p>Does the class societies check this point?</p> <p>- LR check this</p> <p>- CRS check this</p> <p>- DNV GL will clarify</p> |
| 15. | 8.1.7.1 | <p>Electrical installations and equipment</p> <p>The insulation resistance of the fixed electrical installations and equipment and their earthing shall</p>   |  | <p>Competent authority for the issue of certificates.</p>  |

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|     |         | be inspected whenever the certificate of approval is renewed and, in addition, within the third year from the date of issue of the certificate of approval by a person authorized for this purpose by the <b>competent authority</b> . A certificate concerning this inspection shall be carried on board.   |  |                                    |
| 16. | 8.1.7.2 | Installations and equipment intended for use in explosion hazardous areas, “limited explosion risk” type equipment, installations and equipment complying with 9.3.1.51, 9.3.2.51 and 9.3.3.51 and autonomous protective systems<br>Such installations, equipment and autonomous protective systems and their compliance with the documents referred to in 8.1.2.2 (e) to (h) or 8.1.2.3 (r) to (v) in respect of the situation on board shall be inspected whenever the certificate of approval is renewed and, in addition, within the third year from the date of issue of the certificate of approval, by a person authorized for this purpose by the classification society that classified the vessel or by the <b>competent authority</b> . A certificate concerning this inspection shall be carried on board. |  | Will be checked by class surveyor. |
| 17. | 8.2.1.2 | An expert is a person who has a special knowledge of the ADN. Proof of this knowledge shall be furnished by means of a certificate from a <b>competent authority</b> or from an agency recognized by the <b>competent authority</b> .  |  | no class matter                    |
| 18. | 8.2.1.3 | The experts referred to in 8.2.1.2 shall take part in a basic training course. Training shall take place in the context of classes approved by the <b>competent authority</b> .  |  | no class matter                    |
| 19. | 8.2.1.4 | After five years, the certificate shall be renewed by the <b>competent authority</b> or by a body recognized by it if the expert furnishes proof, of successful completion of a refresher course taken in the last year prior to the expiry of the certificate, covering at least the objectives referred to in 8.2.2.3.1.1 and in 8.2.2.3.1.2 or 8.2.2.3.1.3 and comprising current new developments in particular.   |  | no class matter                    |



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| 20. | 8.2.1.5                                  | Experts for the carriage of gases shall take part in a specialization course covering at least the objectives referred to in 8.2.2.3.3.1. Training shall take place in the context of classes approved by the <b>competent authority</b> .   |  | no class matter                                |
| 21. | 8.2.1.6                                  | After five years, the certificate shall be renewed by the <b>competent authority</b> or by a body recognized by it if the expert on the carriage of gases furnishes proof:<br>- that during the year preceding the expiry of the certificate, he has participated in a refresher course covering at least the objectives referred to in 8.2.2.3.3.1 and comprising current new developments in particular; or<br>- that during the previous two years he has performed a period of work of not less than one year on board a type G tank vessel.   |  | no class matter                                |
| 22. | 8.2.1.7                                  | Experts for the carriage of chemicals shall take part in a specialization course covering at least the objectives referred to in 8.2.2.3.3.2. Training shall take place in the context of classes approved by the <b>competent authority</b> .   |  | no class matter                                |
| 23. | 8.2.1.8                                  | After five years, the certificate shall be renewed by the <b>competent authority</b> or by a body recognized by it if the expert on the carriage of chemicals furnishes proof,<br>-that during the year preceding the expiry of the certificate, he has participated in a refresher course covering at least the objectives referred to in 8.2.2.3.3.2 and comprising current new developments in particular, or<br>-that during the previous two years he had performed a period of work of not less than one year on board a type C tank vessel. |  | no class matter                                |
| 24. | 9.1.0.1<br>9.3.1.1<br>9.3.2.1<br>9.3.3.1 | Vessel record<br>The vessel record shall be retained by the owner who shall be able to provide this documentation at the request of the <b>competent authority</b> and the recognized classification society.  |  | All competent authorities could be meant here. |

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| 25. | 9.1.0.40.2.7<br>9.3.1.40.2.7<br>9.3.2.40.2.7<br>9.3.3.40.2.7 | Pressurised tanks, fittings and piping<br>(a) Pressurised tanks, fittings and piping shall conform to the requirements of the <b>competent authority</b> or, if there are no such requirements, to those of a recognized classification society.  |  | Approval on basis of Class Rules or on basis of PED directive by class societies. |
| 26. | 9.2.0.94.4   | For seagoing vessels the provisions of 9.2.0.94.2 above may be regarded as having been complied with if the stability conforms to Resolution A.749 (18) of the International Maritime Organization and the stability documents have been checked by the <b>competent authority</b> . This applies only when all containers are secured as usual on seagoing vessels and a relevant stability document has been approved by the <b>competent authority</b> .                     |  | Competent authority for the issue of certificates                                 |
| 27. | 9.3.1.8.4<br>9.3.2.8.4<br>9.3.3.8.4                          | The conformity of the documents required in 8.1.2.3 (r) to (v) with the circumstances on board shall be inspected by a recognized classification society, an inspection body or by a person authorized for that purpose by the <b>competent authority</b> whenever the certificate of approval is renewed and, in addition, once during the third year of validity of the certificate of approval. A signed certificate must be available on board.                             |  | Will be checked by class surveyor   |
| 28. | 9.3.1.23.1<br>9.3.2.23.5<br>9.3.3.23.5                       | Cargo tanks and piping for loading and unloading shall comply with the provisions concerning pressure vessels which have been established by the <b>competent authority</b> or a recognised classification society for the substances carried.  |  | Approval of classification society  |
| 29. | 9.3.4.1.4<br>9.3.4.1.5                                       | When a vessel is built in compliance with this section, a recognised classification society shall document the application of the calculation procedure in accordance with 9.3.4.3 and shall submit its conclusions to the <b>competent authority</b> for approval.<br>The <b>competent authority</b> may request additional calculations and proof.<br>The <b>competent authority</b> shall include this construction in the certificate of approval in accordance with 8.6.1. |  | Competent authority for the issue of certificates                                 |

**List of competent authorities:**

[http://www.unece.org/trans/danger/publi/adn/country-info\\_e.html](http://www.unece.org/trans/danger/publi/adn/country-info_e.html)

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