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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)

Forty-second session

Geneva, 21-25 August 2023

Item 4 (b) of the provisional agenda

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

ADN Checklist

Transmitted by the Government of the Netherlands*,**

Summary

Related documents: Informal document INF.11 of the forty-first session – (Netherlands)
ECE/TRANS/WP.15/AC.2/84 (Paragraph 40) – Report of the forty-first session

Introduction

1. At the last session of the ADN Safety Committee, the Dutch delegation announced their intention to propose amendment to the ADN Checklist in 8.6.3 and asked other delegations to send in their input for this project. The Dutch delegation already received input from representatives of the inland navigation industry and the shore-sided operations. We would like to thank the delegations that send their feedback.

2. The Dutch delegation has examined all input and has put together a proposal for amendment of the checklist on the basis of the feedback. With this proposal we aim to improve the safety of loading and unloading operations by alignment the checklist with the rest of the ADN, providing additional explanations to prevent misunderstandings over the checklist.

* Distributed in German by the Central Commission for the Navigation of the Rhine under the symbol CCNR-ZKR/ADN/WP.15/AC.2/2023/44

** A/77/6 (Sect. 20), table 20.6.

Proposal

3. The Netherlands would like to propose the following amendments, new text is bold and underlined, deleted text is stricken through. An updated version of the (English) ADN Checklist in 8.6.3 containing all proposed amendments in track changes, as well as a “clean new” version, is provided in informal document INF.2:

(a) Insert page numbers to every page and include the total number of pages (i.e. “1 of 8”);

Re: Page 1

(b) Insert “The Explanation section constitutes an integral part of this Checklist” after the introductory sentence at the top of page 1;

(c) Amend the Table following “- Particulars of the cargo as indicated in the transport document” as follows:

(i) Change the column order to align with Table C: “Quantity m³ **** / UN Number or Identification number / Proper shipping name *** / Packing Group / Dangers*”;

(ii) Reduce the number of dotted lines to one, except for “Proper shipping name ***”;

(d) Insert a new footnote “**** This is the actual quantity as stated in the transport document that will be loaded”;

(e) In the Table following “- Particulars of last cargo”:

(i) Insert a column “Cargo tank number(s) of vessel”;

(ii) Change the column order to align with Table C: “Cargo tank number of vessel / UN Number or Identification number / Proper shipping name *** / Packing Group / Dangers*”;

(iii) Reduce the number of dotted lines to one, except for “Proper shipping name ***”;

Re: Page 2

(f) Insert a new header at the beginning of page 2:

“- Particulars of loading/unloading”;

(g) In the Table concerning Loading/unloading rate:

(i) Remove the column “Proper shipping name***” and the accompanying footnote;

(ii) Add “(s) of vessel” to “Cargo tank number”;

(h) After the Table concerning Loading/unloading rate:

(i) Insert a new header “- End of loading”;

(ii) Amend the first question as follows:

“~~How will the cargo piping be drained after loading or unloading by stripping or by blowing residual quantities~~ **be emptied** to the shore installation/to the vessel **after loading or unloading**?*”;

(iii) Insert the option “by gravity*” after “by stripping*”;

(iv) Amend the second question as follows:

“If ~~drained~~ **emptied** by blowing, how?”;

(i) Insert a page break before the header “Questions to the master or the person mandated by him and the person in charge at the loading/unloading place”;

- (j) Amend the text preceding the Questions as follows:
- “Questions to the master or the person mandated by him and the person ~~in charge at the loading/unloading place~~ **at the shore facility responsible for the handling**
- Loading/unloading may only be started after all questions on the checklist have been checked off by “X”, i.e. answered with YES and the list has been signed by both persons.
- Non-applicable questions have to be ~~deleted~~ **crossed out**.
- If not all questions can be answered with YES, loading/unloading is only allowed with consent of the competent authority.”;

Re: Questions

- (k) Amend Question 6 as follows:
- (i) Header: “6. Vessel/shore connections”;
- (ii) “6.1 Is the piping for loading or unloading ~~between vessel and shore~~ in satisfactory condition?”;
- (iii) “**6.2** Is **the piping for loading or unloading** ~~it~~ correctly connected?”;
- (iv) “**6.3** ~~6.2~~ Are all the connecting flanges fitted with suitable gaskets?”;
- (v) “**6.4** ~~6.3~~ Are all the connecting bolts **(or equivalent) correctly** fitted and tightened?”;
- (vi) “**6.5** ~~6.4~~ Are the shoreside loading/**unloading** arms free to move in all directions and **(if present)** do the hose assemblies have enough room for easy movement?”;
- (vii) Align the numbering of all question numbers to the left side;
- (l) Amend Question 7 as follows:
- (i) Insert a new header: “7. Vessel piping systems”;
- (ii) Renumber Question 7 to 7.1;
- (iii) “7.1 Are all flanges of the connections of the piping for loading and unloading and of the venting piping not in use, **on board**, correctly blanked off?”;
- (m) Amend Question 8 as follows:
- (i) Renumber Question 8.1 to 8;
- (ii) Renumber Question 8.2 to 21.2;
- (n). Amend Question 10 as follows:
- (i) Insert a new header: “10. Safety provisions”;
- (ii) Renumber Question 10 to 10.1;
- (o) Amend Question 11 as follows:
- (i) Insert a new header “11. Communication”;
- (ii) Renumber Question 11 to 11.1;
- (iii) Insert a new Question “11.2 The language used for operational verbal communication is” for both vessel and loading/unloading place;
- (p) Amend Question 12 as follows:
- (i) Insert a new header “12. Venting and vapour return piping”.
- (ii) “12.1 For the loading of the vessel, is the venting piping, where required, ~~or if it exists~~, connected with the vapour return piping?”;

- (q) Amend Question 13 as follows:
Re-number Question 13 to 14;
- (r) Amend Question 14 as follows:
 - (i) Re-number Question 14.1 to 10.2;
 - (ii) Re-number Question 14.2 to 7.2;
 - (iii) Re-number Question 14.3 to 10.3;
 - (iv) Re-number Question 14 to 15;
 - (v) “15. Check on the most operational requirements **on board:**”
 - (vi) Replace dashes with numbers (15.1, 15.2, etc.);
 - (vii) Align the numbering of all question numbers to the left side;
 - (viii) Insert a new Question “15.2 Are the ventilation systems and gas detection systems switched on and operational?”, for vessels only;
- (s) Amend Question 15 as follows:
 - (i) For Question 15.1, add “O” for “loading/unloading place”;
 - (ii) For Question 15.2, add “O” for “vessel”;
 - (iii) Re-number Question 15.1 to 13.1;
 - (iv) Re-number Question 15.2 to 13.2;
 - (v) Insert a new header “13. Working pressure”;
- (t) Amend Question 18 as follows:

~~“To be filled in only in the case of loading or unloading of substances for the carriage of which a closed cargo tank or an open cargo tank with flame arrester is required:-~~

Are the cargo tank hatches and cargo tank inspection and sampling openings closed or protected by flame arresters fulfilling the requirements of column (16) of Table C of Chapter 3.2?”;
- (u) Amend Questions 19 and 20 as follows:
 - (i) Change the asterisks in the columns “vessel” and “loading/unloading place” from two to one;
 - (ii) Change the accompanying footnote accordingly from two to one asterisk;
- (v) Insert a new Question 21 as follows:
 - (i) Insert a new header “21. Transport of refrigerated liquified gases”;
 - (ii) Insert a new Question “21.1 Are suitable facilities to collect leaked liquids provided underneath the refrigerated liquified gas connections and are they empty?” for both vessel and loading/unloading place;
- (w) Rearrange the Questions in a numerical ascending order;

Re: Explanation

- (x) Insert the following text after the header Explanation:

“General information**Particulars of vessel**

For “vessel type”, state the type of vessel, cargo tank design, type of cargo tank and opening pressure of the pressure relief valves/high-velocity vent valves/safety valves following the definitions given in 1.2.1 and the certificate of approval (for example, C-2-2-50).

Particulars of last cargo

This concerns the last cargo of all tanks to be loaded.

Particulars of loading/unloading

It should be unambiguous to which cargo tank the “cargo tank number(s) of vessel” refers. Where necessary, add additional information to distinguish between cargo tanks (e.g. “starboard 1-1”).

The “estimated residual quantity” is the maximum quantity of product that will flow after active loading or unloading has stopped. It is the amount of product remaining in the hose or loading arm estimated from the last closed valve, expressed in litres. Operationally, the quantity at which loading is stopped in the final stage should be agreed upon in order to safely receive the residual quantity.

The “permissible maximum pressure in the cargo tank” refers to the maximum pressure of the high-velocity vent valve.”;

- (y) Insert a new header “Questions”;
- (z) Amend the current explanation for all Questions as follows:

“Question 1

Prior to loading, both parties will check whether the vessel is permitted to carry this cargo by means of the vessel substance list.

See also 1.4.2.2.1a, 1.4.3.3n, 7.2.1.21.

Question 2

(Reserved)

Question 3

“Well moored” means that the vessel is fastened to the pier or the cargo transfer station in such a way that, without intervention of a third person, movements of the vessel in any direction that could hamper the operation of the cargo transfer gear will be prevented. Established or predictable variations of the water-level at that location and special factors have to be taken into account.

See also 1.1.4.6, 7.2.4.76, 7.2.5.3.

Question 4

It must be possible to escape safely from the vessel at any time. If there is none or only one protected escape route available at the shoreside for a quick escape from the vessel in case of emergency, a suitable means of escape has to be provided on the vessel side if required in accordance with 7.2.4.77.

See also 1.4.3.3q, 1.4.3.7.1g.

Question 5

See also 7.2.4.53.

Question 6

A valid inspection certificate for the hose assemblies must be available on board. The material of the piping for loading and unloading must be able to withstand the expected loads and be suitable for cargo transfer of the respective substances. The piping for loading and unloading between vessel and shore must be placed so that it cannot be damaged by ordinary movements of the vessel during the loading and unloading process or by variations of the water. In addition, all flanged joints must be fitted with appropriate gaskets and sufficient bolt connections **or other types of suitable couplings (e.g. claw coupling)** in order to exclude the possibility of leakage.

For 6.1, see also 9.3.x.25.

For 6.3, see also 1.4.3.3t, 1.4.3.7.1k.

Question 7

All openings of the venting piping and connections to shore installations used for loading and unloading, through which the loading and unloading operation is carried out, shall be provided with safety valves. All openings, when not in use for loading and unloading, shall be fitted with a blind flange.

Question 8

The receptacle intended for recovering possible liquid spillage shall be earthed to the metal structure of the vessel. Pipe connections shall be relieved of pressure prior to connection or disconnecting and the minimal amount of product that may be released shall be caught in the receptacle.

See also 7.2.4.16.5.

Question 9

See also 7.2.3.25.1, 7.2.3.25.2.

Question 10

Loading/unloading must be supervised on board and ashore so that dangers which may occur in the vicinity of piping for loading and unloading between vessel and shore can be recognized immediately. When supervision is effected by additional technical means it must be agreed between the shore installation and the vessel how it is to be ensured.

For 10.1, see also 1.4.3.7.1l, 1.4.3.3u.

For 10.2, see also 7.2.4.40.

For 10.3, see also 7.2.4.41.

Question 11

For a safe loading/unloading operation good communications between vessel and shore are required. For this purpose telephone and radio equipment may be used only if of an explosion protected type and located within reach of the supervisor. **Communication shall be ensured for the entire duration of the loading/unloading operation. It shall take place in a language both persons can understand.**

Question 12

In addition to the requirement of 7.2.4.25.5 ADN other regulations could prescribe the use of the vapour return piping and the venting piping, such as local regulations or permits.

For 12.1, see also 7.2.4.25.5.

For 12.2, see also 1.4.3.3s, 1.4.3.7.1j, 7.2.4.16.6.

For 12.3, see also 1.4.3.3r, 1.4.3.7.1i.

Question 13

(Reserved)

Question 14

Before the start of the loading/unloading operation the representative of the shore installation and the master or the person mandated by him must agree on the applicable procedure. The specific properties of the substances to be loaded/unloaded have to be taken into account.

Question 15

The systems mentioned in 15.3 shall remain switched on during the operation.

“Ventilation systems” refers to systems for the accommodation, wheelhouse and service spaces as described in 9.3.x.12.4.

For 15.6, see also 7.2.3.51.6, 9.3.x.12.4

Question 16

See also 9.3.x.21.4.

Question 17

To prevent backflow from the shore, it is also necessary to activate the overflow prevention device on the vessel under certain circumstances when unloading. It is obligatory during loading and optional during unloading. Delete this item if it is not necessary during unloading.

For 17.1 and 17.2, see also 7.2.4.13.2, 9.3.x.21.5.

Question 18

See also 7.2.3.22.

Question 19

(Reserved)

Question 20

(Reserved)

Question 21

For 21.1, see also 7.2.4.29, 9.3.1.21.11.

For 21.2, see also 7.2.4.2.9.”

Consequential amendments;

(aa) Amend 7.2.4.10.1 as follows:

“Loading or unloading shall start only once a checklist conforming with section 8.6.3 of ADN has been completed for the cargo in question and questions 1 to 19 of the list have been checked off with an “X”. Irrelevant questions should be ~~deleted~~**crossed out**. The list shall be completed, after the pipes intended for the handling are connected and prior to the handling, in duplicate and signed by the master or a person mandated by him and the person responsible for the handling at the shore facilities. If a positive response to all the questions is not possible, loading or unloading is only permitted with the prior consent of the competent authority.”.

Justification and sustainable development goals

4. With this proposal we aim to align the ADN checklist more with the ADN provisions. To that end, we propose to include references to relevant parts of ADN in the explanations of the ADN checklist, re-arrange the columns for the particulars of the (last) cargo.
5. To prevent misunderstandings over the checklist, we propose to add a number of explanations. Furthermore, we made some proposals to improve the checklist editorially.
6. As a clear ADN checklist contributes to a safer loading/unloading process with less accidents, incidents and spills, this proposal could be linked to Sustainable Development Goals 6; Improve water quality by reducing pollution, 8; Promote safe and secure working environments for all workers, 9; Improved infrastructure, and 15; Prevention of unnecessary spills to the aquatic environment.

Action to be taken

7. The ADN Safety Committee is requested to consider the proposals and to take action as it deems appropriate. The members of the ADN Safety Committee had been invited to send the Dutch delegation their proposals and comments on the ADN Checklist by the end of April 2023.
