



Economic and Social Council

Distr.: General
14 June 2018
English
Original: French

Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods

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

Thirty-third session

Geneva, 27–31 August 2018

Item 5 of the provisional agenda

Reports of informal working groups

Report of the 10th meeting of the informal working group on substances

Transmitted by the Government of Germany* **

Introduction

1. The 10th meeting of the informal working group on substances was held on 25 and 26 April 2018 in Berlin, at the Federal Institute for Materials Research and Testing (BAM).
2. Mr. Krischok (Germany) chaired the meeting, which was attended by the representatives of Germany, the Netherlands, the European Chemical Industry Council (CEFIC), the European Barge Union (EBU), the European Skippers Organisation (ESO) and FuelsEurope.

Results

3. In accordance with the mandate given to it by the Safety Committee, the group dealt with the following issues.

* Distributed in German by the Central Commission for the Navigation of the Rhine under the symbol CCNR/ZKR/ADN/WP.15/AC.2/2018/44.

** In accordance with the programme of work of the Inland Transport Committee for 2018–2019 (ECE/TRANS/2018/21/Add.1 (9.3)).



A. Remark 27 in Table C

4. According to special provision 274 of Table A and remark 27 of Table C, generic and “not otherwise specified” proper shipping names are to be supplemented with the technical name of the goods. The working group noted first that the assignment of special provision 274 in Table A should be harmonized with the provisions of ADR and the IMDG Code. It was also noted that the link between special provision 274 of Table A and remark 27 of Table C was not clear. This means that remark 27 in Table C should not be assigned to each entry to which special provision 274 has been assigned in Table A. The current wording of the criteria for assigning remark 27 in Table C did not sufficiently reflect this fact.

Proposal:

5. After extensive discussion, the informal working group decided to propose the following wording for 3.2.3.3, “Flowchart, schemes and criteria for determining applicable special requirements (columns (6) to (20) of Table C)”, and 3.2.4.3, “Criteria for assignment of substances”, as criteria for assigning remark 27:

“Remark 27: Reference shall be made in column (20) to remark 27 for substances for which the reference N.O.S. or a generic reference is made in column (2) and for which the proper shipping names are not already supplemented with the technical name of the goods or additional information concerning the benzene content.”

Proposal:

6. For the implementation of this proposal in the current version of ADN, it is proposed to add remark 27 for the following entries in column (20) in Table C:

- Three entries for UN No. 1993, each with an “*” in columns (6) to (11)
- Two entries for UN No. 3145
- Three entries for UN No. 3295, each with an “*” in columns (6) to (11)
- An entry for substance identification No. 9002
- An entry for substance identification No. 9005 and
- An entry for substance identification No. 9006

Proposal:

7. For the amendments adopted for ADN 2019, it is further proposed to add remark 27 for the following entries in column (20) in Table C:

- Three entries for UN No. 1993, each with an “*” in columns (6) to (11)
- Three entries for UN No. 3295, each with an “*” in columns (6) to (11) and
- An entry for substance identification No. 9002

Proposal:

8. For the amendments adopted for the current version of ADN, it is further proposed to add remark 27 for the following entries in column (20) in Table C:

- Five entries for UN No. 1268, each with more than 10% benzene
- An entry for UN No. 3295, HYDROCARBONS, LIQUID, N.O.S. CONTAINING ISOPRENE AND PENTADIENE, STABILIZED and
- Three entries for UN No. 3494

Proposal:

9. For the amendments adopted for ADN 2019, it is further proposed to delete remark 27 for the following entries in column (20) in Table C:

- Eleven entries for UN No. 1268, each with more than 10% benzene
- An entry for UN No. 3295, HYDROCARBONS, LIQUID, N.O.S. CONTAINING ISOPRENE AND PENTADIENE, STABILIZED and
- Three entries for UN No. 3494

10. In connection with the proposals concerning remark 27, the informal working group proposes to consider the need for a revision of the examples in 3.1.2.8.1.4.

B. Shipping name in Table A and Table C

11. During the discussion on this topic, the informal working group agreed on the following key points:

(a) As a matter of principle, the names in Table A and Table C should be harmonized. However, the informal working group also noted that there are a number of differences between the names in Table A and Table C that are justified. This is the case particularly when, in Table C, for the determination of the specific conditions of carriage, the name was supplemented with the mention of specific technical names or additional information (e.g. the benzene content or the boiling point).

(b) As far as possible, Table C should be adapted to Table A in order to ensure a high degree of harmonization with respect to other modes of transport.

(c) The requirement provides that various entries of a UN number are supplemented by the words “and” or “or” in lower case or separated by a comma and that alternative proper shipping names are added in brackets. Some differences between Table A and Table C were due to the fact that this rule was not applied in all cases, particularly in Table C.

(d) In 3.2.3.1, “Explanations concerning Table C”, column (2), a remark should be added stating that explanatory texts in capital letters may also exist, which then constitute a mandatory part of the proper shipping name.

Following the discussion, the informal working group therefore proposed amendments.

Proposal:

12. Table C contains an entry for UN No. 2288, ISOHEXENE. Therefore, it is proposed to insert a “T” in Table A, column (8), for UN No. 2288, ISOHEXENE.

Proposal:

13. With a view to achieving consistency with Table A, UN No. 1823, SODIUM HYDROXIDE, should be supplemented with the addition of the word “SOLID” in Table C.

Proposal:

14. For the three entries for substance identification No. 9003 in Table C, it is proposed to delete in column (2) the part “or SUBSTANCES WHERE $60\text{ °C} < \text{flash-point} \leq 100\text{ °C}$ ”.

Proposal:

15. In Table C, it is proposed to supplement the name of UN No. 1010, 1,2-BUTADIENE, STABILIZED, so that it reads as follows: “BUTADIENES (1,2-BUTADIENE), STABILIZED.”

In Table C, it is proposed to supplement the name of UN No. 1010, 1,3-BUTADIENE, STABILIZED, so that it reads as follows: “BUTADIENES (1,3-BUTADIENE), STABILIZED.”

Proposal:

16. In accordance with the rule that alternative official names should be added in brackets, the informal working group proposes to delete the word “or” in Table C for the

entries of UN Nos. 1020, 1108, 1131, 1193, 1212, 1219 and 2850 and for the two entries of UN No. 1274 and to add the alternative name in lower case and in brackets.

Proposal:

17. In the German version, it is further proposed to bring the shipping name of the entry for UN No. 2790 VG III into line with that of Table A by replacing “und höchstens 50 Masse-% Säure” with “aber weniger als 50 Masse-% Säure”.

Proposal:

18. In Table C, it is proposed to bring the entry for substance identification No. 9000 into line with Table A by deleting “ANHYDROUS”.

C. Remark 29 in Table C

19. Remark 29 reads as follows: “When particulars concerning the vapour pressure or the boiling point are given in column (2), the relevant information shall be added to the proper shipping name in the transport document, e.g.

UN No. 1224, KETONES, LIQUID, N.O.S.

110 kPa < vp₅₀ < 175 kPa or

UN No. 2929, TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S., boiling point ≤ 60° C

and reference shall be made in column (20) to remark 29 for substances for which the vapour pressure or boiling point is indicated in column (2).

20. According to 3.1.2.1, particulars concerning the vapour pressure (vp) and the boiling point (bp) in column (2) of Table C in chapter 3.2 are already part of the proper shipping name. According to 5.4.1, the proper shipping name is part of the general information to be included in the transport document. Therefore, remark 29 did not imply further particulars or additional information in the transport document.

Proposal:

21. The informal working group therefore proposes deleting remark 29 under 3.2.3.1, “Explanations concerning Table C”, under 3.2.3.3, “Flowchart, schemes and criteria for determining applicable special requirements (columns (6) to (20) of Table C)”, under 3.2.4.3, “Criteria for assignment of substances” and for all entries under 3.2.3.2, Table C.

D. Column (16): Determination of explosion group

22. At its last meeting, the Safety Committee did not accept the proposals of the sub-working group and invited the informal working group to submit a new proposal for the determination of explosion groups, in which the assignment of explosion groups and subgroups is presented in two separate tables. On the basis of a draft prepared by the Netherlands, the informal working group agreed to make the following amendments:

Proposal:

23. 1.2.1, “Definitions”, the definition of “explosion group” should be amended to read as follows (amendments to the existing text are underlined):

Explosion group/subgroup means a grouping of flammable gases and vapours according to their maximum experimental safe gaps (standard gap width, determined in accordance with specified conditions) and minimum ignition currents, and of electrical apparatus intended to be used in a potentially explosive atmosphere (see EN IEC 60079-0:2012), installations, equipment and self-contained protection systems. For self-contained protection systems, the explosion group II B is subdivided into subgroups.”

Proposal:

24. The wording of 3.2.3.3, “Flowchart, schemes and criteria for determining applicable special requirements (columns (6) to (20) of Table C)”, “Column (16): Determination of explosion group”, and of 3.2.4.3, “Criteria for assignment of substances”, “H. Column (16): Determination of explosion group”, is replaced to read as follows:

“Flammable substances shall be assigned to an explosion group on the basis of their maximum experimental safe gaps.

The maximum experimental safe gaps shall be determined in accordance with standard IEC 60079-20-1.

The different explosion groups are as follows:

Explosion Group	Maximum experimental safe gap in mm
II A	> 0.9
II B	≥ 0.5 to ≤ 0.9
II C	< 0.5

Where self-contained protection systems are in place, the different subgroups for explosion group II B are as follows:

Explosion group/subgroup	Maximum experimental safe gap in mm
II B1	> 0.85 to ≤ 0.9
II B2	> 0.75 to ≤ 0.85
II B3	> 0.65 to ≤ 0.75
II B	≥ 0.5 to ≤ 0.65

When anti-explosion protection is required and the relevant data are not provided, reference shall be made to explosion group II B, considered safe.”

E. Goods accepted for carriage — oil sludge

25. For the discussion, informal document INF.4 from the thirty-second session of the Safety Committee and a proposal by the Netherlands were available. The informal working group agreed that, in addition to the proposed new entry for Table C, a definition of “oil sludge”, as precise as possible and drawing on the MARPOL definition, would be necessary.

26. It was noted during the discussion that, in the context of ADN, the concept of “oil sludge” should also be extended to residues from the treatment of bilge water from sea-going vessels.

27. In the proposal for a new entry in Table C, the informal working group agreed that, for hazards, “N1” should be indicated as the worst case in addition to “9 + CMR”. In the view of the informal working group, information on substances that separate by settling should be omitted, as the data required for these decisions are not available in practice and no other separate carriage conditions result.

28. The informal working group wishes to draw the attention of the Safety Committee to the fact that, in the English version of ADN, the term “sludge” is used in the definition of “slops”, but with a different meaning from that of the oil sludge in question here.

29. Since inland navigation vessels mainly use diesel as fuel, while seagoing vessels use heavy fuel oil, the informal working group suggests that the Safety Committee should consider this item. It should be checked whether a single entry is sufficient for bilge waters in Table C or whether separate entries should be provided for bilge waters of inland waterway vessels and bilge waters of seagoing vessels.

Proposal:

30. In 1.2.1, “Definitions”, add the following definition for “oil sludge” to read as follows:

“Oil sludge: residual hydrocarbons from the normal operation of seagoing ships, e.g. residues from the treatment of fuel or lubricating oils for main or auxiliary machinery, waste oil obtained by separation from oil filtering installations, oily residues collected in pits and residues of hydraulic and lubricating oils.

Note: In ADN, the definition of MARPOL also includes residues resulting from the treatment of bilge water on board sea-going vessels.”¹

¹ Problems here include:

- The German translation of the MARPOL definition is not entirely accurate
- The terms used in the FR definition in MARPOL deviate from the current ADN terms (some terms are translated differently in ADN)

The FR translation proposed here remains as close as possible to the German proposal, while taking into account the terminology used in ADN. Therefore, the FR wording for ADN differs slightly from the FR definition of MARPOL.

Proposal:

31. Add the following entry to Table C:

(1)	(2)	(3a)	(3b)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
UN No. or substance identification No.	Name and description	Class	Classification	Packing group	Dangers	Type of tank vessel	Cargo tank design	Cargo tank type	Cargo tank equipment	Opening pressure of the high-velocity vent valve in kPa	Maximum degree of filling in %	Relative density at 20 °C	Type of sampling device	Pump room below deck permitted	Temperature class	Explosion group	Anti-explosion protection required	Equipment required	Number of cones/lights	Additional requirements/Remarks
3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (OIL SLUDGE)	9	M6	III	9+CMR+N1	N	2	3		10	97		3	Yes			No	PP, EP, TOX, A	0	

F. Multilateral agreement M 018 and remark 44

32. Multilateral agreement M 018 allows tank vessels whose list of substances includes substances assigned to explosion group II B to continue to carry these substances until the renewal of the certificate of approval after 31 December 2018, even if these tank vessels are only equipped with flame arresters for explosion group II B3. Vessels that have to renew their certificate of approval before 31 December 2018 will receive a list of substances based on ADN 2017, i.e. without explosion group II B substances. On 1 January 2019, a new list of substances will be requested comprising substances of explosion group II A and explosion subgroups II B1, II B2 and II B3 on the basis of ADN 2019.

33. Since more precise information will be available on the number of vessels concerned and the period during which no substances of explosion subgroups II B1, II B2 and II B3 may be carried by these vessels, it is not considered necessary to amend the multilateral agreement in the near future.

34. Prior to the meeting, the informal working group received a series of measurement results concerning the determination of the maximum safe gap and announcements of such measurements. This led the informal working group to exchange views on the treatment of such measurement results and the manner in which they should be taken into account in ADN requirements.

35. The informal working group expressed its incomprehension over the fact that, in certain cases, inland navigation is confronted with the obligation to determine the maximum safe space for dangerous goods to be transported and thus to assign them to explosion groups. In the view of the informal working group, this practice cannot be based on existing requirements in the field of dangerous substances and goods.

36. At the end of the discussion, the informal working group agreed on the following basic principles:

(a) The determination of the maximum experimental safe gap is similar to the determination of other physico-chemical data and other security settings (e.g. flashpoint, vapour pressure or boiling point). This means that there are no separate procedures for authorizing, certifying, recognizing or evaluating these data. In particular, where test results from competent authorities are available, the informal working group sees no fundamental reason to make the use of these results subject to further testing or evaluation.

(b) According to the informal working group, given that it is not a matter of addressing safety gaps, it is the responsibility of the parties concerned to apply directly to the ADN Safety Committee through its representatives for changes to the requirements allowing assignments to less stringent explosion groups/subgroups and thus simplified carriage conditions.

37. According to the remark 44 adopted for ADN 2019, in Table C, a substance may be assigned to the relevant entry with explosion group II B3 in column (16) only where there is measurement data or verified information in accordance with IEC 60079-20-1 or equivalent that allows for an assignment to subgroup II B3 of explosion group II B. However, this wording implies that substances of explosion subgroups II B2 and II B1 and explosion group II A should still be assigned to the entries of explosion group II B in column (16).

Proposal

38. The informal working group therefore proposes to amend the wording of remark 44 to read as follows (the added text is underlined):

“44. A substance shall only be assigned to this entry where there is measurement data or verified information in accordance with IEC 60079-20-1 or equivalent that allows for an assignment to ~~subgroup~~subgroups II B3, II B2 or II B1 of explosion group II B or explosion group II A.”
