



Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

Sub-Committee of Experts on the Transport of Dangerous Goods

Sixty-third session

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Item 17 of the provisional agenda

Adoption of the report

Report of the Sub-Committee of Experts on the Transport of Dangerous Goods on its sixty-third session

held in Geneva from 27 November to 6 December 2023

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Annexes

- I. Draft amendments to the twenty-third revised edition of the Recommendations on the Transport of Dangerous Goods, Model Regulations (ST/SG/AC.10/1/Rev.23)¹
- II. Modifications to the seventh version of the Guiding Principles for the Development of the Model Regulations on the Transport of Dangerous Goods [English only]¹
- III. Corrections to the twenty-third revised edition of the Recommendations on the Transport of Dangerous Goods, Model Regulations (ST/SG/AC.10/1/Rev.23)¹
- IV. Draft amendments to the eighth revised of the Manual of Tests and Criteria (ST/SG/AC.10/11/Rev.8)¹

¹ For practical reasons, this annex has been published as an addendum with the symbol ST/SG/AC.10/C.3/126/Add.1.

I. Attendance

1. The Sub-Committee of Experts on the Transport of Dangerous Goods held its sixty-third session from 27 November to 6 December 2023, with Mr. D. Pfund (United States of America) as Chair and Mr. C. Pfauvadel (France) as Vice-Chair.
2. Experts from the following countries took part in the session: Australia, Austria, Belgium, Brazil, Canada, China, Finland, France, Germany, Italy, Japan, Mexico, the Netherlands, Poland, Republic of Korea, Russian Federation, South Africa, Spain, Sweden, Switzerland, United Kingdom and United States of America.
3. Under rule 72 of the rules of procedure of the Economic and Social Council, an observer from Luxembourg also took part.
4. Representatives of the Intergovernmental Organization for International Carriage by Rail (OTIF) also attended.
5. Representatives of the Food and Agriculture Organization (FAO), the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO), the United Nations Institute for Training and Research (UNITAR) and the World Health Organization (WHO) were also present.
6. Representatives of the following non-governmental organizations took part in the discussion on items of concern to those organizations: Australasian Explosives Industry Safety Group (AEISG); Compressed Gas Association (CGA); Council on Safe Transportation of Hazardous Articles (COSTHA); Dangerous Goods Advisory Council (DGAC); Dangerous Goods Trainers Association (DGTA); the European Confederation of Fuel Distributors (ECFD); European Association for Advanced Rechargeable Batteries (RECHARGE); European Chemical Industry Council (Cefic); European Industrial Gases Association (EIGA); Federation of European Aerosol Associations (FEA); Fertilizers Europe; International Air Transport Association (IATA); International Confederation of Drums Manufacturers (ICDM); International Confederation of Plastics Packaging Manufacturers (ICPP); International Dangerous Goods and Containers Association (IDGCA); International Organization for Standardization (ISO); International Union of Railways (UIC); Medical Device Transport Council (MDTC); PRBA – The Rechargeable Battery Association; Responsible Packaging Management Association of Southern Africa (RPMASA); Sporting Arms and Ammunition Manufacturers' Institute (SAAMI); World Coating Council (WCC former IPPIC) and World LPG Association (WLPGA).

II. Opening of the session

Organizational matters

Informal document: INF.8 (Accreditation, registration, working arrangements and provisional timetable)

7. The sixty-third session of the Sub-Committee was held again as an in-person meeting only. In this respect, the officers of the Sub-Committee agreed on the running of the sixty-third session, as indicated in informal document INF.8.

III. Adoption of the agenda (agenda item 1)

Documents: ST/SG/AC.10/C.3/125 (Provisional agenda)
ST/SG/AC.10/C.3/125/Add.1 (List of documents and annotations)

Informal documents: INF.1 and INF.2/Rev.1 (List of documents)
INF.33 (Reception by non-governmental organizations)

8. The Sub-Committee adopted the provisional agenda prepared by the secretariat after amending it to take account of informal documents INF.1 to INF.59.

Status of publications

9. The Sub-Committee was informed that the English, French and Chinese versions of the twenty-third revised edition of the *Model Regulations* and the tenth revised edition of the *Globally Harmonized System of Classification and Labelling of Chemicals (GHS)* had already been published and that the Spanish, Russian and Arabic versions were in the process. Also, the eighth revised edition of the *Manual of Tests and Criteria* was under preparation in all six official UN languages and will be published soon at the website.

10. The Sub-Committee recalled that the seventh version of the *Guiding Principles* had already been published at the website: <https://unece.org/guiding-principles>.

IV. Explosives and related matters (agenda item 2)

A. Review of test series 6

11. As no document had been submitted under this agenda sub-item, no discussion took place on this subject.

B. Improvement of test series 8

12. As no document had been submitted under this agenda sub-item, no discussion took place on this subject.

C. Review of tests in parts I, II and III of the Manual of Tests and Criteria

Informal documents: INF.16 (Germany) and INF.32 (SAAMI)

13. The Sub-Committee welcomed the information on the bursting pressure test method for Koenen steel tubes presented in informal documents INF.16 and INF.32 and agreed on the need to review the provisions in the *Manual of Tests and Criteria*. The Sub-Committee acknowledged the complexity of this subject. All interested stakeholders were invited to contact the representative of SAAMI who will coordinate an inter-sessional discussion on the outcome of the round-Robin tests and come up with a proposal to be submitted to the Explosives Working Group (EWG) for a more detailed consideration at its next meeting. It was noted that the informal documents were also listed on the agenda of the GHS Sub-Committee. This decision should be brought to the attention of the GHS Sub-Committee.

D. “UN” standard detonators

14. As no document had been submitted under this agenda sub-item, no discussion took place on this subject.

E. Energetic samples

Informal document: INF.20 (Cefic)

15. Some experts who took the floor supported in principle the proposal to insert in 2.0.4.3 of the *Model Regulations* new provisions on energetic samples. Other experts were of the opinion that further data and work was needed, including the feedback of the EWG. The Sub-Committee agreed to continue discussion of this subject at its next session. The representative of Cefic invited all experts to send him further comments and offered to submit an official document, taking account of the comments received, for consideration by the EWG at their next meeting.

F. Review of packaging and transport requirements for ammonium nitrate emulsions

16. As no document had been submitted under this agenda sub-item, no discussion took place on this subject.

G. Electrification and alternative fuels and how they will affect transport of explosives

17. As no document had been submitted under this agenda sub-item, no discussion took place on this subject.

H. Miscellaneous

1. Including an acceptable level of risk in classification criteria

Document: ST/SG/AC.10/C.3/2023/47 (SAAMI)

18. The Sub-Committee welcomed the reminder in document ST/SG/AC.10/C.3/2023/47 that the recommendations on the transport of dangerous goods aim to make transport feasible and safe by reducing risks to a minimum without hampering commerce. Some experts who took the floor were of the opinion that the provisions of the Model Regulations and the Guiding Principles were already clear enough. The representative of SAAMI indicated that they may come back with a more specific document at the next session.

2. Introduction of new entries for 1,4-benzoquinone dioxime (QDO)

Document: ST/SG/AC.10/C.3/2023/49 (COSTHA)

Informal document: INF.31 (COSTHA)

19. The representative of COSTHA withdrew informal document INF.31. The Sub-Committee did not support the proposal in document ST/SG/AC.10/C.3/2023/49 to introduce new provisions and UN numbers for QDO. It noted some comments and concerns. The representative of COSTHA offered to revise the proposal and to submit an official document for consideration by the EWG at their next meeting.

3. Net explosive weight

Document: ST/SG/AC.10/C.3/2023/51 (Spain)

20. The Sub-Committee adopted by majority the amendments proposed to the definition of “net explosive mass” (see annex I).

4. Screening procedures for estimating the SADT of 50 kg packages

Informal document: INF.42 (Cefic)

21. The representative of Cefic introduced the document and invited all experts to send him their comments. He announced his intention to work on an updated proposal and to submit it as an official document for their next session.

V. Listing, classification and packing (agenda item 3)

A. Classification of articles

Document: ST/SG/AC.10/C.3/2023/35 (Germany)

22. Opinions differed on the need to amend 2.0.5.5 in the Model Regulations to clarify the classification of articles. While several experts felt that the reference to 2.0.3 is helpful, others believed that the current text is clear enough and an amendment is not needed. The

expert from Germany offered to come back at the next session with an updated proposal, if necessary.

B. Organic peroxides: new formulations to be listed in 2.5.3.2.4 and packing instruction IBC520

Document: ST/SG/AC.10/C.3/2023/36 (Cefic)

23. The Sub-Committee adopted the amendments to 2.5.3.2.4 and 4.1.4.2 proposed in document ST/SG/AC.10/C.3/2023/36 as amended (see annex I).

C. Amendment of the packing group for UN 2862 VANADIUM PENTOXIDE, non-fused form

Document: ST/SG/AC.10/C.3/2023/37 (Germany)

24. The Sub-Committee noted general support on the amendments proposed in paragraph 10 in document ST/SG/AC.10/C.3/2023/37 to amend the entry for UN 2862 and some concerns on the transitional measure proposed in paragraph 11 of the document. The expert from Germany volunteered to further consider the feedback received on the need to clarify the packing group and to come up at the next session with a new official document.

D. Refrigerating machines and heat pumps

Document: ST/SG/AC.10/C.3/2023/38 (Germany)

25. The Sub-Committee noted divided views on the best way forward to cover the transport of heat pumps. While some experts expressed their support on the proposed amendments, other experts preferred the insertion of a simple note on the transport of these articles. It was also suggested to list multiple shipping names under the same UN number or to modify the current one by “machines containing refrigerating gas”. The expert from Germany offered to prepare a new official document for the next session and to take account of the comments received.

E. Proposal to add class 8 as subsidiary hazard to UN 1040, UN 1041 and UN 3300

Document: ST/SG/AC.10/C.3/2023/39 (Germany)

26. The Sub-Committee adopted by majority the amendments in proposals 1 and 2 in document ST/SG/AC.10/C.3/2023/39 as amended (see annexes I and II).

F. Present and future products in the Liquefied Petroleum Gas industry - proposal for a new UN number

Document: ST/SG/AC.10/C.3/2023/32 (World LPG Association)

Informal document: INF.12 (World LPG Association)

27. Opinions differed on the need to insert in the Model Regulations new UN numbers for hydrocarbon and dimethyl ether (DME) blends. While several experts felt that further justification for a new UN number was needed, other experts raised the need to further develop the transport conditions for this product depending on the ratio of DME in the blends.

28. Following an informal discussion, it was agreed that further work was necessary. The expert from World LPG Association offered to work on a transport risk based evidence to justify a new UN number and to come back at the next session with a new proposal taking into account the feedback received.

G. Transport of liquid organic hydrogen carrier (LOHC) - new special provision to UN 3082

Document: ST/SG/AC.10/C.3/2023/40 (Germany)

Informal document: INF.21 (Germany)

29. The Sub-Committee welcomed the information in the documents and noted a number of comments. Some experts indicated that further research data and a more detailed study were necessary. Others were of the opinion that benzyltoluene (BT) is only one possible LOHC and preferred a more generic solution to include other possible carriers. The Sub-Committee agreed that a deeper understanding is necessary. The expert from Germany clarified that BT as such is carried as a dangerous good due to its environmental hazard, independently of the level of chemically bonded hydrogen. If the amount of physically dissolved hydrogen is higher than the threshold given in the proposal, the transport of LOHC should be prohibited. He offered to further discuss the subject intersessionally and to submit a more detailed document, taking into account the comments received, for consideration at the next session.

H. Classification of UN 1727 AMMONIUM HYDROGENDIFLUORIDE, SOLID

Document: ST/SG/AC.10/C.3/2023/42 (Sweden)

Informal document: INF.45 (Sweden)

30. The experts who took the floor supported the proposal to update in the dangerous goods list the entry for UN 1727, but some experts argued that transitional measures were not needed. The Sub-Committee adopted the amendments proposed in paragraph 9 of document ST/SG/AC.10/C.3/2023/42 as amended (see annex I).

I. Hermetically sealed packaging

Informal document: INF.10 (Netherlands)

31. The views on the need for a definition of the term “hermetically sealed” were divided. The Sub-Committee agreed however on the need to clarify the different wordings used in the Model Regulations. Most experts who spoke recommended to go forward with a case by case analysis. One expert suggested referring to the European standard on leak testing.² The expert from the Netherlands volunteered to review the Model Regulations with respect to the terms used and to come back with a more detailed document at the next session.

J. Transport provisions for small quantities of environmentally hazardous paints and printing inks

Informal document: INF.15 (WCC)

32. The Sub-Committee noted the information by WCC on the outcome of the informal working group meeting held during the previous session. It noted still concerns on the options explored during that meeting and hesitations to accept such exemptions for paints and printing inks and not for other substances. The representative of WCC invited all experts to send him their comments and suggestions on possible amendments. He offered to prepare an official document for the next session.

² EN 1779 "Leak testing: Criteria for method and technique selection", Part 6.

K. Present and future products in the LPG industry – Addition of a new special provision to UN numbers UN 1075 and UN 1965

Informal documents: INF.18, INF.19 and INF.35 (World LPG Association)

33. The Sub-Committee welcomed the documents and noted divided opinions on the best way forward either to insert new special provisions to UN numbers UN 1075 and UN 1965 or to insert a new UN number for different blends of hydrocarbon and DME. Most experts who took the floor felt that the second sentence of the new special provision was not needed. The Sub-Committee recommended to clarify the transport conditions for blends higher than 12 percent. It was agreed to resume discussion at the next session on the basis of a new document by the World LPG Association.

L. Magnetic Resonance Imaging (MRI) scanners

Informal document: INF.25 (Netherlands)

34. The Sub-Committee agreed on the need to facilitate the transport of such equipment used in the health sector. Some experts that spoke endorsed the proposed option 2 and preferred to adapt in the new special provision the quantity of 1.5 kg of gas to 12 kg which is used for refrigerating machines. Others felt that the discussion was similar to that on heat pumps and suggested working on a more generic entry on “machines containing refrigerating gas” (see item 25 above). It was noted that “MRI” should also be added to the alphabetic index. The experts from the Netherlands and Germany volunteered to join their efforts accordingly and to come back with a new proposal for the next session.

M. New special provision and special packing provision of UN 2029

Informal document: INF.27 (China)

35. The Sub-Committee noted no objection and adopted the amendments proposed in informal document INF.27 (see annex I).

N. Wearable airbag system

Informal document: INF.34 (Italy)

36. The Sub-Committee welcomed the information by Italy and agreed on the need to include such lifesaving systems within the existing provisions of the Model Regulations. It was noted that the classification of dangerous goods should be hazard-based and not be based on their use. The Chair invited all experts to send their comments to the expert from Italy, who offered to prepare an official document for the next session and to take account of the feedback received.

O. Informal correspondence group on polymerizing substances and self-accelerating polymerization temperature (SAPT)

Informal document: INF.41 (Cefic)

37. The Sub-Committee noted the outcome of the informal correspondence group and encouraged the group to continue their work towards a conclusion. The representative of Cefic invited all experts to send him their comments and contributions for further consideration by the group at their next exchange in Spring 2024. He announced his intention to prepare a more detailed official document for the next session, also for consideration by the EWG.

P. Correction in 2.5.3.2.4 to the organic peroxide list

Informal document: INF.46 (Cefic)

38. The Sub-Committee adopted the correction proposed in informal document INF.46 (see annex III).

Q. Adequate UN entry for 2,4-Dichlorophenol with a possible solution for all chlorophenols

Document: ST/SG/AC.10/C.3/2023/33 (Germany)

Informal document: INF.55 (Germany)

39. On the options proposed in document ST/SG/AC.10/C.3/2023/33, there was no clear preference and some questions were raised. Some experts were of the opinion that the reference to special provision 274 may be omitted. Following the discussion, the Sub-Committee adopted the proposal in informal document INF.55 as amended and decided to still keep in square brackets the references to special provision 274 in the three entries for CHLOROPHENOLS, TOXIC subject to a final decision at a further session (see annex I).

R. Infectious substance transport

Document: ST/SG/AC.10/C.3/2023/48 (COSTHA, DGTA, FAO)

Informal documents: INF.23 and INF.56 (COSTHA, DGTA, FAO)
INF.30 (WHO)

40. Following an informal session led by COSTHA on document ST/SG/AC.10/C.3/2023/48 and informal documents INF.23 and INF.30, the Sub-Committee noted in informal document INF.56 the outcome of that discussions. The group of experts was encouraged to continue their work through an intersessional correspondence group and invited to report back at the next session of the Sub-Committee on the progress made. Delegates interested in participating in the working group are encouraged to send an email to the representative of COSTHA.

S. Environmentally hazardous living organisms

41. Recalling the information on the transport of environmentally hazardous living organisms presented in informal document INF.46 at the fifty-fifth session, a member of the secretariat reported on their recent consultations with the secretariat of the Convention of Biological Diversity (CBD). CBD had confirmed that after twelve meetings of their inter-agency liaison group on invasive alien species and a series of internal consultations a decision had been made to submit a more extensive proposal to the Sub-Committee for its next session in June 2024.

42. Delegates were invited to consult or share, if necessary, the upcoming document with their national homologues in charge of agriculture or carriage of animals to ensure an initial feedback already during the June session.

T. Comprehensive approach following reclassification of existing entries in the dangerous goods list

Informal documents: INF.28 and INF.57 (Canada)

43. The Sub-Committee agreed to the proposal from Canada to lead an informal working group in accordance with the scope, terms of reference and work programme detailed in informal document INF.57. Experts interested to participate in this work were invited to contact the expert from Canada at the address indicated in paragraph 4 of the informal document.

VI. Electric storage systems (agenda item 4)

A. Testing of lithium batteries

Informal document: INF.48 (RECHARGE)

44. Most experts who took the floor supported in principle the purpose of the proposal. Some experts questioned the succession of tests T.1 to T.4 and test T.5, while others felt that the proposed text for the new paragraph at the end of 38.3.3 (b) needed to be reviewed. The representative of RECHARGE announced his intention to further work on a revised proposal and to come up with an official document at the next session.

B. Hazard-based system for classification of lithium batteries

45. As no document had been submitted under this agenda item, no discussion took place on this subject.

C. Transport provisions

1. Transport provisions for hybrid batteries with both lithium-ion and sodium-ion cells

Document: ST/SG/AC.10/C.3/2023/53 (China)

46. The Sub-Committee adopted the amendments in proposals 1 to 4 in document ST/SG/AC.10/C.3/2023/53 as amended (see annex I).

2. Transport of articles containing lithium batteries and other dangerous goods

Document: ST/SG/AC.10/C.3/2023/54 (China)

47. Some experts were of the opinion that cells or batteries shall be removed and transported separately, if possible. Others believed that further work on the exemptions for limited quantities and on restrictions in the Model Regulations was needed in the case a removal is not possible. The Sub-Committee agreed on the need to clarify the current provisions (i.e. align special provision 310 with 2.0.5.6). The expert from China invited interested experts to send him further comments. He volunteered to work on a proposal and to submit for the next session a new document taking account of the comments received.

3. Issues regarding the interpretation of the scope of application of special provision 188

Informal document: INF.26 (Germany)

48. The Sub-Committee noted divided positions on the questions in informal document INF.26. While some experts considered a switch sufficient for a disconnection of batteries and in line with the definition of a battery in the Manual of Tests and Criteria, others believed that a switch might be a risk as it could be switched on by accident. The Sub-Committee acknowledged that the current provisions in the Model Regulations were not clear and need to be reviewed.

D. Damaged or defective lithium batteries

49. As no document had been submitted under this agenda item, no discussion took place on this subject.

E. Sodium-ion batteries

1. Proposed amendments to special provision 400 and classification criteria for lithium and sodium ion batteries

Document: ST/SG/AC.10/C.3/2023/56 (ICAO)

50. The Sub-Committee noted that the amendments proposed by the ICAO Dangerous Goods Panel in paragraph 5 were no longer relevant and those in paragraph 6 were covered by informal document INF.13 under agenda item 7.

2. Inclusion of reference to special provision SP400 in 5.2.1.9.1

Document: ST/SG/AC.10/C.3/2023/43 (Spain)

51. The Sub-Committee adopted the amendments proposed in document ST/SG/AC.10/C.3/2023/43 (see annex I).

3. Transport of sodium ion batteries with organic electrolyte installed in cargo transport unit

Informal document: INF.14 (China)

52. Some experts supported in principle the insertion in the Model Regulations of a new UN number and a new special provision as proposed in informal document INF.14, while other experts expressed their preference to go forward instead with a more generic shipping name for UN 3536 such as “power storage unit”. The expert from China offered to further work on this subject and to submit for the next session an official document taking into account the feedback received.

F. Miscellaneous

1. Classification provisions for lithium batteries and sodium ion batteries

Document: ST/SG/AC.10/C.3/2023/23 (IATA)

53. The Sub-Committee adopted the amendments proposed in document ST/SG/AC.10/C.3/2023/23 as amended (see annex I).

2. Exception for equipment containing both lithium batteries and lithium button cells

Document: ST/SG/AC.10/C.3/2023/24 (IATA)

54. The experts who spoke supported in principle the proposed amendments, but preferred to also amend special provision 188 (f) accordingly. Some delegations wondered whether it would be necessary to define size limits for button cells whereas other delegations considered that the limits defined for small cells in the Manual of Test and Criteria could be sufficient. It was agreed to resume the discussion on this subject at the next session on the basis of a new document by IATA.

3. Proposal of new special provision for all-solid-state lithium ion cells and batteries (UN 3480 and UN 3481) that do not cause thermal runaway

Informal document: INF.24 (Japan)

55. The Sub-Committee noted a number of comments on informal document INF.24 and acknowledged that further work was necessary. The informal working group was invited to resume discussion of this subject when considering a new classification method based on hazards. The expert from Japan volunteered to submit a more detailed document to the next session taking account of the feedback by the informal working group.

4. Outcome of the twenty-ninth session of the Dangerous Goods Panel

Informal document: INF.43 (ICAO)

56. Referring to the discussion under item 7 of the agenda (para. 12 of informal document INF.43) on the inconsistencies in the French version of the Model Regulations regarding the use of the terms “cells” and “batteries”, the Sub-Committee agreed on the need to review the provisions.

57. On the recommendation of the ICAO Dangerous Goods Panel in paragraph 7 of the document, the Sub-Committee welcomed the offer by ICAO to come back at the next session with an official document on the proposed options.

5. Reuse, repair and re-purposing lithium ion cells and batteries and implications on safety and UN 38.3 testing requirements

Informal document: INF.51 (RECHARGE, PRBA)

58. The Sub-Committee noted divided positions and concerns on the amendments proposed in paragraph 5 of informal document INF.51. While some experts felt to be cautious when referring to a process to be authorized by the original manufacturer, others preferred not to refer to the use of batteries and to be consistent with the corresponding European Union legislation. The Sub-Committee acknowledged that further work was necessary and welcomed the initiative of RECHARGE and PRBA to submit a new proposal on a revised process focusing on safety which could serve as a possible guideline for future work.

6. Amendment to special provision 310 to account for sodium ion batteries

Informal document: INF.58 (Secretariat)

59. The Sub-Committee noted no objection and adopted the amendments proposed in informal document INF.58 (see annex I).

VII. Transport of gases (agenda item 5)

A. Global recognition of UN and non-UN pressure receptacles

60. As no document had been submitted under this agenda sub-item, no discussion took place on this subject.

B. Limited quantities for division 2.2

61. As no document had been submitted under this agenda sub-item, no discussion took place on this subject.

C. Miscellaneous

1. Updated ISO standards in Class 2

Documents: ST/SG/AC.10/C.3/2023/21 and ST/SG/AC.10/C.3/2023/46 (ISO)

62. On behalf of ISO, the representative of CGA presented the proposed amendments. The Sub-Committee adopted the amendments in document ST/SG/AC.10/C.3/2023/21 as proposed and those in document ST/SG/AC.10/C.3/2023/46 with an editorial amendment to 6.7.5.2.4 (see annex I).

2. Consequential amendments in the context of the pV-product of salvage pressure receptacles

Document: ST/SG/AC.10/C.3/2023/34 (Germany)

Informal documents: INF.5 (Belgium) and INF.52 (Germany)

63. The Sub-Committee noted several comments on proposal 4 in document ST/SG/AC.10/C.3/2023/34 on the new definition of “pressure volume product” and also the additional consequential amendment addressed in informal document INF.5. Following the discussion, the Sub-Committee adopted the amendments proposed in informal document INF.52 (see annex I).

VIII. Miscellaneous proposals for amendments to the Model Regulations on the Transport of Dangerous Goods (agenda item 6)

A. Marking and labelling

Document: ST/SG/AC.10/C.3/2023/52 (China)

Informal document: INF.53 (China)

64. The Sub-Committee adopted the amendments proposed in informal document INF.53 to the location of lithium battery or sodium ion battery mark (see annex I).

B. Packagings, including the use of recycled plastics material

1. Revision of standard ISO 535:2014

Document: ST/SG/AC.10/C.3/2023/31 (Spain)

65. The Sub-Committee adopted the amendments proposed in paragraph 6 of document ST/SG/AC.10/C.3/2023/31 (see annex I).

2. Performance and frequency of tests

Informal document: INF.6 (Germany)

66. Most delegations who spoke were of the opinion that the current text of the first sentence in 6.1.5.1.3 allows the competent authorities to decide which tests (i.e. all, partially or even none) should be repeated on production samples and also at what intervals. The Sub-Committee agreed to resume consideration of this subject at its next session on the basis of an official document. The expert from Germany invited all experts to send him their written comments.

C. Portable tanks

1. New sub-chapter 6.9.3 “Requirements for design, construction, inspection and testing of fibre reinforced plastic (FRP) service equipment for portable tanks” and new section 42 “Fire resistance test of FRP service equipment for portable tanks” for the Manual of Test and Criteria

Document: ST/SG/AC.10/C.3/2023/45 (Russian Federation on behalf of the Working Group)

Informal documents: INF.3 and INF.49 (Russian Federation on behalf of the Working Group)

67. The Sub-Committee welcomed the good work in informal documents INF.49 of the informal working group on FRP service equipment for portable tanks made during their hybrid meeting held on 28 November 2023. It adopted the amendments proposed in informal document INF.49 and decided to keep them in square brackets (see annexes I and IV).

2. Clarification of the provisions on the holding time for the transport of portable tanks with refrigerated liquefied gases, especially when these are empty, not cleaned

Informal document: INF.11 (UIC)

68. While some experts expressed their support on the purpose of the document, others believed the proposed wording needs to be reviewed. The expert from UIC volunteered to further work on an updated proposal taking into account the comments received and to submit it as an official document for the next session.

3. Proposal for the new sub-chapter 6.9.4 “Provisions for the design, construction, inspection and testing of portable tanks with shells made of fibre-reinforced plastics (FRP) materials intended for the transportation of substances of class 2 (unrefrigerated liquefied gases)”

Informal document: INF.37 (Russian Federation)

69. Some delegations favoured going forward with the development of new provisions on FRP portable tanks for the carriage of substances of class 2, but most delegations who took the floor consider it premature and preferred to first gain more experience on the use of the current FRP tanks before discussing and agreeing on the goals of and timeline for that work. The expert from the Russian Federation invited all delegations to send him comments and possible data on their experience in this field, if any. He announced his intention to submit an official document for the next session, taking into account the comments received.

4. New transitional measures for portable tanks in 6.7

Informal document: INF.54 (EIGA)

70. The Sub-Committee adopted the transitional measure proposed in informal document INF.54 as amended (see annex I).

5. Modification of the definitions of "FRP tank" and "FRP shell" in 6.9.2.1 of the Model Regulations

Document: ST/SG/AC.10/C.3/2023/41 (Poland)

Informal document: INF.47 (Poland)

71. The Sub-Committee adopted the amendments in proposals 1 to 7 and 9 to 12 in document ST/SG/AC.10/C.3/2023/41, as amended (see annex I). On proposal 8 in the document, the expert from Poland offered to further work on it and to come back at the next session with a new official document.

D. Other miscellaneous proposals

1. Mass and weight

Document: ST/SG/AC.10/C.3/2023/44 (Spain)

72. The Sub-Committee adopted the amendments proposed in section III of document ST/SG/AC.10/C.3/2023/44 (see annex IV).

2. Stacking test

Document: ST/SG/AC.10/C.3/2023/50 (Spain)

73. The Sub-Committee adopted the amendments proposed in paragraph 9 as amended (see annex I).

3. Amendment to 7.1.1.9 of the Model Regulations - packages designed for stacking

Informal document: INF.29 (Republic of Korea)

74. The Sub-Committee welcomed the purpose of the document and agreed on the need to clarify the stacking direction of packages. It was noted that dangerous goods safety training and capacity building could also be a possible solution. The Sub-Committee agreed to resume discussion on this subject at its next session on the basis of an official document. The expert from Korea invited interested experts to send him their feedback.

4. Correction to the French term for “load compartment”

Informal document: INF.38 (Switzerland)

75. The Sub-Committee adopted the amendments to the French version of the Model Regulations as proposed in paragraphs 5 to 8 of informal document INF.38 (see annex I).

5. Supplementary information to informal document INF.38 of the sixty-second session

Informal document: INF.44 (IDGCA)

76. On behalf of IDGCA, the representative of RPMASA presented informal document INF.44. The Sub-Committee noted the information and some questions to be conveyed to IDGCA.

IX. Global harmonization of transport of dangerous goods regulations with the Model Regulations (agenda item 7)

A. Follow up to the amendments proposed by the Ad hoc Working Group on the Harmonization of RID/ADR/ADN with the United Nations Recommendations on the Transport of Dangerous Goods

Document: ST/SG/AC.10/C.3/2023/57 (Secretariat)

77. The Sub-Committee adopted the proposed amendments to the Model Regulations and noted the consequential amendment to informal document INF.53 adopted under item 6 (a) (see para. 64 above).

B. Amendments to the Model Regulations proposed by the Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods

Informal document: INF.13 (Secretariat)

78. The Sub-Committee noted no objection to adopting the amendments proposed in informal document INF.13 (see annex I).

C. Outcome of the thirty-ninth session of the Editorial and Technical Group (on the IMDG Code)

Informal document: INF.40 (IMO)

79. The Sub-Committee noted no objection to also adopting the first two amendments proposed in informal document INF.40 as amended (see annex I). IMO announced that they would come back with an official proposal on the third amendment.

D. Information on recommendations for amendment to the Technical Instructions for the Safe Transport of Dangerous Goods by Air made by the ICAO Dangerous Goods Panel

Informal document: INF.43 (ICAO)

80. The Sub-Committee welcomed the outcome of the ICAO Dangerous Goods Panel (DGP). The question on the translation for sodium ion batteries in the dangerous goods list was referred to the discussion under item 4 (see para. 56 above). On the inconsistencies identified by ICAO translators, the Sub-Committee adopted the correction to the note under 6.2.2.11 as proposed in paragraph 13 of informal document INF.43 (see annex III).

E. Evolution of transport systems and the Model Regulations

Informal document: INF.36 (United States of America)

81. The expert from the United States of America indicated that during the preliminary discussions within the informal working group, the robustness of the current regulatory system had been acknowledged while recognizing at the same time the need to continue to

evolve to embrace and accommodate new technologies and changes in shipping practices. He informed the Sub-Committee that discussions on the questions raised in paragraph 5 of informal document INF.36 will continue intersessionally and reiterated its invitation to all interested experts who had not yet done so, to provide comments as appropriate.

X. Cooperation with the International Atomic Energy Agency (agenda item 8)

82. The Sub-Committee noted the endorsement by IAEA at the forty-seventh meeting of the Transport Safety Standards Committee (TRANSSC) in November 2023 to add in the regulations a clarifying note to the definition of “specific activity of a radionuclide”. It also noted that IAEA expected to finalize by the end of 2024 draft Revision 2 to the Safety Standards Series No. SSR-6, Regulations for the Safe Transport of Radioactive Material and to submit subsequently a proposal to align the Model Regulations accordingly.

XI. Guiding principles for the Model Regulations (agenda item 9)

83. As no document had been submitted under this agenda item, no discussion took place on this subject.

XII. Issues relating to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) (agenda item 10)

A. Testing of oxidizing substances

84. As no document had been submitted under this agenda item, no discussion took place on this subject.

B. Simultaneous classification in physical hazards and precedence of hazards

1. Aerosols – Alignment of special provision 63 with special provision 362

Informal document: INF.4 (FEA)

85. Some experts supported the proposal to amend special provision 63. Concerning the proposed sub-item (h), some experts considered that similar provisions already existed in 2.2.2 and 2.2.4 of the Model Regulations and, therefore, preferred not to repeat them. The Sub-Committee invited FEA to consider the comments received and to come back at the next session with an official document.

2. Informal working group on combinations of physical hazards: Notes for aerosols and chemicals under pressure

Informal documents: INF.7 and INF.17 (Germany on behalf of the informal working group)

86. The Sub-Committee expressed a preference for option 2 for aerosols in paragraph 18 of informal document INF.7, as amended by informal document INF.17, and also option 2 for chemicals under pressure in paragraph 13 in informal document INF.7. This preference should be brought to the attention of the GHS Sub-Committee.

87. The expert from Germany informed the Sub-Committee that the working group would continue its work and would submit an official document to the GHS Sub-Committee.

C. Miscellaneous

Document: ST/SG/AC.10/C.3/2023/55 (China)

Informal document: INF.39 (United States of America)

88. The Sub-Committee noted some comments and suggestions to amend the proposal in paragraph 4 of document ST/SG/AC.10/C.3/2023/55 to add in annex 4 hazard communication for substances or mixtures evolving flammable vapours. The expert from China announced she may prepare a revised proposal taking account of the comments received and to submit it as an informal document to the GHS Sub-Committee.

89. The Sub-Committee welcomed the outline proposed in informal document INF.39 for a new annex 11 of the GHS to cover substances and mixtures that emit flammable vapours, subject to endorsement by the GHS Sub-Committee.

XIII. Unified interpretations of the Model Regulations (agenda item 11)

Informal document: INF.9 (Netherlands)

90. The Sub-Committee confirmed the interpretation in informal document INF.9 on modified intermediate bulk containers (IBCs). It was noted that IBCs when used for the transport of dangerous goods must be in compliance with the design type approval.

XIV. Implementation of the Model Regulations (agenda item 12)

Informal document: INF.50 (RPMASA)

91. The Sub-Committee noted the status report of RPMASA on the South Africa Dangerous Goods supply chain task group and their progress made for revising the national standards and regulations to address multi-modal dangerous goods training and awareness raising activities.

XV. Dangerous goods safety training and capacity building (agenda item 13)

92. As no document had been submitted under this agenda item, no discussion took place on this subject.

XVI. United Nations 2030 Agenda for Sustainable Development (agenda item 14)

Informal document: INF.59 (Secretariat)

93. The Sub-Committee noted a first evaluation of the contributions by its experts to the interlinkage of their work to the United Nations Sustainable Development Goals (SDGs). It was noted that more detailed information on SDGs is available on the website.³

³ https://unece.org/transport/dangerous-goods/ecosoc-bodies-dealing-chemicals-safety#accordion_8.

XVII. Opportunities to enhance operational efficiency and inclusiveness (agenda item 15)

Informal document: INF.22 (Secretariat)

94. The Sub-Committee welcomed the information provided by the secretariat and acknowledged the current absence of a mandate to formalize hybrid or online meetings at UN level. Some delegations reiterated that provision of hybrid or online meetings would contribute significantly to reduce the carbon footprint associated with travel and would facilitate participation of delegations that cannot attend due to budgetary constraints. Other delegations highlighted the advantages of fully in-person meetings. It was pointed out that delegates that sought changes needed to contact their representatives at the General Assembly to obtain a mandate allowing hybrid sessions. The secretariat informed the Sub-Committee that informal document INF.22 did not apply to the work of informal working groups. The secretariat committed to keeping the Sub-Committee informed about any further developments on this topic.

XVIII. Other business (agenda item 16)

A. Tribute to Mr. Claude Pfauvadel (France) and election of a vice-chair

95. Noting that Mr. C. Pfauvadel would retire soon and would no longer attend the sessions, the Sub-Committee expressed its appreciation for his outstanding contribution to the work of the Sub-Committee over the past 28 years, as a member of the French delegation since 1995, as Vice-Chair of the Sub-Committee since 2007, as Chair from December 2009 to December 2010 and again as vice-chair since then. His leadership, knowledge and expertise as well as his involvement in the work of informal working groups and in other intergovernmental bodies dealing with transport of dangerous goods was particularly acknowledged.

96. On a proposal from Spain, Mr. R. Dardenne (Belgium) was elected vice-chair for the remainder of the biennium.

B. Tribute to Ms. Katherine Rooney (ICAO)

97. The Sub-Committee was informed that Ms. K. Rooney will take her retirement soon and would no longer attend the sessions. The Chair thanked her for his substantive contributions over many years to the work of the Sub-Committee. The Sub-Committee offered Ms. Rooney its best wishes for a long and happy retirement and honoured her commitment with a long applause.

C. Any other business

Meeting dates for the sixty-fourth session

98. The Sub-Committee noted the meeting dates and document submission deadlines for its sixty-fourth session as follows:

- Meeting dates: from 24 June to 3 July 2024;
- Deadline for submission of official documents: 29 March 2024.

XIX. Adoption of the report (agenda item 17)

99. In accordance with established practice, the Sub-Committee adopted the report on its sixty-third session and its annexes on the basis of a draft prepared by the secretariat.