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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-third session

Geneva, 22-26 January 2024

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

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I. Attendance

1. The 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) held its forty-third session in Geneva from 22 to 26 January 2024, with Mr. B. Beldman (Netherlands) as Chair and Mr. B. Birkhuber (Austria) as Vice-Chair.
2. Representatives of the following countries took part in the work of the session: Austria, Belgium, Bulgaria, France, Germany, Luxembourg, Netherlands, Romania, Russian Federation and Switzerland.
3. The following intergovernmental organizations were represented: the Central Commission for the Navigation of the Rhine (CCNR), the Danube Commission and the European Union.
4. The following non-governmental organizations were also represented: European Association of Trade in Cereals, Oilseeds, Rice, Pulses, Olive Oil, Oils and Fats, Animal Feed and Agrosupply (COCERAL); Association of professional portside storekeepers in the food and feed chain (UNISTOCK); European Barge Union, European Skippers Organisation (EBU/ESO); European Bulk Oil Traders' Association (EBOTA); European Chemical Industry Council (Cefic); Federation of European Tank Storage Associations (FETSA); FuelsEurope; International Committee for the Prevention of Work Accidents in Inland Navigation (CIPA) and Recommended ADN Classification Societies.

II. Organizational matters

Informal document: INF.14/Rev.1 (Secretariat)

5. The Safety Committee noted that the session was again organized as in-person meetings following the format as suggested in informal document INF.14/Rev.1.
6. The Safety Committee welcomed the efforts done by the ECE secretariat services for making available in all four languages the numerous official documents listed on the agenda. The secretariat thanked for the advanced information by delegates on the number of official documents that they expect to submit to allow a more accurate forecast of documents submitted.

III. Adoption of the agenda (agenda item 1)

Documents: ECE/TRANS/WP.15/AC.2/87 (Secretariat)
ECE/TRANS/WP.15/AC.2/87/Add.1 (Secretariat)

Informal document: INF.1/Rev.1 (Secretariat)

7. The Safety Committee adopted the agenda prepared by the secretariat, as amended by informal document INF.1/Rev.1 to take account of informal documents INF.1 to INF.34.

IV. Election of officers for 2024 (agenda item 2)

8. On the proposal of the representative of Belgium, the Safety Committee elected Mr. B. Beldman (Netherlands) as Chair and re-elected Mr. B. Birkhuber (Austria) as vice-Chair, for its sessions in 2024.

V. Matters arising from the work of United Nations bodies or other organizations (agenda item 3)

Work of the Inland Transport Committee

9. The Safety Committee noted that the annual session of the Inland Transport Committee (ITC) was scheduled to be held in Geneva from 20 to 23 February 2024. Building on recommendations by the Inland Transport Committee (ITC) and Bureau debates, the general theme of the policy segment will be on “Taking ambitious climate action – Moving towards decarbonized inland transport by 2050” (ECE/TRANS/2024/1). This theme will provide an opportunity to further discuss necessary policy, regulatory and institutional approaches to move towards decarbonization of inland transport and set the scene for the adoption of the ITC Strategy on Reducing Greenhouse Gas Emissions from Inland Transport (ECE/TRANS/2024/3) with the overall aspirational goal of net zero emissions from inland transport by 2050.

10. The annotated provisional agenda (ECE/TRANS/343/Add.1) as well as the documentation for the ITC session are available at the UNECE secretariat’s website¹.

VI. Implementation of the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN) (agenda item 4)

A. Status of ADN

11. The Safety Committee took note that the number (18) of contracting parties remained unchanged.

12. Proposed corrections contained in ECE/TRANS/WP.15/AC.2/84, annex II and ECE/TRANS/WP.15/AC.2/86, annex I, were communicated to Contracting Parties on 22 October 2023 for acceptance (see C.N.452.2023.TREATIES-XI-D-6). Corrections were deemed accepted on 20 January 2024.

B. Special authorizations, derogations and equivalents

1. Planned conversion of the MTS "Chicago" for the use of methanol as fuel

Informal document: INF.28 (Netherlands)

13. The Safety Committee followed with interest the presentation in informal document INF.28 on the project of converting the vessel MTS "Chicago" for the use of methanol as fuel for its propulsion. Recalling the ITC request on the need to reduce greenhouse gas emissions in the transport sector, it considered it as an important step forward to greening the inland navigation.

14. The Safety Committee welcomed the initiative by the Netherlands and the Recommended ADN Classification Societies to assist the vessel owner in their administrative process for a special authorization by the ADN Administrative Committee to grant the recommendation for the transport of dangerous goods in the vessel.

¹ <https://unece.org/info/Transport/Inland-Transport-Committee/events/385922>

2. Requests for a recommendation on the use of hydrogen fuel cells or methanol as fuel for the propulsion of a vessel

Documents: ECE/TRANS/WP.15/AC.2/2024/31 (Netherlands)
ECE/TRANS/WP.15/AC.2/2024/32 (Netherlands)
ECE/TRANS/WP.15/AC.2/2024/33 (Netherlands)
ECE/TRANS/WP.15/AC.2/2024/34 (Netherlands)

Informal documents: INF.4, INF.5, INF.6, INF.7 and INF.8 (Netherlands)
INF.16 (CCNR)

15. Recalling the presentations by the vessel owners on their specific projects at the previous session, and the importance of the agreed upon procedure, the representative of the Netherlands provided further detailed information on the specific projects (see informal documents INF.4, INF.5, INF.6, INF.7 and INF.8).

16. Following the discussion on document ECE/TRANS/WP.15/AC.2/2024/31, some delegates maintained their concerns raised during the previous session and reiterated the need of more detailed information needed with respect to the possible interactions between the alternative fuel and the dangerous goods carried in view of preparing an accurate recommendation to the ADN Administrative Committee for a final decision on the transport of dangerous goods in the vessel.

17. Due to the similarity of the documents, the representative of the Netherlands withdrew documents ECE/TRANS/WP.15/AC.2/2024/31, ECE/TRANS/WP.15/AC.2/2024/32, ECE/TRANS/WP.15/AC.2/2024/33 and ECE/TRANS/WP.15/AC.2/2024/34. He invited all delegates to send him their written comments by the end of February 2024, at the latest and volunteered to come back to the next session with a new set of updated documents taking into account the comments received.

18. The Safety Committee agreed to resume consideration of this subject at its August 2024 session.

C. Interpretation of the Regulations annexed to ADN

Use of remote control technology on inland vessels transporting ADN goods

Informal document: INF.19 (EBU/ESO)

19. Most representatives who took the floor expressed their preference to wait in a first step for regulations on the subject for inland navigation in general, before discussing the possibility of using this technology for vessels carrying dangerous goods and the necessary amendments to the ADN. This would also allow to learn from the experience of the activities and work done at CCNR. It was agreed that a more detailed discussion in the ADN Safety Committee was needed in future to clarify the responsibilities of the master and crew member on board with special ADN knowledge, in particular for phase 3 b.

D. Training of experts

Informal document: INF.24 (EBU/ESO)

20. Regarding the availability of ADN examinations in English, the Safety Committee noted that it was up to each Contracting Party to organize and offer these examinations and trainings in their national language(s), as well as, optionally, in other languages as needed.

21. The Safety Committee agreed that there was no need to amend in this respect the provisions of the ADN. It was suggested that the informal working group on the training of experts might further elaborate on this subject at its next meeting scheduled to be held from 19-21 March 2024.

22. The Safety Committee noted the information that the informal working group on e-learning of the RID/ADR/ADN Joint Meeting currently consider a combination of in-person units and asynchron e-learning modules using elements for self-studying other than video

systems. All interested delegations were invited to participate in the forthcoming informal working group meeting, a half-day video conference on Wednesday, on 31 January 2024.

E. Matters related to classification societies

1. 1.15.3.8 of ADN: Classification societies – quality assurance systems

Document: ECE/TRANS/WP.15/AC.2/2024/22 (Austria, Belgium, Germany and Luxembourg)

23. Noting that the validity of the certificates submitted by the Classification Societies have already expired, the Safety Committee requested the Recommended ADN Classification Societies to submit an official document with current evidence of certification in accordance with standard EN ISO/IEC 17020:2012 (except 8.1.3) for consideration at its next session.

2. List of classification societies

24. The Safety Committee noted no change in the list of classification societies recognised by ADN Contracting Parties which can be found at the following link: <https://unece.org/classification-societies>.

VII. Proposals for amendments to the Regulations annexed to ADN (agenda item 5)

A. Work of the RID/ADR/ADN Joint Meeting

Document: ECE/TRANS/WP.15/AC.2/2024/30 (Secretariat)

Informal documents: INF.9 (Austria)
INF.20 and INF.21 (Secretariat)

25. The Safety Committee adopted the consolidated list of amendments in document ECE/TRANS/WP.15/AC.2/2024/30 relevant for ADN adopted by the RID/ADR/ADN Joint Meeting in 2022-2023 and by the Working Party on the Transport of Dangerous Goods (WP.15) for entry into force on 1 January 2025, with some changes (see annex I). The Safety Committee agreed that the transitional measure in 1.6.1.54 was relevant for ADN and decided to keep the proposed amendment. The informal working group on substances was invited to supplement in Table A of Chapter 3.2 the relevant information for columns 8 to 13 for the new entries, and to identify possible consequential amendments to Table C resulting from the proposed amendments to Table A of Chapter 3.2. The Safety Committee did not provide comments on the draft amendments listed in Part II of document ECE/TRANS/WP.15/AC.2/2024/30, subject to further consideration by the RID/ADR/ADN Joint Meeting at its forthcoming session in March 2024.

26. The Safety Committee also adopted the amendments relevant to ADN proposed in informal document INF.21 containing additional amendments adopted by WP.15 at its 114th session, including the corrections proposed by the secretariat in informal document INF.20 (see annexes I, II and III).

27. On the changes proposed in informal document INF.9 on the degree of filling and filling ratio, the Safety Committee agreed to resume consideration of this subject at the next session on the basis of an official document.

28. The Safety Committee was informed about the ongoing work of the informal working group on references to the competent authorities in ADR, RID and ADN. All interested delegates were invited to participate.

B. Other proposals

1. Degassing and at berth

Document: ECE/TRANS/WP.15/AC.2/2023/43 (Belgium, Netherlands and CCNR)

Informal document: INF.30 (Belgium, Netherlands and CCNR)

29. The Safety Committee adopted the amendments proposed in document ECE/TRANS/WP.15/AC.2/2023/43, including the corrections in informal document INF.30 (see annexes I and II).

2. Definition of "Inspection body"

Document: ECE/TRANS/WP.15/AC.2/2023/46 (France, Germany and the Netherlands)

30. The Safety Committee adopted the amendments proposed in ECE/TRANS/WP.15/AC.2/2023/46 to differentiate the definition of "inspection body" provided in article 3 of the ADN Agreement from the definition of the same term in 1.2.1 of the regulations annexed to the ADN, added for the purpose of harmonization with RID/ADR (see annex I). The representative of Romania expressed his preference to align the definition of "inspection body" with the one used in ES-TRIN.

3. Contradiction between 9.3.x.51 and 7.2.3.51.4

Document: ECE/TRANS/WP.15/AC.2/2024/2 (Austria)

31. Following the discussion, the Safety Committee was not in the position to adopt the proposed amendments. To further address the concerns expressed, the representative of Austria offered to review his proposal and to submit a revised document for consideration at the next session of the Safety Committee.

4. 7.2.4.15.1 of ADN: reference to CDNI

Document: ECE/TRANS/WP.15/AC.2/2024/3 (Germany)

32. The representative of Germany withdrew the document and volunteered to re-submit a new document for the next session.

5. 7.1.3.31, 7.2.3.31.1 of ADN: Engines, reference to ES-TRIN

Document: ECE/TRANS/WP.15/AC.2/2024/4 (Germany)

Informal document: INF.29 (Belgium)

33. The Safety Committee noted the purpose of document ECE/TRANS/WP.15/AC.2/2024/4 and informal document INF.29, and preferred to keep the already adopted amendments to the ADN for entry into force on 1 January 2025. On the provisions for the use of new innovative technologies for the propulsion of vessels in general, it was noted that further work was in the process within the CESNI/PT working group. Further work is also necessary to find a solution on the gap in the entry into force of the regulations annexed to the ADN and the ES-TRIN.

34. The representatives of Germany and the Netherlands offered to prepare for a future session, jointly with Belgium and Switzerland, a proposal on general terms of acceptance for the use of greener fuels or types of propulsion systems for vessels carrying dangerous goods.

6. Derogation for unmanned pushed barges in 9.3.3.60

Document: ECE/TRANS/WP.15/AC.2/2024/1 (Austria)

Informal document: INF.33 (Austria)

35. The Safety Committee adopted the amendments proposed in paragraphs 8, 9 and 10 of informal document INF.33, but without the text in square brackets (see annex I).

7. 1.16.1.2.1 of ADN: Form and content of the certificate of approval - exhaustive indications

Document: ECE/TRANS/WP.15/AC.2/2024/5 (Germany)

36. The Safety Committee adopted the proposed amendments to 1.16.1.2.1 of ADN (see annex I).

8. 1.6.7 of ADN: Transitional provisions for vessels

Document: ECE/TRANS/WP.15/AC.2/2024/6 (Germany)

37. The Safety Committee adopted the amendments proposed in document ECE/TRANS/WP.15/AC.2/2024/6 on transitional provisions for vessels, with some modifications (see annex I).

9. Proposed changes to 9.3.4 of ADN

Document: ECE/TRANS/WP.15/AC.2/2024/11 (Recommended ADN Classification Societies)

Informal document: INF.2 (Recommended ADN Classification Societies)

38. On the amendments in paragraph 5 of document ECE/TRANS/WP.15/AC.2/2024/11, most delegates who took the floor did not support the proposed text and recalled previous considerations on this item. Some delegates were wondering why an increased capacity of more than 1000 m³ was proposed. Others underlined the need of more accurate provisions on the calculation methodology, the software and the rupture/failure criteria for tank vessels. The representative of the Recommended ADN Classification Societies clarified that the document was intended as an update in the progress of work and offered to review the proposal for consideration at a further session.

10. 7.2.4.22 of ADN: Opening of openings

Documents: ECE/TRANS/WP.15/AC.2/2024/7 (Germany)
ECE/TRANS/WP.15/AC.2/2024/20 (FuelsEurope)

Informal document: INF.32 (FuelsEurope)

39. Recalling the discussion on document ECE/TRANS/WP.15/AC.2/2023/47 at the previous session, the Safety Committee welcomed the amendments proposed in document ECE/TRANS/WP.15/AC.2/2024/7. The representatives of the Netherlands and of EBU/ESO orally proposed some further amendments and clarifications. The Safety Committee adopted the proposed amendments to ADN for the entry into force on 1 January 2025 together with some additional changes (see annex I).

40. It was noted that for the change proposed in 7.2.4.20 by EBU/ESO, a more detailed description of the measures to be taken to avoid vapors escaping from the cargo tanks may be needed. It was agreed to further discuss this topic, taking into account practical experience, and to add the necessary provisions in ADN 2027.

41. The Safety Committee noted a number of comments on the proposal in informal document INF.32, namely the need for a clear definition of “stabilizer” and a list of the additives that could be added to the cargo tanks. It was also mentioned that the opening of openings should take place for safety reasons only. The representative of FuelsEurope may come back, if necessary, at a future session with an revised proposal taking into account the comments received.

11. Proposal of amendment to 7.1.5.0.2 of the Regulations annexed to ADN

Document: ECE/TRANS/WP.15/AC.2/2024/9 (France)

Informal document: INF.18 (EBU/ESO)

42. The Safety Committee adopted the amendments proposed in informal document INF.18 as amended (see annex I).

12. Proposal for a new entry of UN No. 1300 Turpentine Substitute in Table C

Document: ECE/TRANS/WP.15/AC.2/2024/10 (Cefic)

Informal document: INF.11 (Cefic)

43. The Safety Committee adopted the proposed amendments to Table C of the ADN (see annex I). It was noted that the representatives of Belgium, the Netherlands and Cefic would further discuss the need for a multilateral agreement.

13. 8.1.6.2 and standard ISO 20519:2017

Document: ECE/TRANS/WP.15/AC.2/2024/13 (Netherlands)

44. The Safety Committee adopted the proposal to update in ADN the reference to standard ISO 20519:2021, as amended (see annex I).

45. Following an oral suggestion by the representative of the Netherlands, the Safety Committee also adopted the proposed transitional provisions (see annex I).

14. Proposal for an amendment of Table C for substances with CMR properties according to REACH

Document: ECE/TRANS/WP.15/AC.2/2024/15 (Belgium)

46. The Safety Committee exchanged views on developing criteria on how and when to add in Table C substances that are reclassified. It noted that the UN Sub-Committee of Experts on the Transport of Dangerous Goods (TDG) had agreed in December 2023 to the proposal from Canada to lead an informal working group to develop a comprehensive approach following the reclassification of existing entries in the dangerous goods list. The secretariat was requested to report back on the outcome of discussions on this subject within the TDG Sub-Committee. The representatives of Belgium and Germany volunteered to coordinate their positions on a national level.

47. The Safety Committee invited all other delegates to also coordinate with their homologues representing their country in the TDG Sub-Committee and agreed to resume discussion at the next session awaiting the feedback from the TDG informal working group.

15. Proposal for two additions in 1.6.7.2 General transitional provisions

Documents: ECE/TRANS/WP.15/AC.2/2024/17 (Belgium)

ECE/TRANS/WP.15/AC.2/2024/25 (EBU/ESO)

48. The Safety Committee agreed on the need to clarify and, if possible, to simplify the process for updating the references in the ADN to international standards and to develop a procedure to review and update standards in the ADN. The representative of France suggested to modify the usual rule in such a way that a new safety standard may be used on a voluntary basis before a certain date defined by the Safety Committee and shall be used after that date. The representative of Romania supported that suggestion and added that a new annex to the regulations annexed to the ADN could list all standards referred to in the provisions, including the date of mandatory application.

49. The representative of Germany felt that using a general transitional provision of twenty years would lead to the situation of forgetting to do regular verification of a revision to a standard. These updates usually result in a benefit or improvement in the application of ADN. He also recalled previous proposals to install an informal working group to verify revision of standards as done by the RID/ADR/ADN Joint Meeting informal working group on standards. Unfortunately, this group does however not discuss references specific to ADN.

50. The representative of Belgium offered to review his proposal and to come back at the next session with a new proposal taking into account the comments received. However, he sought the Safety Committee to guard against a throwaway culture.

51. Most of the delegates who took the floor did not support the amendments proposed in paragraph 20 of document ECE/TRANS/WP.15/AC.2/2024/25 to extend again the transitional provision for gas detectors.

16. Definition of (main) engine room and boiler room

Document: ECE/TRANS/WP.15/AC.2/2024/19 (Recommended ADN Classification Societies)

52. The Safety Committee adopted the amendments proposed in paragraphs 8, 15 and 21 of document ECE/TRANS/WP.15/AC.2/2024/19, as amended (see annex I).

17. Proposal for an amendment of 5.4.1 on information required in the transport document in case of the carriage of waste

Document: ECE/TRANS/WP.15/AC.2/2024/21 (Belgium)

53. The Safety Committee adopted the proposed amendments to 5.4.1.1.3 (see annex I).

18. Correction to 9.3.2.22.4 (b) of ADN — Vacuum valve with detonation-proof flame arrester

Document: ECE/TRANS/WP.15/AC.2/2024/23 (EBU/ESO)

54. The Safety Committee adopted the proposed amendments (see annex I).

19. Amendment of the definition for "Safety valve" in 1.2.1 of ADN and consequential amendments

Document: ECE/TRANS/WP.15/AC.2/2024/24 (EBU/ESO)

55. The Safety Committee adopted the amendments proposed in paragraphs 2 and 3 of document ECE/TRANS/WP.15/AC.2/2024/24 (see annex I).

20. Proposal for correction of paragraph 7.2.2.19.3 – revised version of document ECE/TRANS/WP.15/AC.2/2023/18

Document: ECE/TRANS/WP.15/AC.2/2024/26 (Recommended ADN Classification Societies)

56. The Safety Committee adopted the proposed amendments (see annex I).

21. Proposal for an amendment of the provisions related to sampling for substances with carcinogenic, mutagenic or toxic to reproduction (CMR) properties

Document: ECE/TRANS/WP.15/AC.2/2024/16 (Belgium)

Informal document: INF.34 (Belgium)

57. The Safety Committee adopted the amendments proposed in paragraphs 11 to 13 of informal document INF.34, as amended (see annex I).

22. The reclassification of UN No. 1918, ISOPROPYLBENZENE (cumene) and substances containing cumene at or above 0.1 per cent

Document: ECE/TRANS/WP.15/AC.2/2024/18 (FuelsEurope)

58. Following the report of the informal working group on substances (see paras. 66-68 under item 6 below), the Safety Committee adopted the proposed amendments in option 1 of document ECE/TRANS/WP.15/AC.2/2024/18, including some additional modifications (see annex VI). To avoid the need for a transitional provision and to allow the loading facilities to implement the amendments, it was agreed that the adopted amendments to the regulations annexed to ADN shall enter into force on 1 January 2027.

23. Proposal of amendment to 9.3.2.21.7 and 9.3.3.21.7 pressure alarm on type C- and type N-vessels

Document: ECE/TRANS/WP.15/AC.2/2024/27 (EBU/ESO)

59. Some delegates who took the floor supported in principle the proposal. Others raised concerns and felt that more work was necessary to clarify the instructions and measures to be taken on the vessel and shore sides in the case loading/unloading operations were stopped due to an overpressure alarm. The representative of EBU/ESO volunteered to prepare for the next session an updated proposal, taking into account the feedback received.

24. Maximum content per receptacle of cargo samples on board of "supply vessels or other vessels delivering products for the operation of vessels"

Document: ECE/TRANS/WP.15/AC.2/2024/28 (EBU/ESO)

60. The Safety Committee adopted the proposed amendments to 7.2.4.1.4 of ADN, with an additional modification (see annex I).

25. ADN Checklist

Document: ECE/TRANS/WP.15/AC.2/2024/29 (Netherlands)

Informal documents: INF.3 (Netherlands)
INF.26 (Belgium, Netherlands and CCNR)
INF.31 (Belgium)

61. The Safety Committee welcomed the proposed amendments and noted several comments. It was reconfirmed that the checklist needed to be updated and shall be used on a mandatory basis. One of the proposed approaches on how to go forward was that the checklist could be removed from Chapter 8 and inserted into a separate document which would then be adopted by the ADN Administrative Committee, published on the UNECE website and referenced in ADN. It was agreed to discuss at a later timepoint the legal nature of the new checklist and to avoid conflicts with the responsibilities set out in Chapter 1.4 of the ADN.

62. Following the discussion, it was agreed to resume consideration of this subject at the next session on the basis of a new proposal, jointly prepared by Belgium, Germany and the Netherlands, and to take account of the comments received. All interested delegations and representatives were invited to send in their further remarks to the Dutch delegation.

63. After receiving the remarks, the Dutch delegation would circulate a proposed text to the parties interested and, after receiving their feedback, would organize an online meeting to discuss the proposed amendments to the checklist.

26. Any other proposals

Informal documents: INF.15, INF.22, INF.23, INF.25 and INF.27 (EBU/ESO)

64. Due to lack of time, the Safety Committee did not consider the documents listed under this sub-item and agreed to defer those to the next session. The representative of EBU/ESO was invited to resubmit in due time the documents containing amendments to the ADN as official documents for consideration at the next session.

C. Checking of amendments adopted at previous sessions

Document: ECE/ADN/2024/1 (Secretariat)

Informal document: INF.13 (Germany)

65. The Safety Committee adopted the amendments proposed in document ECE/ADN/2024/1 and informal document INF.13 with some additional modifications (see annex I).

VIII. Reports of informal working groups (agenda item 6)

A. Report of the thirteenth meeting of the informal working group on substances

Document: ECE/TRANS/WP.15/AC.2/2024/8 (CCNR)

66. The Safety Committee noted the outcome of the thirteenth meeting of the informal working group on substances and welcomed the good progress done by the group at its meeting on 13-14 September 2023. It adopted the amendments in proposals 1 to 9 of document ECE/TRANS/WP.15/AC.2/2024/8, as amended (see annex I).

67. The Safety Committee also adopted the proposed amendment in paragraph 16 to delete for entry UN 2924 remark 44 from column (20) of Table C (see annex I).

68. On section H. Non-measurable substances for which a toximeter is required, the Safety Committee acknowledged the opinion of the informal working group that measurements were always preferable to calculations and that this topic would be further examined at the next meeting. All delegates were invited to participate in that meeting. On sections I. Loading-on-Top – “Positive list” and J. Classes other than 3, 6.1, 8 and 9 in 3.2.3.3 (flowchart) and 3.2.4.3 (criteria for assignment), the Safety Committee invited the informal working group to continue its work.

B. Report of the third meeting of the informal working group on loading and unloading instructions

Document: ECE/TRANS/WP.15/AC.2/2024/12 (Netherlands)

69. The Safety Committee noted the report of the third meeting of the informal working group and encouraged the group to continue its work. The next meeting of the informal working group was scheduled to be held on 9-10 of April 2024.

C. Report of the third meeting of the informal working group on certificates and other shipboard documents in electronic form

Document: ECE/TRANS/WP.15/AC.2/2024/14 (Netherlands)

70. The Safety Committee noted the outcome of the third meeting of the informal working group held on 17-18 October 2023. It adopted the amendments proposed in paragraphs 11 to 16 of document ECE/TRANS/WP.15/AC.2/2024/14, as amended (see annex I).

71. The informal working group would continue their discussion on the equivalence of e-signatures and the options on how to enable dematerialization. It was noted that the next meeting of the informal working group was scheduled to be held back to back with the informal working group on loading and unloading instructions from 10 to 11 April 2024.

D. Minutes of the twenty-fifth meeting of the Group of Recommended ADN Classification Societies

Informal document: INF.10 (Recommended ADN Classification Societies)

72. Due to lack of time, it was agreed to defer this item to the next session.

E. Correspondence group on fumigated cargo - Report on a face-to-face meeting

Informal document: INF.17 (Germany on behalf of the Chair of the correspondence group)

73. The Safety Committee noted the report of the correspondence group on fumigated cargo. The representative of Germany, leading the correspondence group, announced that the next meeting was scheduled to be held in Bonn (Germany) from 12 to 13 March 2024 and he invited all delegates to send him their written comments on the report.

IX. 2030 Agenda for Sustainable Development (Circular economy, sustainable use of natural resources and Sustainable Development Goals) (agenda item 7)

74. Due to lack of time, the Safety Committee agreed to defer discussion of this item to the next session.

X. Programme of work and calendar of meetings (agenda item 8)

75. The Safety Committee noted that its next session would be held in Geneva from 26-30 August 2024 and that the thirty-second session of the ADN Administrative Committee was scheduled to take place on 30 August 2024. The deadline for the submission of official documents for these sessions is 31 May 2024.

76. It was recalled that the Safety Committee, at its forty-fourth session, would only consider for adoption and entry into force on 1 January 2025, additional amendments and corrections to already adopted texts or proposals to ensure harmonization with the provisions of the 2025 editions of RID and ADR. All other proposals for amendments submitted for consideration to that session would be considered for entry into force on 1 January 2027.

XI. Any other business (agenda item 9)

A. Requests for consultative status

Informal documents: INF.12 (COCERAL)
INF.16 of the forty-second session (UNISTOCK Europe)

77. The Safety Committee noted the information provided by the representative of COCERAL and UNISTOCK on their status of memberships and the activities in the food and feed chain, in particular their expertise in the area of fumigation of cargo. The Safety Committee expected to finalise its work in this area in the next three years and, thus, endorsed their requests for consultative status during this period. It welcomed their participation in and contributions to the future sessions.

B. Tributes to M. P. Dufour (France)

78. Learning that M. Pierre Dufour would soon retire and no longer attend the sessions, the Safety Committee expressed its deep appreciation and gratitude for his excellent contributions to the work of the committee over the last thirteen years. The Safety Committee thanked him with a long applause and wished him a long and happy retirement.

XII. Adoption of the report (agenda item 10)

79. The Safety Committee adopted the report on its forty-third session on the basis of a draft prepared by the secretariat.

Annex I

[Original: English and French]

Proposed amendments to the Regulations annexed to ADN for entry into force on 1 January 2025

Chapter 1.2

1.2.1 In the definition for *Gas detection system*, amend the first paragraph to read as follows:

“means a steady state monitoring system with direct-measuring sensors capable of detecting in time significant concentrations of flammable gases from the cargo at concentrations below their (LEL) and capable of activating the alarms when a limiting value is exceeded. It must be calibrated for n-Hexane or for a gas prescribed by the system’s manufacturer. The threshold level of the sensors shall be set at not more than 10% of the LEL of n-Hexane or of the calibration gas prescribed by the system’s manufacturer.”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/8)

1.2.1 In the definition for *Gas detector*, amend the first sentence of the second paragraph to read:

“The maximum detection level of the sensors is 5% of the LEL of methane or the gas prescribed by the equipment manufacturer.”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/8)

1.2.1 Amendment to the definition for *Inspection body* does not apply to the English text.

(Reference document: ECE/TRANS/WP.15/AC.2/2023/46)

1.2.1 In the definition for *Safety valve* delete "spring-loaded".

(Reference document: ECE/TRANS/WP.15/AC.2/2024/24)

1.2.1 In the definition for *Sampling opening* add the following sentence at the end:

“Other cargo tank openings, except cargo tank hatches, shall be deemed to be a sampling opening if they comply with the aforementioned requirements.”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/7)

1.2.1 Add the following new definitions in alphabetical order:

“*Boiler room* means a space housing a fuel-operated installation designed to produce steam or heat a thermal fluid;”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/19)

“*Engine room* means a space where combustion engines are installed;”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/19)

“*Main engine room* means a space where the propulsion engines are installed;”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/19)

Chapter 1.6

1.6.7.2.1.1 In the Table of general transitional provisions: Dry cargo vessels, delete the following transitional provisions:

Paragraphs	Subject
8.6.1.1 8.6.1.2	Changes to certificate of approval
9.1.0.12.1	Ventilation of holds
9.1.0.12.3	Ventilation of service spaces
9.1.0.17.2	Gas-tight openings facing holds
9.1.0.17.3	Entrances and openings in the protected area
9.1.0.32.2	Open ends of the air pipes not less than 0.50 m above the open deck
9.1.0.34.1	Position of exhaust pipes
9.1.0.35	Stripping pumps in the protected area
9.1.0.40.1	Fire extinguishers, two pumps, etc.
9.1.0.41 in conjunction with 7.1.3.41	Fire and naked light
9.2.0.34.1	Position of exhaust pipes
9.2.0.41 in conjunction with 7.1.3.41	Fire and naked light

(Reference document: ECE/TRANS/WP.15/AC.2/2024/6)

1.6.7.2.2.2 In the Table of general transitional provisions: In the transitional provision for 7.2.2.19.3, amend the beginning of the second paragraph to read as follows:

“Vessels moving a pushed convoy or a side-by-side formation shall comply with the requirements of the following sections, subsections and paragraphs: 1.16.1.1, 1.16.1.2, 1.16.1.3, 7.2.2.5, 8.1.4, 8.1.5, 8.1.6.1, 8.1.6.3, 8.1.7, 9.3.3.0.1.1 for the vessel’s hull, 9.3.3.0.4 last line from table 4 for the vessel’s boat, 9.3.3.0.6, 9.3.3.10.1...”. Remainder unchanged.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/26)

1.6.7.2.2.2 In the Table of general transitional provisions: Tank vessels, delete the following transitional provisions:

Paragraphs	Subject
7.2.4.22.3	Sampling from other openings
8.6.1.3 8.6.1.4	Changes to certificate of approval
9.3.3.11.4	Shut-off devices of the loading and unloading piping in the cargo tank from which they come
9.3.1.11.8 9.3.3.11.9	Dimensions of openings for access to spaces within the cargo area
9.3.2.12.1 9.3.3.12.1	Ventilation openings in hold spaces
9.3.1.12.2 9.3.3.12.2	Ventilation systems in double-hull spaces and double bottoms
9.3.1.12.3 9.3.2.12.3 9.3.3.12.3	Height above the deck of the air intake for service spaces located below deck
9.3.1.12.6 9.3.2.12.6 9.3.3.12.6	Permanently installed devices according to 9.3.x.40.2.2 (c)

Paragraphs	Subject
9.3.3.17.5 (b), (c)	Approval of shaft passages and displaying of instructions
9.3.1.17.6 9.3.3.17.6	Pumproom below deck
9.3.2.20.2 9.3.3.20.2	Intake valve
9.3.3.20.2	Filling of cofferdams with pump
9.3.2.20.2 9.3.3.20.2	Filling of cofferdams within 30 minutes
9.3.3.21.1 (b)	Liquid level gauge
9.3.3.21.1 (g)	Sampling opening
9.3.1.21.3 9.3.2.21.3 9.3.3.21.3	Marking on each level gauge of all permissible maximum filling levels of cargo tanks
9.3.1.21.4 9.3.2.21.4 9.3.3.21.4	Level alarm device independent from the liquid-level gauge
9.3.1.21.5 (a) 9.3.2.21.5 (a) 9.3.3.21.5 (a)	Socket close to the shore connections of the loading and unloading piping and switching off of vessel's pump
9.3.1.21.7 9.3.2.21.7 9.3.3.21.7	Vacuum or overpressure alarms in cargo tanks for the carriage of substances without remark 5 in column (20) of Table C of Chapter 3.2
9.3.1.21.7 9.3.2.21.7 9.3.3.21.7	Temperature alarms in cargo tanks
9.3.1.22.4	Prevention of spark-formation by closure devices
9.3.1.22.3 9.3.2.22.4 (a) 9.3.3.22.4 (a)	Position of exhaust outlets of pressure relief valves/high velocity vent valves above the deck
9.3.2.22.4 (a) 9.3.3.22.4 (e)	Set pressure of relief valve/high-velocity vent valve
9.3.2.25.1 9.3.3.25.1	Shutdown of cargo pumps
9.3.2.25.8 (a)	Ballasting suction pipes located within the cargo area but outside the cargo tanks
9.3.2.25.9 9.3.3.25.9	Loading and unloading flow
9.3.3.25.12	9.3.3.25.1 (a) and (c), 9.3.3.25.2 (e), 9.3.3.25.3 and 9.3.3.25.4 (a) are not applicable for Type N open with the exception of Type N open carrying corrosive substances (see Chapter 3.2, Table C, column (5), hazard 8)
9.3.1.31.5 9.3.2.31.5 9.3.3.31.5	Temperature in the engine room
9.3.3.34.1	Exhaust pipes
9.3.3.35.3	Suction pipes for ballasting located within the cargo area but outside the cargo tanks
9.3.1.35.4	Stripping installation of the pump-room outside the pump-room
9.3.1.40.1 9.3.2.40.1 9.3.3.40.1	Fire extinguishing systems, two pumps, etc.

Paragraphs	Subject
9.3.1.51 (b) 9.3.2.51 (b) 9.3.3.51 (b)	Surface temperature of outer parts of engines and of their air inlets and exhaust ducts
9.3.1.60 9.3.2.60 9.3.3.60	A spring-loaded non-return valve shall be fitted. The water shall meet the quality of drinking water on board.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/6 as amended)

1.6.7.2.2.2 In the Table of general transitional provisions: Tank vessels: Add the following new transitional provisions to read:

3.2.3.3 and consequential change to Table C	Partly closed sampling device	N.R.M. from 1 January 2025 Renewal of the certificate of approval after 31 December 2024
8.1.6.2	ISO 20519:2021	N.R.M. from 1 January 2025 Renewal of the certificate of approval after 31 December 2040

(Reference documents: ECE/TRANS/WP.15/AC.2/2024/13 as amended and ECE/TRANS/WP.15/AC.2/2024/16 as amended by informal document INF.34)

Chapter 1.16

1.16.1.2.1 At the end of the first sentence, delete “, as appropriate”.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/5)

Chapter 2.1

2.1.2.8 Amend the introductory paragraph to read:

“A consignor who has identified, on the basis of test data, that a substance listed by name in column 2 of Table A or in column (2) of Table C of Chapter 3.2 meets classification criteria for a class or danger that is not identified in column (3a) or (5) of Table A or in column (3a) or (5) of Table C of Chapter 3.2, may, with the approval of the competent authority, consign the substance:”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/8)

2.1.2.8 Amend *Note 2* to read as follows:

“**NOTE 2:** When a competent authority grants such approvals, it should inform the United Nations Sub-Committee of Experts on the Transport of Dangerous Goods in respect of Table A and the ADN Safety Committee in respect of Table C accordingly and submit a relevant proposal of amendment to the Dangerous Goods List of the UN Model Regulations or to Table C of ADN. Should the proposed amendment be rejected, the competent authority should withdraw its approval.”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/8)

Chapter 3.2, Table C

For the following UN Nos, in column (13), replace “3” by “2”:

UN No.	Name and description	Packing group
1171	ETHYLENE GLYCOL MONOETHYL ETHER	III
1172	ETHYLENE GLYCOL MONOETHYL ETHER ACETATE	III
1188	ETHYLENE GLYCOL MONOMETHYL ETHER	III

UN No.	Name and description	Packing group
1203	MOTOR SPIRIT or GASOLINE or PETROL	II
1268	PETROLEUM DISTILLATES, N.O.S. or PETROLEUM PRODUCTS, N.O.S.(NAPHTA) 110 kPa < vp50 ≤ 175 kPa	II
1268	PETROLEUM DISTILLATES, N.O.S. or PETROLEUM PRODUCTS, N.O.S. (NAPHTA) 110 kPa < vp50 ≤ 150 kPa	II
1268	PETROLEUM DISTILLATES, N.O.S. or PETROLEUM PRODUCTS, N.O.S. (NAPHTA) vp50 ≤ 110 kPa	II
1268	PETROLEUM DISTILLATES, N.O.S. or PETROLEUM PRODUCTS, N.O.S (BENZENE HEART CUT) vp50 ≤ 110 kPa	II
1288	SHALE OIL	II
1288	SHALE OIL	III
2265	N,N-DIMETHYLFORMAMIDE	III
3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BILGE WATER, CONTAINS SLUDGE)	III
3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (OIL SLUDGE)	III
3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE; LIQUID, N.O.S. (HEAVY HEATING OIL)	III
3295	HYDROCARBONS, LIQUID, N.O.S. (1-OCTEN)	II
3295	HYDROCARBONS, LIQUID, N.O.S. (POLYCYCLIC AROMATIC HYDROCARBONS MIXTURE)	III
3475	ETHANOL AND GASOLINE MIXTURE or ETHANOL AND MOTOR SPIRIT MIXTURE or ETHANOL AND PETROL MIXTURE, with more than 10% but not more than 90% ethanol	II
3475	ETHANOL AND GASOLINE MIXTURE or ETHANOL AND MOTOR SPIRIT MIXTURE or ETHANOL AND PETROL MIXTURE, with more than 90% ethanol	II

(Reference document: ECE/TRANS/WP.15/AC.2/2024/16 as amended by informal document INF.34)

For UN No. 2924, FLAMMABLE LIQUID, CORROSIVE, N.O.S., packing group III, (with (II B)), in column (20) delete “44”.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/8)

Insert a new entry to read as follows:

(1)	(2)	(3a)	(3b)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1300	TURPENTINE SUBSTITUTE	3	F1	III	3+N2+F	N	3	3			97	0.78	3	yes	T3	IIB ⁴⁾ (II B3)		PP,EX,A	0	44

(Reference documents: ECE/TRANS/WP.15/AC.2/2024/10 and informal document INF.11)

Chapter 3.2

3.2.3.3 and 3.2.4.3 Amend column (13) to read as follows:

“Column (13): Determination of type of sampling device

1 = closed: – Substances to be transported in pressure cargo tanks and in membrane tanks

– Substances with danger 6.1 in column (5) and assigned to packing group I

– Stabilized substances to be transported under inert gas

2 = partly closed: – All other substances for which type C or substances with CMR properties for which type N with closed cargo tanks is required

– Substances with danger CMR in column (5) and for which no closed sampling is required

3 = open: – All other substances”.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/16 as amended by informal document INF.34)

Chapter 3.3

SP 674 (d) After “inspection bodies” insert “(as defined in 1.2.1)”.

(Document de référence : ECE/TRANS/WP.15/AC.2/2023/46)

Chapter 5.4

5.4.1.1.3.1 Amend the second and third paragraph to read as follows:

“If the provision for waste as set out in 2.1.3.5.5 is applied, the following shall be added to the dangerous goods description required in 5.4.1.1.1 (a) to (d) for carriage in bulk or in packages and to 5.4.1.1.2 (a) to (d) for carriage in tank vessels:

“WASTE IN ACCORDANCE WITH 2.1.3.5.5” (e.g. **“UN 3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II, WASTE IN ACCORDANCE WITH 2.1.3.5.5”**).

The technical name, as prescribed in Chapter 3.3, special provision 274, in case of carriage in bulk or in packages, or as prescribed in paragraph 3.2.3.1, remark 27 in column (20) of Table C of Chapter 3.2, in case of carriage in tank vessels, need not be added.”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/21)

Chapter 7.1

7.1.4.14.2 Amendment does not apply to the English text.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/19)

7.1.5.0.2 Amend to read as follows:

“7.1.5.0.2 Vessels carrying the dangerous goods listed in Table A of Chapter 3.2 in packages placed exclusively in containers shall display the number of blue cones or blue lights indicated in the following table instead of the number of blue cones or blue lights indicated in column (12) of Table A of Chapter 3.2:

Number of cones/lights indicated in table A column (12):	Class and packing group of the substance:	Total gross mass:	Number of cones/lights to be displayed:
1 cone/light	Class 2 or PG I	> 130.000 kg	1
	Class 2 or PG I	≤ 130.000 kg	0
	Other classes or PG II or III	All masses	0
2 cones/lights	Class 2 or PG I	> 30.000 kg	2
	Class 2 or PG I	≤ 30.000 kg	0
	Other classes or PG II or III	All masses	0
3 cones/ lights	All classes	All masses	3

(Reference documents: ECE/TRANS/WP.15/AC.2/2024/9 as amended by informal document INF.18 as amended)

Chapter 7.2

7.2.2.6 Delete and insert “7.2.2.6 (Reserved)”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/8)

7.2.2.19.3 Amend as follows:

Replace "9.3.3.0.1" by "9.3.3.0.1.1 for the vessel's hull".

Delete "9.3.3.0.3.1".

Replace "9.3.3.0.5" by "9.3.3.0.4 last line from Table 4 for the vessel's boat".

Add "9.3.3.0.6" in numerical order.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/26)

7.2.3.7.1.3 After the first sentence, insert the following:

“The gas/air mixture from cargo tanks may only be discharged into the atmosphere

(a) through the device for the safe depressurization of cargo tanks (see 9.3.2.22.4 (a), 9.3.2.22.4 (b), 9.3.3.22.4 (a), 9.3.3.22.4 (b)); or

(b) through the sampling opening (see (9.3.2.21.1 (g), 9.3.3.21.1 (g)); or

(c) through the open housing of the flame arrester at the connection point of the cargo tank and the venting piping (see 9.3.2.22.4 (b), 9.3.3.22.4 (d)); or

(d) through a suitable hose that is connected to the venting piping and equipped with a flame arrester preceding the hose (explosion group/subgroup according to column (16) of Table C of Chapter 3.2).”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/7 as amended)

7.2.3.7.2.2 Amend the second paragraph to read as follows:

“The checklist shall be provided at least in languages understood by the master or the expert and the operator of the reception facility. The checklist can be provided electronically if both sides agree, are able to use advanced e-signatures and both sides get a copy.”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/14 as amended)

7.2.3.7.2.3 In the second paragraph delete "spring-loaded".

(Reference document: ECE/TRANS/WP.15/AC.2/2024/24)

7.2.3.51.4 Replace “degassing during berthing” by “degassing at berth”.

(Reference document: ECE/TRANS/WP.15/AC.2/2023/43)

7.2.3.51.7 Replace “degassing during berthing” by “degassing at berth”.

(Reference document: ECE/TRANS/WP.15/AC.2/2023/43)

7.2.3.51.7 Amend the second indent to read as follows:

“- When values below 10% of the LEL of n-Hexane or of the calibration gas prescribed by the manufacturer are reached in the wheelhouse, accommodation and service spaces located outside the cargo area.”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/8 as amended)

7.2.4.1.4 Amend to read as follows:

“7.2.4.1.4. On board supply vessels or other vessels delivering products for the operation of vessels, the maximum content per receptacle of cargo samples referred to in 7.2.4.1.1 may be increased to a maximum of 1 litre per receptacle with a maximum of 500 receptacles. The total quantity of cargo samples in litres must not exceed 250 litres on board of the vessel.”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/28 as amended)

7.2.4.10.3 Amend to read as follows:

“The checklist shall be provided at least in languages understood by the master and the person responsible for the handling at the shore facilities. The checklist can be provided electronically if both sides agree, are able to use advanced e-signatures and both sides get a copy.”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/14 as amended)

7.2.4.22 Amend to read as follows:

“7.2.4.22 Opening of openings of cargo tanks

7.2.4.22.1 7.2.4.22 applies only to type N and type C tank vessels.

By way of derogation from 7.2.3.22 and provided that this is not prohibited by other legal requirements, the opening of cargo tank openings, including when the tanks have not been unloaded, degassed or are not gas-free,

- for cleaning and replacement of flame arrester plate stacks;
- for visual inspection from the deck;
- for sampling;
- for the connection of a tank washing system;
- for gas measurement,
- for the determination of the filling quantity in a cargo tank in exceptional cases; and
- for the subsequent addition of stabilizer in exceptional cases;

is authorized in the following conditions.

7.2.4.22.2 Opening of cargo tanks is permitted only if the vessel is not connected to the shore facility or if the shut-off devices of the vessel and the shore facility are closed.

Opening of openings of cargo tanks is permitted only after the depressurization of the relevant cargo tanks by means of the device for the safe depressurization of cargo tanks prescribed in 9.3.2.22.4 (a) and 9.3.2.22.4 (b) or 9.3.3.22.4 (a) and 9.3.3.22.4 (b).

When explosion protection is required under column (17) of Table C of Chapter 3.2, the opening of cargo tank hatches shall be permitted only if the cargo tanks in question are discharged and the concentration of flammable gases in the tank is less than 10% of the lower explosive limit of the cargo/previous cargo. The results of the measurements shall be recorded in writing. Entry into these cargo tanks is not permitted for the purpose of measuring.

7.2.4.22.3 Opening of openings of cargo tanks loaded with substances for which marking with one or two blue cones or one or two blue lights is prescribed in column (19) of Table C of Chapter 3.2 shall be permitted only when loading has been interrupted for not less than 10 minutes.

7.2.4.22.4 For the replacement of flame arrester plate stacks for the purpose of cleaning or replacement with flame arrester plate stacks of the same design, the following conditions shall be met:

- (a) Cleaning and replacing of the flame arrester plate stack shall be carried out only by trained and qualified personnel;
- (b) Opening is permitted only when the relevant cargo tanks are discharged and the concentration of flammable gases in the cargo tank is less than 10% of the lower explosive limit of the cargo/previous cargo;
- (c) The results of the measurements shall be recorded in writing.

7.2.4.22.5 For repairs on the flame arrester housing, 8.1.7.3 shall apply.

7.2.4.22.6 Visual inspection of the cargo tank from the deck, determination of the cargo tank filling level and subsequent addition of stabilizer are only permitted via the sampling outlet.

7.2.4.22.7 Sampling shall be permitted only by means of the sampling device prescribed in column (13) of Table C of Chapter 3.2 or a device ensuring a higher level of safety.

7.2.4.22.8 In the event of a proven and unexpected failure of the closed or partially closed sampling device connection (see 9.3.x.21.1 (g)), which cannot be remedied immediately, sampling shall be permitted via the open sampling outlet. The occurrence of a fault and the use of the sampling outlet must be recorded in writing or electronically by the master and confirmed in writing by the person appointed by the filler or unloader.

7.2.4.22.9 The operations for the opening of openings shall be carried out using only appropriate low-sparking hand tools.

On board vessels covered by the classification of zones as defined in section 1.2.1, all electrical and non-electrical appliances and devices used for activities on open cargo tanks shall meet the requirements for use in zone 0.

7.2.4.22.10 The duration of opening shall be strictly limited to the time necessary for the activities listed in 7.2.4.22.1. Opening the cargo tanks immediately before and after a thunderstorm as well as during a thunderstorm shall be prohibited.

7.2.4.22.11 The working instructions concerning explosion protection in accordance with 1.3.2.5 shall be available and applied on board.

7.2.4.22.12 Persons who open openings or who are in the immediate vicinity of an opening shall use the equipment prescribed in column (18) of Table C of Chapter 3.2.

7.2.4.22.13 The requirements of 7.2.4.16.8 apply by analogy to visual inspection, filling level determination, gas measurement or stabilizer addition operations after loading.

7.2.4.22.14 If the quantity of the cargo measured by the filler differs from the quantity determined on board by means of measuring instruments, the filling quantity in the cargo tank may be determined manually via the sampling opening using a measuring tape and a thermometer.

The measuring instruments used for determining the filling quantity in cargo tanks shall consist of electrostatically conductive material and shall be electrically connected to the vessel's hull during measuring. The measuring instrument shall be suitable for use in zone 0.

7.2.4.22.15 If an unforeseen extension of the navigation time requires the addition of extra stabilizer to one or more cargo tanks during transport, this is only permitted through the sampling opening. Electrostatic charges shall be prevented.

7.2.4.22.16 The requirements in accordance with 7.2.3.1.4 shall apply additionally for gas measurement.

7.2.4.22.17 The sampling receptacles including all accessories such as ropes, etc., shall consist of electrostatically conductive material and shall be electrically connected to the vessel's hull.

7.2.4.22.18 When closing the sampling opening or the flame arrester housing, the flame arrester should be checked for damage, soiling and correct installation and be repaired, where necessary, before the journey is continued.

7.2.4.22.19 The requirements of 7.2.4.22.1 to 7.2.4.22.11 and of 7.2.4.23 shall not apply to oil separator or supply vessels.

7.2.4.22.20 To wash cargo tanks, only the special connection opening for tank washing systems provided for this purpose or built-in tank washing systems on the cargo tank may be used.

If these special openings or built-in tank washing systems are not available, other measures should be taken to avoid vapours escaping from the cargo tanks.

7.2.4.22.21 The competent authority may permit the opening of openings for reasons not listed in 7.2.4.22.1 under equivalent conditions.”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/7 as amended)

7.2.4.60 Add the following sentence at the end: “If an unmanned pushed barge whose list of substances does not include substances with danger 8 in column (5) of Table C of Chapter 3.2, is not equipped with built in shower and eye and face bath, a mobile shower and mobile eye and face bath have to be provided on board the pushed barge during loading and unloading operations and cargo operations by pumping.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/1 as amended by informal document INF.33)

Chapter 8.1

8.1.2.1 (d) Delete “which may be a copy which can be consulted by electronic means at any time”.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/14)

8.1.2.1 (k) Add the following paragraph at the end:

“The documents listed in paragraphs (c), (d) and (h) may be kept on board electronically in a human-readable format.”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/14 as amended)

8.1.2.2 (h) and 8.1.2.3 (u) Insert a footnote (*) after “test body” to read as follows:

“(*) Notified body, in the frame of Directive 2014/34/EU, or equivalent.”

(Reference document: ECE/TRANS/WP.15/AC.2/2023/46)

8.1.2.2 Add the following paragraph at the end:

“The document listed in paragraph (a) may be kept on board electronically in a human-readable format.”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/14)

8.1.2.3 (s) Replace “degassing during berthing” by “degassing at berth”.

(Reference document: ECE/TRANS/WP.15/AC.2/2023/43)

8.1.2.3 (v) Replace “loading, unloading, degassing, berthing or” by “loading, unloading, degassing at berth or”.

(Reference document: ECE/TRANS/WP.15/AC.2/2023/43)

8.1.2.3 Add the following paragraphs at the end:

“The documents listed in paragraphs (a), (g), (j), (k), (m), (n) and (q) may be kept on board electronically in a human-readable format.

The documents listed in paragraphs (c) may be kept on board electronically in pdf-format according to ISO standard 32000-1, accompanied by an advanced electronic signature according to Regulation (EU) 910/2014, or at least equivalent.”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/14 as amended)

8.1.5.1 In “TOX”, after “with the accessories and instructions” insert a footnote 2 to read as follows:

“² The instructions could be kept on board electronically in a human-readable format.”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/14 as amended)

8.1.6.2 Replace “part 5.5.2 of ISO 20519:2017” by “part 5.5.2 of ISO 20519:2021”.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/13)

Chapter 8.6

8.6.4 In Table 3 of the ADN Checklist, point 6.2, delete "spring-loaded".

(Reference document: ECE/TRANS/WP.15/AC.2/2024/24)

8.6.4 In Table 3 of the ADN Checklist, amend point 10 to read as follows:

“Are all cargo tank hatches and other cargo tanks openings closed or, if appropriate, protected by flame arresters in good condition?”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/7)

Chapter 9.1

9.1.0.12.2 Amendment does not apply to the English text.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/19)

9.1.0.12.3 (b) (v) In subparagraph 1., replace “class T6” by “class T4”.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/8)

9.1.0.40.2.2 Amendment does not apply to the English text.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/19)

9.1.0.95.1 and 9.2.0.95.1, last paragraph Amendment does not apply to the English text.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/19)

Chapter 9.3

9.3.x.12.4 (b) (v) In subparagraph 1., replace “class T6” by “class T4”.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/8)

9.3.x.17.6 In the paragraph after the indents, amend the end to read as follows:

“...actuates a visual and audible alarm when the gas concentration has reached 20% of the LEL of n-Hexane or of the calibration gas prescribed by the system’s manufacturer.”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/8)

9.3.x.40.2.2 Amendment does not apply to the English text.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/19)

9.3.x.60 Replace the sentence “The water shall meet the quality of drinking water on board” by “The water shall meet the minimum quality requirements applicable to drinking water on board vessels.”

(Reference document: ECE/TRANS/WP.15/AC.2/2024/1)

9.3.x.62 In the first sentence delete "spring-loaded".

(Reference document: ECE/TRANS/WP.15/AC.2/2024/24)

9.3.2.15.1, last paragraph Amendment does not apply to the English text.

(Reference document: ECE/TRANS/WP.15/AC.2/2024/19)

9.3.2.22.4 (b), first indent Amend to read as follows:

"- At the connection to each cargo tank, the venting piping shall be equipped with a flame arrester capable of withstanding a detonation and the vacuum valve shall be equipped with a flame arrester capable of withstanding a deflagration; and".

(Reference document: ECE/TRANS/WP.15/AC.2/2024/23)

9.3.3.61 Add the following sentence at the end: “If an unmanned pushed barge is not equipped with a shower and an eye and face bath in accordance with 9.3.3.60, the list of substances according to 1.16.1.2.5 may not include substances with danger 8 in column (5) of Table C of Chapter 3.2.

(Reference documents: ECE/TRANS/WP.15/AC.2/2024/1 as amended by informal document INF.33)

Document ECE/ADN/2024/1 adopted with the following modifications:**Chapter 3.2, Table C**

Delete the following amendments:

“For UN No. 2924, first entry, “FLAMMABLE LIQUID, CORROSIVE, N.O.S.”, packing group III (without “II B3”), delete “; 34” in column (20).

“For UN No. 2924, second entry, “FLAMMABLE LIQUID, CORROSIVE, N.O.S.”, packing group III (with “II B3”), replace “; 34” with “; 44” in column (20).”

Chapter 3.2

3.2.3.3 and 3.2.4.3, Column (20): Replace existing amendment to Remark 42 by:

“3.2.3.3 and 3.2.4.3, Column (20): Amend remark 42 to read as follows:

"Remark 42: Reference shall be made in column (20) to remark 42 for UN No. 1038 ETHYLENE, REFRIGERATED LIQUID, for UN No. 1972 METHANE REFRIGERATED LIQUID or NATURAL GAS, REFRIGERATED LIQUID, with high methane content, for UN No. 1977 NITROGEN, REFRIGERATED, LIQUID and for UN No. 2187, CARBON DIOXIDE, REFRIGERATED LIQUID.".”

Chapter 5.4

5.4.1.1.2 (h) Amend the end to read as follows:

“...remark 3, remark 17, remark 22, remark 39 (b), remark 42 or remark 47, respectively.”

(Reference document: informal document INF.13)

Document ECE/TRANS/WP.15/AC.2/2024/30, Part I, adopted with the following modifications:

Delete the following amendments:

Chapter 1.2

1.2.1 In the definition of “Filling ratio”, replace “a pressure receptacle” by “the means of containment”.

1.2.1 Add a new definition in proper alphabetical order to read as follows:

“Degree of filling means the ratio, expressed in %, of the volume of liquid or solid introduced at 15 °C into the means of containment and the volume of the means of containment ready for use;”

(Reference document: ECE/TRANS/WP.15/AC.1/2023/23/Add.1)

Chapter 1.6

[1.6.1.54 (Reserved)]

(Reference document: ECE/TRANS/WP.15/262, annex)]

Chapter 3.2, Table A

Add the following new entries:

(1)	(2)	(3a)	(3b)	(4)	(5)	(6)	(7a)	(7b)	(8)	(9)	(10)	(11)	(12)	(13)
0514	FIRE SUPPRESSANT DISPERSING DEVICES	1	1.4S		1.4	407	0	E0	*					
3551	SODIUM ION BATTERIES with organic electrolyte	9	M4		9A	188 230 310 348 376 377 400 401 636 677	0	E0						
3552	SODIUM ION BATTERIES CONTAINED IN EQUIPMENT or SODIUM ION BATTERIES PACKED WITH EQUIPMENT, with organic electrolyte	9	M4		9A	188 230 310 348 360 376	0	E0						

						377 400 401 670 677								
3553	DISILANE	2	2F		2.1	632 662	0	E0						
3554	GALLIUM CONTAINED IN MANUFACTURED ARTICLES	8	C11		8	366	5 kg	E0						
3555	TRIFLUOROMETHYLTETRAZOLE-SODIUM SALT IN ACETONE, with not less than 68 % acetone, by mass	3	D	II	3	28	0	E0						
3556	VEHICLE, LITHIUM ION BATTERY POWERED	9	M11		9A	388 666 667 669	0	E0						
3557	VEHICLE, LITHIUM METAL BATTERY POWERED	9	M11		9A	388 666 667 669	0	E0						
3558	VEHICLE, SODIUM ION BATTERY POWERED	9	M11		9A	388 404 666 667 669	0	E0						
3559	FIRE SUPPRESSANT DISPERSING DEVICES	9	M5		9	407	0	E0						
3560	TETRAMETHYLAMMONIUM HYDROXIDE AQUEOUS SOLUTION with not less than 25 % tetramethylammonium hydroxide	6.1	TC1	I	6.1 +8	279 408	0	E5						

(Reference document: ECE/TRANS/WP.15/AC.1/2023/23/Add.1 as amended in ECE/TRANS/WP.15/AC.1/170, annex II)

Chapter 5.4

5.4.0.2 At the end, add the following new sentence: “The information prescribed in this Chapter related to the dangerous goods carried shall be available during carriage in such a way that the goods per vessel and the vessel can be identified in the documentation.”

(Reference document: ECE/TRANS/WP.15/AC.1/170, annex II)

Add the following amendment:

Chapter 7.1

7.1.7.2 The amendment does not apply to the English version.

(Reference document: ECE/TRANS/WP.15/264, annex II)

Additional editorial changes

(Reference document: ECE/TRANS/WP.15/264, annex II)

1.1.3.1 In (ii), at the end, replace “carriage conditions” by “conditions of carriage”.

1.6.1.55 After “3560”, delete the comma.

1.6.1.56 After “3423”, delete the comma.

2.2.1.4 After “DEVICES”, add “: UN No. 0514”.

3.3, SP 388 The modification does not apply to the English version.

5.4.1.1.3.2 After “3291”, delete the comma.

5.4.1.1.3.3 In the third paragraph, after “1993”, delete the comma.

- 5.4.1.1.4 In the first paragraph, replace “the transport document shall be marked” by “the following statement shall be included in the transport document:”. In the second paragraph, replace “sub-paragraphs (b) (i), (ii), (iii), (iv) and (v) of special provision 678” by “special provision 678 (b)”. The third modification does not apply to the English version.

Annex II

[Original: English and French]

Proposed corrections to the Regulations annexed to ADN (Corrections requiring acceptance by Contracting Parties)

1. Chapter 1.1, 1.1.4.7.1

Not applicable to English

2. Chapter 2.3, section 2.3.5, figure 2.3.5

Not applicable to English

3. Chapter 8.1, 8.1.2.3 (s)

Not applicable to English

Annex III

[Original: English and French]

Corrections to ECE/TRANS/325 (ADN 2023 publication) (Corrections not requiring acceptance by Contracting Parties)

- 1. Chapter 3.2, table A, for UN No. 1835, two entries, column “Name and description”**
For TETRAMETHYL AMMONIUM read TETRAMETHYLAMMONIUM
- 2. Chapter 3.2, table B, for “Bromoethane”, column “Class”**
For 6.1 read 3
- 3. Chapter 3.2, table B, for “ETHYL BROMIDE”, column “Class”**
For 6.1 read 3

Annex IV

[Original: English and French]

Proposed amendments to the Regulations annexed to ADN for entry into force on 1 January 2027

Chapter 3.2, Table C

For UN No. 1223 KEROSENE, amend column (2) to read as follows: "KEROSENE (containing less than 0.1 % cumene)".

Add the following new entry:

(1)	(2)	(3a)	(3b)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	3.1.2	2.2	2.2	2.1.1.3	5.2.2 / 3.2.3.1	1.2.1 / 7.2.2.0.1	3.2.3.1 / 1.2.1	3.2.3.1 / 1.2.1	3.2.3.1 / 1.2.1	3.2.3.1 / 1.2.1	7.2.4.21	3.2.3.1	3.2.3.1 / 1.2.1	3.2.3.1 / 1.2.1	1.2.1	1.2.1 / 3.2.3.3	1.2.1 / 3.2.3.3	8.1.5	7.2.5	3.2.3.1
1223	KEROSENE (containing 0.1 % of cumene or more)	3	F1	III	3+N2+ CMR+F	N	2	3			97	≤ 0,83	2	Yes	T3	IIA ⁷⁾	Yes	PP, EP, EX, TOX, A	0	14

(Reference document: ECE/TRANS/WP.15/AC.2/2024/18 as amended)

For UN No. 1307 XYLENES, amend the following 3 entries as follows:

(1)	(2)	(3a)	(3b)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	3.1.2	2.2	2.2	2.1.1.3	5.2.2 / 3.2.3.1	1.2.1 / 7.2.2.0.1	3.2.3.1 / 1.2.1	3.2.3.1 / 1.2.1	3.2.3.1 / 1.2.1	3.2.3.1 / 1.2.1	7.2.4.21	3.2.3.1	3.2.3.1 / 1.2.1	3.2.3.1 / 1.2.1	1.2.1	1.2.1 / 3.2.3.3	1.2.1 / 3.2.3.3	8.1.5	7.2.5	3.2.3.1
1307	XYLENES (mixture containing less than 0.1% cumene, with melting point ≤ 0° C)	3	F1	II	3+N2	N	3	3			97		3	Yes	T1 ¹²⁾	IIA	Yes	PP, EX, A	1	
1307	XYLENES (mixture containing less than 0.1% cumene, with melting point ≤ 0° C)	3	F1	III	3+N2	N	3	3			97		3	Yes	T1 ¹²⁾	IIA	Yes	PP, EX, A	0	
1307	XYLENES (mixture containing less than 0.1% cumene, with 0° C < melting point ≤ 13° C)	3	F1	III	3+N2	N	3	3	2		97		3	Yes	T1 ¹²⁾	IIA	Yes	PP, EX, A	0	6: +17 °C; 17

Add the following new entries:

(1)	(2)	(3a)	(3b)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	3.1.2	2.2	2.2	2.1.1.3	5.2.2 / 3.2.3.1	1.2.1 / 7.2.2.0.1	3.2.3.1 / 1.2.1	3.2.3.1 / 1.2.1	3.2.3.1 / 1.2.1	3.2.3.1 / 1.2.1	7.2.4.21	3.2.3.1	3.2.3.1 / 1.2.1	3.2.3.1 / 1.2.1	1.2.1	1.2.1 / 3.2.3.3	1.2.1 / 3.2.3.3	8.1.5	7.2.5	3.2.3.1
1307	XYLENES (mixture containing 0.1 % of cumene or more, with melting point $\leq 0^\circ \text{C}$)	3	F1	II	3+N2+ CMR	N	2	3			97		2	Yes	T1 ¹²	IIA	Yes	PP, EP, EX, TOX, A	1	
1307	XYLENES (mixture containing 0.1 % of cumene or more, with melting point $\leq 0^\circ \text{C}$)	3	F1	III	3+N2+ CMR	N	2	3			97		2	Yes	T1 ¹²	IIA	Yes	PP, EP, EX, TOX, A	0	
1307	XYLENES (mixture containing 0.1 % of cumene or more, with $0^\circ \text{C} <$ melting point $\leq 13^\circ \text{C}$)	3	F1	III	3+N2+ CMR	N	2	3	2		97		2	Yes	T1 ¹²	IIA	Yes	PP, EP, EX, TOX, A	0	6: +17 °C; 17

(Reference document: ECE/TRANS/WP.15/AC.2/2024/18 as amended)