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**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

**REPORT OF THE SUB-COMMITTEE OF EXPERTS ON THE TRANSPORT OF  
DANGEROUS GOODS ON ITS THIRTY-FIFTH SESSION**  
(Geneva, 22-26 June 2009)

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## **I. ATTENDANCE**

1. The Sub-Committee of Experts on the Transport of Dangerous Goods held its thirty-fifth session from 22 to 26 June 2009, with Mr. R. Richard (United States of America) as Chairman and Mr. C. Pfauvadel (France) as Vice-Chairman.
2. Experts from the following countries took part in the session: Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Finland, France, Germany, Italy, Japan, Kenya, Netherlands, Norway, Poland, Russian Federation, South Africa, Spain, Sweden, United Kingdom and United States of America.
3. Under rule 72 of the rules of procedure of the Economic and Social Council, observers from the following countries also took part: Ireland, Romania, Slovakia and Switzerland.
4. The European Commission and the Intergovernmental Organization for International Carriage by Rail (OTIF) were also represented.
5. Representatives of the International Atomic Energy Agency (IAEA) and the International Maritime Organization (IMO) were also present.
6. Representatives of the following non-governmental organizations took part in the discussion of items of concern to their organizations: Council on Safe Transportation of Hazardous Articles (COSTHA); European Cosmetic, Toiletry and Perfumery Association (COLIPA); European Industrial Gases Association (EIGA); European Metal Packaging (EMPAC); Federation of European Aerosol Associations (FEA); International Air Transport Association (IATA); International Association for Soaps, Detergents and Maintenance Products (AISE); International Electrotechnical Commission (IEC); Compressed Gas Association (CGA); Dangerous Goods Advisory Council (DGAC); European Association of Automobile Suppliers (CLEPA); International Confederation of Drums Manufacturers (ICDM); International Council of Chemical Associations (ICCA); International Confederation of Intermediate Bulk Container Associations (ICIBCA); International Federation of Airline Pilots' Associations (IFALPA); International Association for the Promotion and Management of Portable Rechargeable Batteries through their Life Cycle (RECHARGE); International Confederation of Container Reconditioners (ICCR); International Confederation of Plastics Packaging Manufacturers (ICPP); International Dangerous Goods and Containers Association (IDGCA); International Federation of Pharmaceutical Manufacturers and Associations (IFPMA); International Vessel Operators Hazardous Materials Association (VOHMA); KiloFarad International (kFI); International Organization for Standardization (ISO); Portable Rechargeable Battery Association (PRBA); Responsible Packaging Management Association of Southern Africa (RPMASA) and Sporting Arms and Ammunition Manufacturers' Institute (SAAMI).
7. The Sub-Committee noted that, following Economic and Social Council decision 2009/201C of 18 May 2009, Kenya, which had taken part in its work for several years as an observer country, had become a member of the Sub-Committee.

## **II. ADOPTION OF THE AGENDA** (agenda item 1)

Documents: ST/SG/AC.10/C.3/69 (Provisional agenda)  
ST/SG/AC.10/C.3/69/Add.1 (List of documents)

Informal documents: INF.1, INF.2 (List of documents) and INF.29 (Provisional timetable)

8. The Sub-Committee adopted the provisional agenda prepared by the secretariat after amending it to take account of informal documents (INF.1-INF.63).

## **III. EXPLOSIVES AND RELATED MATTERS** (agenda item 2)

9. After preliminary discussion in plenary session, most issues concerning explosives and related matters were referred to a Working Group on Explosives which met from 22 to 24 June 2009 under the chairmanship of Mr. E. de Jong (Netherlands).

### **A. Report of the Working Group on Explosives**

Informal document: INF.57

10. After consideration of the report of the Working Group on Explosives, the Sub-Committee decided as follows:

#### **1. Assignment of fireworks to hazard divisions – shot tube (sub-section 2.1.3.5)**

Document: ST/SG/AC.10/C.3/2009/12 (Spain)

Informal document: INF.32 (Sweden)

11. The Sub-Committee will wait for a proposal by the expert from Sweden regarding the definition of shot tubes and mines before deciding on the issues raised in the documents submitted by Spain and Sweden.

#### **2. Criteria for excluding articles from Class 1**

Document: ST/SG/AC.10/C.3/2009/22 (United States of America)

Informal document: INF.30 (United Kingdom)

12. The Sub-Committee noted that the expert from the United States of America will prepare a new proposal for the next session which will take account of the comments made by the Working Group (see paras 4-6 of the report of the Working Group).

#### **3. HSL Flash composition test**

Informal document: INF.31 (Secretariat)

13. The Sub-Committee noted that there were mistakes in the figures adopted by the Committee at its fourth session (12 December 2008) for the new HSL Flash composition test (Appendix 7) of the Manual of Tests and Criteria. The secretariat was invited to issue a corrigendum to document ST/SG/AC.10/36/Add.2 and to include the new figures in the fifth revised edition of the Manual of Tests and Criteria (see ST/SG/AC.10/36/Add.2/Corr.1).

#### **4. Desensitized explosives**

Document: ST/SG/AC.10/C.3/2009/11 (report of the Working Group on Desensitized Explosives, 8-9 December 2008)

14. All experts from the Sub-Committee were invited to submit data on the various entries concerned, as explained in paragraph 8 of informal document INF.57, through correspondence with the Working Group members.

#### **5. Definition of net explosive mass**

Informal document: INF.16 (IATA)  
INF.61 (Drafting Group)

15. It was agreed to include a definition of net explosive mass in section 1.2.1 of the Model Regulations (see annex).

#### **6. Interpretation of packing instructions P902 and LP902**

Informal document: INF.17 (Sweden)

16. The amendments to P902 and LP902 proposed by the Working Group were adopted (see annex).

#### **7. UN Test Series 6**

Informal document: INF.39 Institute of Makers of Explosives (IME)

17. The Sub-Committee considered that the figures in paragraph 16.7.1.4 (b) adopted at the last session should be corrected in accordance with paragraph 11 (c) of the report of the Working Group and invited the secretariat to issue a corrigendum to document ST/SG/AC.10/36/Add.2 and to reflect this correction in the fifth revised edition of the Manual of Tests and Criteria (see ST/SG/AC.10/36/Add.2/Corr.1).

18. The Sub-Committee endorsed the other views of the Working Group reflected in paragraph 11 (a), (b), (d) and (e) of its report.

#### **8. Test Series 7**

Informal document: INF.41 and INF.42 (United Kingdom)

19. The Sub-Committee noted the views of the Working Group expressed in para. 12 of its report and noted that an intersessional meeting of the informal working group on test series 7 could be organized in the near future.

#### **9. Classification of nitroglycerin solution in alcohol**

Document: ST/SG/AC.10/C.3/2009/24 (IATA)

20. Some experts did not share the view of the Working Group that there was no need to assign a special provision to UN No. 0144 referring to packing instruction P300. The question was put to the vote and the majority view was that a special provision similar to special provision 500 of RID/ADR/ADN should be assigned to UN No. 0144. IATA was invited to prepare a proposal for the next session.

21. The Sub-Committee agreed that there was no need to convene a session of the Working Group on Explosives at the next session.

#### **B. Information required on the dangerous goods transport document when transporting fireworks**

Document: ST/SG/AC.10/C.3/2009/10 (United Kingdom)

Informal document: INF.53/Rev.1 (United Kingdom)

22. The Sub-Committee agreed to add a new paragraph 5.4.1.5.10 requiring the indication of a classification reference in the transport document for fireworks of UN Nos. 0333, 0334, 0335, 0336 and 0337.

#### **IV. LISTING, CLASSIFICATION AND PACKING (agenda item 3)**

##### **A. Proper shipping name of UN numbers 3276, 3278, 3282, 3439, 3464 and 3467**

Document: ST/SG/AC.10/C.3/2009/4 (OTIF and Germany)

23. The proposal to alter the order of the adjectives in the shipping names was adopted (see annex).

##### **B. Packing instruction P010 - Provision for the use of pressure receptacles**

Document: ST/SG/AC.10/C.3/2009/25 (CEFIC)

Informal document: INF.22 (CEFIC)

24. The proposal to authorize steel pressure receptacles for chlorosilanes in packing instruction P010 was adopted with some editorial changes (see annex).

### **C. Pressurized adhesives in gas cylinders**

Informal document: INF.18 (ICCA)

25. The Sub-Committee agreed that the issue of chemicals such as adhesives or paints packed in pressure receptacles for use with spraying equipment should be addressed in the Model Regulations and invited ICCA to submit an official proposal for the next session.

### **D. Substances packaged under pressure**

Informal document: INF.56 (EIGA)

26. The Sub-Committee invited EIGA to submit an official proposal at the next session to address the issue of liquids and solids packed in pressure receptacles under a head pressure of gases such as nitrogen or helium.

## **V. ELECTRIC STORAGE SYSTEMS (agenda item 4)**

### **A. UN 3028, Batteries, dry, containing potassium hydroxide, solid**

Document: ST/SG/AC.10/C.3/2009/3 (Secretariat)

Informal documents: INF.40 (PRBA, RECHARGE, EPBA)  
INF.55 (Belgium France, Germany, IMO, VOHMA)

27. The Sub-Committee noted that the wording of Special Provision 304 in chapter 3.3 gave rise to many misunderstandings relating to the precise scope of UN 3028, given that provision 304 mentioned types of battery that did not correspond to the original definition. It decided to amend Special Provision 304 as proposed by the secretariat so as to reflect the original definition, which already appeared in the International Maritime Dangerous Goods (IMDG) Code and in the International Civil Association Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods, i.e. that the entry applied only to the transport of non-activated batteries containing dry potassium hydroxide which would be activated prior to use by the addition of water to form a liquid electrolyte (see annex).

28. Several experts considered that other dry batteries containing dry potassium hydroxide, meaning most common batteries found in retail outlets, posed no particular danger during transport either when conditioned for distribution or when used and collected for recycling or disposal. Some thought that if the transport of such batteries had to be regulated it would be advisable to establish a separate heading and appropriate shipping conditions.

29. There was no support for the proposal (INF.40) to add a new paragraph (c) to 1.1.1.2 exempting such batteries. Some experts pointed out that the proposed paragraph set out conditions in which batteries would be exempted, but gave no indication as to how batteries which did not meet those conditions should be transported.



30. It was pointed out that Special Provision 304 had been amended at the previous session to take account of the need to keep nickel-metal hydride batteries away from sources of heat during maritime transport. Further thought should be given to the problem and to ways other than Special Provision 304 of indicating what rules applied.

31. In order to facilitate IMO's work on this subject, the Sub-Committee agreed to include a new UN number for nickel-metal hydride batteries, with special provision 117 in square brackets indicating that this entry may be regulated for maritime transport only. The Sub-Committee acknowledged that further consideration was necessary to determine the implication for air transport. It expressed the wish that the provisions to be developed by IMO would have a minimum impact on multimodal transport, in the spirit of the text which was added to special provision 304 in the 16<sup>th</sup> revised edition of the United Nations Recommendations on the Transport of Dangerous Goods Model Regulations, and would take account of the size of such batteries, of the provisions relevant to them and of the quantity within a cargo transport unit.

## **B. Lithium cells and batteries**

### **1. Watt-hour marking on lithium-ion batteries**

Informal document: INF.6 (DGAC)

32. The Sub-Committee accepted that batteries manufactured before 1 January 2009 could continue to be transported without a watt-hour marking after 31 December 2010.

### **2. Report of the informal working group on lithium batteries**

Informal document: INF.13 (France)

33. The expert from France presented the report on the second meeting of the informal working group on lithium batteries, held in Paris from 20 to 22 April 2009. The Sub-Committee noted that the work was continuing and that the group was to meet again in Japan from 9 to 11 November 2009.

### **3. Devices using lithium batteries which are intentionally active in transport**

Informal document: INF.20 (Switzerland)

34. The Sub-Committee adopted an amendment to special provision 188, paragraph (e), to indicate that the requirement does not apply to devices which are intentionally active in transport and which are not capable of generating a dangerous evolution of heat (see annex).

### **4. Vehicles fitted with lithium batteries for their operation**

Informal document: INF.23/Rev.1 (Germany)

35. The Sub-Committee agreed that the provisions on classification of vehicles fitted with lithium batteries under UN Nos. 3171, 3091 and 3481, taking into account special provision 240, were not sufficiently clear. The expert from Germany would submit a proposal at the next session.

### **C. Ultracapacitors**

Document: ST/SG/AC.10/C.3/2009/13 (kFI)

36. The majority of the experts agreed with kFI that a special heading should be inserted for ultracapacitors. The proposal nevertheless gave rise to many comments, in particular with regard to the real hazard posed, the proper shipping name to be used, the maximum limits for exemptions under chapter 3.4, the criteria for general exemption, the dangers presented by pressure build-up, the severity of the 10-metre drop test, transport when charged, and the rules governing the transport of used ultracapacitors.

37. The representative of kFI will submit a new proposal at the next session.

### **D. Energy storage system**

Document: ST/SG/AC.10/C.3/2009/26 US Fuel Cell Council (USFCC)

Informal documents: INF.37 (United States of America)  
INF.62 (United States of America)

38. The proposal to reconsider globally the provisions concerning the various electric energy storage systems covered by the Model Regulations, depending on the hazards presented during transport (chemical hazard, electric hazard, or both) was referred to a lunch time working group. The conclusions are contained in informal document INF.62 and delegations were invited to provide comments to the representative of RECHARGE who will coordinate the development of an analytical risk tool and will submit an analytical matrix for the next session.

## **VI. MISCELLANEOUS PROPOSALS OF AMENDMENTS TO THE MODEL REGULATIONS ON THE TRANSPORT OF DANGEROUS GOODS (agenda item 5)**

### **A. Packaging issues**

#### **1. Revision of Packing Instructions P004, P901, P902 and P903**

Documents: ST/SG/AC.10/C.3/2009/9 (United Kingdom)  
ST/SG/AC.10/C.3/2009/14 (IATA)

Informal document: INF.46 (Sweden)

39. Several experts were in favour of improving the wording of these packing instructions. An effort would nevertheless have to be made to keep the presentation of all packing instructions

logical; amending the definitions might have implications for other packing instructions or other parts of the regulations.

40. The United Kingdom expert and the representative of IATA undertook to put forward new proposals taking into account the comments made.

## **2. Marking of large packagings**

Document: ST/SG/AC.10/C.3/2009/1 (Sweden)

Informal document: INF.44 (Sweden)

41. The proposal for a minimum height requirement (12 mm) for markings on large packagings, with a transitional measure (to apply to large packagings manufactured as from 1 January 2014) was adopted (see annex).

## **3. Marking on packages**

Document: ST/SG/AC.10/C.3/2009/8 (Sweden)

Informal document: INF.45 (Sweden)

42. On the basis of the proposal by Sweden to impose a minimum size for the marking of the UN Number on packages, the Sub-Committee adopted amendments to paragraph 5.2.1.1 (see annex). It was noted that the minimum size requirement may have to be reviewed with respect to pressure receptacles.

43. With regard to the proposal to change the order of the information contained in the marking example, it was pointed out that it was just an example, and that there were no rules on how the UN Number should be displayed in relation to the shipping name. The UN Number could be displayed equally before, after, above or below the shipping name. The Sub-Committee decided to leave the current example unchanged.

## **4. Reference to ISO 10460:2005 in paragraph 6.2.2.1.1**

Document: ST/SG/AC.10/C.3/2009/6 (ISO)

Informal document: INF.38 (ISO)

44. Opinions were divided on the proposal of ISO to introduce a reference to standard ISO 10460:2005 in respect of the periodic inspection and testing of refillable welded steel cylinders with a test pressure of 60 bar and below. Some experts considered, among other things, that the standard was not easy to understand.

45. The proposal was put to the vote and rejected because the votes were tied.

46. Given that some experts had abstained owing to lack of information about the standard and how it was applied in practice, the representative of ISO was invited to provide more information, as appropriate, to those experts who were undecided, or who had opposed the proposal, and to raise the matter again if necessary at a future session.

## **5. The life of gas cylinders of composite construction bearing the UN mark**

Document: ST/SG/AC.10/C.3/2009/7 (ISO)

Informal documents: INF.7 (EIGA)  
INF.50 (Canada and United States of America)

47. Some experts were not in favour of the proposal by ISO, because they considered that allowing the use of cylinders designed according to standard ISO 11119 for a life of 15 years instead of an unlimited life would reduce the level of safety currently required.

48. The Sub-Committee noted that the European Industrial Gases Association (EIGA) had offered to lead a correspondence working group bringing together technical experts from the industry, the standard-setting bodies and the Sub-Committee, in order to exchange views and explain their respective arguments. The Sub-Committee would therefore discuss the matter again at a later date.

## **6. Salvage pressure receptacles**

Document: ST/SG/AC.10/C.3/2009/16 (Germany)

Informal document: INF.8 (EIGA)

49. After having taken note of the various comments on her proposal to introduce detailed requirements regarding salvage pressure receptacles, the expert from Germany said she would submit a new proposal.

## **7. Definition of Intermediate Bulk Containers (IBCs)**

Document: ST/SG/AC.10/C.3/2009/27 (IDGCA)

Informal documents: INF.27 and Adds.1 and 2 (IDGCA)  
INF.27/Add.1/Corr.1 (IDGCA)

50. The Sub-Committee took note of the new information provided by IDGCA on the tests carried out on 15-tonne flexible large bags used for the transport of dangerous solids in the Russian Federation. It was recalled that this issue had been considered at the thirty-first session (ST/SG/AC.10/C.3/62, paras. 66-68), and some experts found it regrettable that greater account had not been taken of the conclusions reached, in addition to providing information on the tests.

51. Accordingly, it was recalled that the Sub-Committee considered that such bags should not be treated as IBCs but as a particular type of bulk container. Despite the reservations of some

experts, the majority of those who spoke considered that the transport of dangerous goods could be permitted in such big bags, for example goods already authorized for bulk transport. In that case, however, it would be necessary to establish a range of requirements regarding the construction of big bags, performance testing, use and maintenance, as well as the operational aspects of loading onto vehicles and ships.

52. The Chairman invited IDGCA to work intersessionally with interested experts of the Sub-Committee to develop a comprehensive proposal, e.g. for inclusion of a new type of bulk containers (flexible bulk containers), that could be named BK3, with appropriate provisions in section 1.2.1 and chapters 3.2, 4.3 and 6.8.

## **B. Tank issues**

### **1. Paragraph 6.7.3.2.1**

Document: ST/SG/AC.10/C.3/2009/2 (Spain)

Informal document: INF.19 (Spain)

53. Several experts supported the proposal to add provisions on the closure systems for manlids on non-refrigerated gas tanks. Others considered that they were not necessary, however, since the rules established that shells should be designed and constructed in accordance with the requirements of a pressure vessel code recognized by the competent authority, and the proposed requirements were included in the technical specifications to be expected in such a code.

54. The proposal was put to a vote and was not adopted.

### **2. Filling ratio for the transport of pentafluoroethane (UN 3220) in tanks**

Document: ST/SG/AC.10/C.3/2009/17 (Germany)

55. The Sub-Committee adopted the proposed amendment to portable tank instruction T50 for UN No. 3220 (see annex).

### **3. Transport of different substances in the same tank compartment or in the same tank**

Document: ST/SG/AC.10/C.3/2009/18 (Germany)

Informal document: INF.58 (Germany)

56. The Sub-Committee agreed with the expert from Germany that it was important to avoid dangerous reactions between a new substance loaded into a tank and any residue from a previous load. However the problem concerns not only tanks but also bulk containers and any form of reusable packaging.

57. The expert from Germany prepared a revised proposal of amendment to paragraph 4.2.1.6 (INF.58), but since there were still comments by experts, she withdrew the proposal and invited all experts to provide their comments in writing so that she could prepare a new proposal for the next session.

**C. Transport of cargo transport units containing dangerous goods for cooling or conditioning purposes**

Document: ST/SG/AC.10/C.3/2009/23 (Germany and United Kingdom)

Informal documents: INF.26 (Netherlands)  
INF.48 (Switzerland)

58. Given the number of comments presented in informal documents INF.26 and INF.48, the expert from Germany said that she would prepare a new proposal for a new section 5.5.3 in cooperation with interested experts.

**D. “De minimis” quantities of dangerous goods**

Document: ST/SG/AC.10/C.3/2009/21 (United States of America)

Informal documents: INF.24 (United States of America)  
INF.52 (United Kingdom)  
INF.59 (United States of America)

59. The question of the transport of dangerous goods in very small quantities was referred to a lunch time working group, whose conclusions were reflected in informal document INF.59. The Sub-Committee noted that the working group considered that this issue should rather be addressed within the existing provisions, and that the expert from the United States would submit a specific proposal at the next session.

**VII. ELECTRIC DATA INTERCHANGE FOR DOCUMENTATION PURPOSES**  
(agenda item 6)

Document: ST/SG/AC.10/C.3/2009/20 (IATA)

Informal document: INF.5 (IATA)

60. The Sub-Committee noted with appreciation that IATA had made progress in developing dangerous goods transport document data standards, in cooperation with consignors, freight forwarders, VOHMA and the UNECE secretariat, as well as an XML schema incorporating all of the possible data elements in a structure that can be used to transmit information.

61. The Sub-Committee was informed that the RID/ADR/ADN Joint Meeting informal working group on telematics was also working on electronic data interchange. This work was not limited to documentation purposes, it covered also issues such as control of transport processes,

monitoring in the context of security, emergency response (see document ECE/TRANS/WP.15/AC.1/2009/25).

62. The expert from the United States said that similar activities were being carried out in North America in order to facilitate the use of electronic data interchange with a particular focus on the needs of emergency responders.

### **VIII. COOPERATION WITH THE INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA) (agenda item 7)**

#### **A. Guidance for the security in transport of radioactive material**

Informal document: INF.9 (IAEA)

63. The Sub-Committee noted that the IAEA had issued guidance on “Security in the transport of Radioactive Material”. Since IAEA would consider submitting a more detailed proposal of harmonization of the security provisions contained in the Model Regulations with those contained in this guidance document, experts were invited to provide comments to the representative of IAEA.

64. Certain experts drew attention to the fact that the basic security provisions and those concerning high consequence radioactive material contained in this guidance document were significantly more stringent than those contained in the Model Regulations. They underlined that although the Model Regulations are of recommendatory nature, in practice they are directly implemented through national or international legislation, and therefore any change to the existing provisions would have to be carefully considered. The representative of IMO underlined also that the security provisions contained in the IMDG Code should not go beyond the mandatory provisions of Part A of the International Ship and Port Facility Security (ISPS) Code.

#### **B. Documentation for excepted packages of radioactive material**

Informal document: INF.15 (Secretariat)

65. The Sub-Committee agreed that paragraph 5.1.5.4.2 of the Model Regulations should be corrected to reflect the fact that, according to the introductory sentence of para. 544 of the IAEA Regulations, the names and addresses of the consignor and of the consignee should be included in the documentation related to excepted packages of radioactive material (see annex).

### **IX. GLOBAL HARMONIZATION OF TRANSPORT OF DANGEROUS GOODS REGULATIONS WITH THE UN MODEL REGULATIONS (agenda item 8)**

#### **A. Dangerous Goods Trainers Association**

Document: ST/SG/AC.10/C.3/2009/5 (DGAC)

66. The Sub-Committee was informed of the activities of the Dangerous Goods Trainers Association in the United States of America and of its intention to disseminate information to trainers, develop training modules, and set up an independent accredited certification system.

67. The Sub-Committee welcomes in principle all training activities that can improve compliance with regulations, as well as exchange of information between training bodies that could raise training effectiveness. It was recalled nevertheless that, at least in countries which apply ADR, RID or ADN, the issuance of safety adviser or driver training certificates is subject to examination under control of the competent authority and in accordance with mandatory procedures defined in these legal instruments.

**B. Harmonization of RID/ADR/ADN with the 16<sup>th</sup> revised edition of the United Nations Recommendations on the transport of Dangerous Goods, Model Regulations**

Informal document: INF.28 (Secretariat)

68. The Sub-Committee noted the outcome of the meeting of the Ad hoc Working Group on the harmonization of RID/ADR/ADN with the UN Recommendations on the Transport of Dangerous Goods, as reported in documents ECE/TRANS/WP.15/AC.1/2009/16 and Add.1, which will be considered by the RID/ADR/ADN Joint Meeting at its September 2009 session. Some difficulties were encountered in relation to certain new provisions contained in the 16<sup>th</sup> revised edition of the United Nations Recommendations on the Transport of Dangerous Goods, Model Regulations, and the Sub-Committee may expect some feedback in this respect from the Joint Meeting at its next session.

69. The Editorial and Technical Group of the IMO Sub-Committee on Dangerous Goods, Solid Bulk Cargoes and Containers (DSC Sub-Committee) had also prepared proposals for harmonization of the IMDG Code, and feedback could also be expected as regards certain transposition problems.

**C. Position of the word “waste” in the dangerous goods description in the transport document**

Informal document: INF.43 (United Kingdom)

70. The Sub-Committee noted that there were inconsistencies between ADR/RID/ADN, where the word WASTE has to be included in the first position before the UN Number, and the Model Regulations where it has to be included before the proper shipping name, but after the UN number.

71. A member of the secretariat explained that, at the origin, the intent was to have the word WASTE at the beginning of the description to draw the attention to the fact that dangerous wastes were carried. At that time the first element of the description required by the UN Recommendations was the proper shipping name, and this was why it was required to place this word before the proper shipping name. Since then, the required sequence of information was modified, and the first element is now the UN number.

72. The Sub-Committee considered that the issue would have to be carried forward to the next session for decision.



**X. GUIDING PRINCIPLES FOR THE MODEL REGULATIONS** (agenda item 9)

73. As no document had been submitted under this agenda item, it was not discussed.

**XI. ISSUES RELATED TO THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS)** (agenda item 10)

**A. Report of the Working Group on Desensitized Explosives**

Document: ST/SG/AC.10/C.3/2009/11

74. This report was discussed under agenda item 2 (see paragraph 14).

**B. Corrosivity criteria**

Document: ST/SG/AC.10/C.3/2009/15 (Netherlands)

Informal documents: INF.3 and INF.25 (Netherlands)  
INF.12 (United Kingdom)  
INF.21 (AISE)  
INF.33 (CEFIC)

75. Some experts supported the proposal by the Netherlands, which had been developed in consultation with experts of the Sub-Committee through correspondence, to align the corrosivity criteria of the Model Regulations on those of the GHS. Some of them considered nevertheless that reproducing the text of the GHS as such was not appropriate because it was not drafted in a way suitable for regulatory purposes.

76. Some experts were of the view that the current criteria in the Model Regulations were consistent with those of the GHS, at least those based on animal testing and that, by virtue of the building-block approach, there was no need to include all the GHS criteria in the Model Regulations.

77. Certain experts were opposed to the full introduction of the GHS corrosivity criteria because they considered, as explained in informal documents INF.12, INF.21 and INF.33, that the GHS criteria were not coherent. Using different criteria, as allowed by the GHS, and in particular the pH based criteria, could lead to very different classification of the same product, and this could have dramatic consequences in the transport sector in particular as regards the use of packagings and tanks.

78. Certain delegations said that the corrosivity criteria of the GHS were under review and that they would prefer to wait for the outcome of this review before starting amending the criteria of the Model Regulations.

79. A member of the secretariat said that the criteria of chapters 3.2 and 3.3 of the GHS were indeed under editorial review, but according to the programme of work there did not seem to be any fundamental change to be expected and no proposal for substantial changes had been made officially. He said that if some delegations had problems with the application of the GHS

corrosivity criteria in the transport sector, they should raise their concerns through their delegation at the Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals (GHS Sub-Committee).

80. The expert from the United Kingdom said that it was the intention of his government to question the validity of some of the GHS corrosivity criteria at the forthcoming session of the GHS Sub-Committee.

81. There was no consensus within the Sub-Committee as to the approach to be followed as regards the corrosivity criteria to be used in the transport sector.

82. The Sub-Committee finally agreed that document ST/SG/AC.10/C.3/2009/15 should be carried forward to the next session, for consideration by a working group which will meet in the second week of the session to facilitate participation of experts of the GHS Sub-Committee.

### **C. Criteria to assign packing group to corrosive substances**

Informal document: INF.14 (Spain)

83. The Sub-Committee considered that this document could be discussed at the next session in the more general context of the question of corrosivity criteria.

### **D. Classification of aerosols**

Informal document: INF.11 (United Kingdom)

84. The Sub-Committee shared the view of the expert from the United Kingdom that aerosols should not fall within the scope of chapter 2.5 of the GHS (gases under pressure). Nevertheless it might be necessary to check how this issue is addressed under supply and use legislation.

### **E. Work of the informal working group on chemically unstable gases**

Informal document: INF.47 (Germany)

85. The Sub-Committee noted with appreciation the progress made by the working group, and agreed that the test method developed should be included in the Manual of Tests and Criteria.

### **F. Guidance for decisions not to classify substances and mixtures**

Informal document: INF.49 (Germany)

86. Several delegations underlined that, according to the transport regulations, the consignor has the responsibility to classify dangerous goods offered for transport, and in this respect, he should not rely on the safety data sheet if there were missing informations.

### **G. Informal working group on Test Method N.5**

Informal document: INF.54 (France and Germany)

87. The Sub-Committee noted that the group met in Paris from 23 to 24 April 2009, and will continue to work by correspondence. A report will be submitted at the next session, and the group should meet again in parallel to the next session of the GHS Sub-Committee in December 2009.

## **XII. OTHER BUSINESS** (agenda item 11)

### **A. Validity of temperature control criteria for organic peroxides**

Document: ST/SG/AC.10/C.3/2009/19 (ICCA)

Informal document: INF.4 (ICCA)

88. The Sub-Committee noted with appreciation the additional information provided by ICCA, as promised at the last session, for justification of the validity of the current temperature control criteria, in relation to an explosion accident in a port which involved a container loaded with methyl ethyl ketone.

### **B. Fuels in machinery and equipment**

Informal document: INF.10 (United Kingdom)

89. The expert from the United Kingdom invited delegations to provide comments in writing so that he could submit an official proposal for the next session. He invited experts to provide comments in writing.

### **C. Material compatibility requirements for gases in pressure receptacles**

Informal document: INF.51 (United Kingdom)

90. The expert from the United Kingdom invited delegations to provide comments in writing to submit an official document at the next session.

### **D. Corrections**

Informal documents: INF.34 and INF.35 (Secretariat)

91. The Sub-Committee noted that the secretariat, when preparing the 16<sup>th</sup> revised edition of the Recommendations on the Transport of Dangerous Goods, Model Regulations had found some mistakes in the texts adopted by the Committee in December 2008. The Sub-Committee endorsed the corrections proposed.

Informal document: INF.60 (Secretariat)

92. The Sub-Committee noted that corrections to P003, P904 and P907 would have to be made in the 16<sup>th</sup> revised edition of the Recommendations on the Transport of Dangerous Goods, Model Regulations.

#### **E. Report of the Secretary General**

Informal document: INF.36 (Secretariat)

93. The Sub-Committee took note of the report of the Secretary General on the work of the Committee in the biennium 2007-2008 which will be discussed by the Economic and Social Council at its 2009 substantive session

94. The expert from the United Kingdom expressed the wish that, when drafting the next resolution at the end of the biennium 2009-2010, the Sub-Committee would include a paragraph drawing the attention of the International Labour Organization to the importance of the provisions concerning fumigated cargo transport units.

#### **F. International Transport and Environmental Conference, Durban, 2-4 March 2009**

Informal document: INF.63 (RPMASA)

95. The Sub-Committee was informed of the outcome of the International Transport and Environmental Conference hosted by RPMASA in Durban from 2 to 4 March 2009.

### **XIII. ADOPTION OF THE REPORT (agenda item 12)**

96. The Sub-Committee adopted the report on its thirty-fifth session and its annex on the basis of a draft prepared by the secretariat.

## Annex

**DRAFT AMENDMENTS TO THE 16TH REVISED EDITION OF THE  
RECOMMENDATIONS ON THE TRANSPORT OF  
DANGEROUS GOODS, MODEL REGULATIONS**

**Part 1****Chapter 1.2**

1.2.1 Insert the following new definition:

*"Net explosive mass (NEM) means the total mass of the explosive substances, without the packagings, casings, etc. (Net explosive quantity (NEQ), net explosive contents (NEC), or net explosive weight (NEW) are often used to convey the same meaning.);"*

**Part 3****Dangerous Goods List**

In column 2, amend the name and description for the following entries to read as follows:

UN No.	Name and description
3276	NITRILES, LIQUID, TOXIC, N.O.S.
3278	ORGANOPHOSPHORUS COMPOUND, LIQUID, TOXIC, N.O.S.
3282	ORGANOMETALLIC COMPOUND, LIQUID, TOXIC, N.O.S.
3439	NITRILES, SOLID, TOXIC, N.O.S.
3464	ORGANOPHOSPHORUS COMPOUND, SOLID, TOXIC, N.O.S.
3467	ORGANOMETALLIC COMPOUND, SOLID, TOXIC, N.O.S.

Add the following new entry and amend the alphabetical index accordingly:

(1)	(2)	(3)	(4)	(5)	(6)	(7a)	(7b)	(8)	(9)	(10)	(11)
3496	BATTERIES, NICKEL-METAL HYDRIDE	9			[117]	0	E0	N/A			

**Chapter 3.3**

3.3.1 **SP188 (b)** At the end, delete "which may be transported in accordance with this special provision and without this marking until 31 December 2010".

**SP188 (e)** Insert the following new second sentence: "This requirement does not apply to devices which are intentionally active in transport (radio frequency identification (RFID) transmitters, watches, sensors, etc.) and which are not capable of generating a dangerous evolution of heat."

**SP304** Amend to read as follows:

"304 This entry may only be used for the transport of non-activated batteries which contain dry potassium hydroxide and which are intended to be activated prior to use by the addition of an appropriate amount of water to the individual cells."

## Part 4

### Chapter 4.1

4.1.4.1 **P010** At the end, add the following new row:

<b>Steel pressure receptacles</b> , provided that the general provisions of 4.1.3.6 are met.
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4.1.4.1 **P902** Before "The following packagings are authorized...", insert a new heading to read "Packaged articles" and before "The articles may also...", insert a new heading to read "Unpackaged articles".

4.1.4.3 **LP902** Before "The following large packagings are authorized...", insert a new heading to read "Packaged articles" and before "The articles may also...", insert a paragraph break and a new heading to read "Unpackaged articles".

### Chapter 4.2

4.2.5.2.6 **T50** For UN 3220, in the last column (Maximum filling ratio), replace "0.95" with "0.87".

## Part 5

### Chapter 5.1

5.1.5.4.2 Insert "and the name and address of the consignor and the consignee" before "shall be shown".

### Chapter 5.2

5.2.1.1 Insert the following new second sentence: "The UN number and the letters "UN" shall be at least 12 mm high, except for packagings of 30 litres or 30 kg capacity or less, when they shall be at least 6 mm in height and for packagings of 5 litres or 5 kg or less when they shall be of an appropriate size."

At the end, add the following new note:

**NOTE:** *The size requirements for the UN number marking shall apply as from 1 January 2014.*"

## **Chapter 5.4**

Add a new 5.4.1.5.10 to read as follows:

### **5.4.1.5.10 Firework classification reference**

When fireworks of UN Nos. 0333, 0334, 0335, 0336 and 0337 are transported, the dangerous goods transport document shall include a classification reference(s) issued by the competent authority.

The classification reference(s) shall consist of the competent authority's state, indicated by the distinguishing sign for motor vehicles in international traffic, the competent authority identification and a unique serial reference. Examples of such classification references are:

GB/HSE123456  
D/BAM1234  
USA EX20091234."

## **Part 6**

### **Chapter 6.6**

6.6.3.1 In the first paragraph, replace "durable and legible markings showing:" with "markings which are durable, legible and placed in a location so as to be readily visible. Letters, numerals and symbols shall be at least 12 mm high and shall show:"

At the end, add the following new note:

**NOTE:** *The size requirement for the primary marking shall apply for large packagings manufactured as from 1 January 2014.*"

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