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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 ITS THIRTY-FIRST SESSION**

(Geneva, 2-6 July 2007)

CONTENTS

| | <u>Paragraphs</u> | <u>Page</u> |
|---|-------------------|-------------|
| I. ATTENDANCE | 1-6 | 3 |
| II. ADOPTION OF THE AGENDA | 7 | 3 |
| III. PERFORMANCE OF PACKAGINGS, INCLUDING IBCS | 8-15 | 4 |
| IV. LISTING, CLASSIFICATION AND PACKING | 16-47 | 5 |
| A. Proposals relating to Class 1 | 16-23 | 5 |
| B. Other proposals | 24-47 | 7 |
| V. LIMITED QUANTITIES (Multimodal Harmonization) | 48-49 | 11 |
| VI. ELECTRONIC DATA INTERCHANGE (EDI) FOR DOCUMENTATION PURPOSES | 50-52 | 11 |

CONTENTS (cont'd)

| | <u>Paragraphs</u> | <u>Page</u> |
|--|-------------------|-------------|
| VII. MISCELLANEOUS PROPOSALS OF AMENDMENTS TO THE MODEL REGULATIONS ON THE TRANSPORT OF DANGEROUS GOODS..... | 53-71 | 12 |
| VIII. HARMONIZATION WITH THE INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA) REGULATIONS FOR THE SAFE TRANSPORT OF RADIOACTIVE MATERIAL | 72-82 | 15 |
| IX. GLOBAL HARMONIZATION OF TRANSPORT OF DANGEROUS GOODS REGULATIONS WITH THE UN MODEL REGULATIONS | 83-91 | 17 |
| X. GUIDING PRINCIPLES FOR THE MODEL REGULATIONS | 92 | 17 |
| XI. ISSUES RELATING TO THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS)..... | 93-97 | 18 |
| A. Chemically unstable gases..... | 93-94 | 18 |
| B. Substances having explosive properties and desensitized explosives..... | 95 | 18 |
| C. Miscellaneous..... | 96-97 | 18 |
| XII. OTHER BUSINESS | 98-102 | 19 |
| XIII. ADOPTION OF THE REPORT..... | 103 | 19 |

Annex 1: Draft amendments to the UN Recommendations on the Transport of Dangerous Goods, Model Regulations (15th revised edition)..... ST/SG/AC.10/C.3/62/Add.1

Annex 2: Draft amendments to Test Series 6 (Section 16 of the Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, 4th revised edition as amended)..... ST/SG/AC.10/C.3/62/Add.1

I. ATTENDANCE

1. The Sub-Committee of Experts on the Transport of Dangerous Goods held its thirty-first session from 2 to 6 July 2007, 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, Netherlands, Norway, Poland, Portugal, 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: Bulgaria, Ireland, Kenya, Republic of Korea, Romania, Slovakia and Switzerland.
4. The following intergovernmental organizations were represented: European Commission and Intergovernmental Organization for International Carriage by Rail (OTIF).
5. A representative of the International Maritime Organization (IMO) was also present.
6. Representatives of the following non-governmental organizations took part in the discussion of items of concern to their organizations: Association of Hazmat Shippers (AHS); Compressed Gas Association (CGA); Council on Safe Transportation of Hazardous Articles (COSTHA); Dangerous Goods Advisory Council (DGAC); European Bitumen Association (EUROBITUME); European Cosmetic, Toiletry and Perfumery Association (COLIPA); European Council of the Paint, Printing Ink and Artists' Colour Industry (CEPE), European Fireworks Association (EUFIAS); European Industrial Gases Association (EIGA); European Metal Packaging (EMPAC); European Aerosol Federation (FEA); International Air Transport Association (IATA); International Association for Soaps, Detergents and Maintenance Products (AISE); International Confederation of Container Reconditioners (ICCR); International Confederation of Drum Manufacturers (ICDM); International Confederation of Plastics Packaging Manufacturers (ICPP); International Council of Chemical Associations (ICCA); International Confederation of Intermediate Bulk Container Associations (ICIBCA); International Dangerous Goods and Containers Association (IDGCA); International Federation of Airline Pilots Associations (IFALPA); International Fibre Drum Institute (IFDI); International Organization for Standardization (ISO); International Paint and Printing Ink Council (IPPIC); International Vessel Operators Hazardous Materials Association (VOHMA); Responsible Container Management Association of Southern Africa (RCMASA); Sporting Arms and Ammunition Manufacturers' Institute (SAAMI); US Fuel Cell Council (USFCC); World Nuclear Transport Institute (WNTI).

II. ADOPTION OF THE AGENDA (agenda item 1)

Documents: ST/SG/AC.10/C.3/61 (Provisional agenda)
ST/SG/AC.10/C.3/61/Add.1 (List of documents)

Informal documents: INF.1, INF.2 (List of documents) and INF.8 (Provisional timetable)

7. The Sub-Committee adopted the provisional agenda prepared by the secretariat after amending it to take account of informal documents (INF.1-INF.50).

III. PERFORMANCE OF PACKAGINGS, INCLUDING IBCS (agenda item 2)

Testing of aerosol dispensers

Document: ST/SG/AC.10/C.3/2007/33 (AEROBAL)

Informal document: INF.3 (AEROBAL)

8. The Sub-Committee took note of the request by AEROBAL to defer consideration of its proposals to the next session.

Application of the new criteria for the drop test on IBCs

Informal document: INF.29 (France)

9. The Sub-Committee believed that, as the French expert had proposed, steps should be taken to allow use of IBCs manufactured before 1 January 2011 to continue, even if the design type being tested had not passed the drop test criteria of 6.5.6.9.5 (d) by the date of such approval. At the same time, a date should be set for the application of those new criteria for all identical design types in all modes of transport, at least for international transport. France's first proposal, to amend 4.1.1.3 and to add a note after 6.5.6.9.5 (d), was adopted with some editorial changes (see annex 1).

10. The expert from the United Kingdom expressed a reservation on that decision. He said that he wished to consult his legal services, since a general principle of not applying new provisions retrospectively to previously approved design types applied in his country and such packagings and IBCs could continue to be manufactured and used in accordance with previously approved design types which no longer complied with the new proposals.

11. Several experts considered that practice to be unacceptable in international transport.

12. France's proposal to renumber 6.5.4.5.5 as 6.5.4.4.4 was adopted (see annex 1).

Chapter 6.3 (6.3.5.4)

Informal document: INF.40 (United Kingdom)

13. The proposal to introduce an illustration, as Figure 6.3.4.5.1, to clarify the shape of the steel rod that should be used in the puncture test, was adopted (see annex 1).

Criteria for passing the drop test in 6.1.5.3.6.3

Document: ST/SG/AC.10/C.3/2007/1 (Spain)

Informal document: INF.23 (Spain)

14. The Sub-Committee adopted the proposal to amend the criteria in 6.1.5.3.6.3, with changes (see annex 1).

Criteria for passing the drop test for large packagings

Document: ST/SG/AC.10/C.3/2007/2 (Spain)

Informal document: INF.24 (Spain)

15. The Sub-Committee accepted the amendments to 6.6.5.2.2 and 6.6.5.3.4.4 (see annex 1).

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

A. Proposals relating to Class 1

Documents: ST/SG/AC.10/C.3/2007/4 (Norway)
ST/SG/AC.10/C.3/2007/12 (SAAMI)
ST/SG/AC.10/C.3/2007/16 (Australia)
ST/SG/AC.10/C.3/2007/17 (Australia)
ST/SG/AC.10/C.3/2007/22 (United States of America)
ST/SG/AC.10/C.3/2007/29 (Canada)
ST/SG/AC.10/C.3/2007/30 (United Kingdom)
ST/SG/AC.10/C.3/2007/31 (United Kingdom)

Informal documents: INF.7 (Australia)
INF.16 (SAAMI)
INF.27 (Netherlands)
INF.33 (United Kingdom)
INF.34 (United States of America)
INF.35 (United States of America)
INF.36 (United States of America)
INF.37 (United States of America)
INF.43 (Canada)

16. Following a presentation and brief discussion of the documents in plenary, their consideration was entrusted to a working group on explosives, which met from 2 to 4 July, chaired by Mr. A. Johansen (Norway).

17. The expert from the Netherlands emphasized that some of the submitted proposals concerned classification, and should therefore be considered also in the context of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). He suggested that they should be submitted to the GHS Sub-Committee as well.

18. It was agreed that the GHS Sub-Committee should be kept up to date, in accordance with the established procedures. It was, however, recalled that the Sub-Committee was responsible for work relating to physical hazards in the GHS framework, and that it must therefore bear in mind the multisectoral dimension of classification when considering such proposals.

Report of the Working Group on Explosives

Informal document: INF.45

19. The Sub-Committee endorsed the decisions of the working group reflected in paras. 5 to 9, and 11 to 17 and in the annex of the report which can be summarized as follows:

- (a) Addition of two notes after the table in 2.1.2 of the Model Regulations (assignment of explosive articles packed or fitted with their means of initiation to compatibility groups, ST/SG/AC.10/C.3/2007/4) (see annex 1);
- (b) Addition of a new entry UN 0509 for “Powder, smokeless, 1.4 C” (ST/SG/AC.10/C.3/2007/12, INF.7, INF.16) (see annex 1);
- (c) Invitation to the expert from Australia to submit a new proposal concerning proper shipping names for electric and electronic detonators, bearing in mind that a change to the definition of detonator in Appendix B in order to cover electronic detonators might be more appropriate (ST/SG/AC.10/C.3/2007/16);
- (d) More work to be done as regards classification of fireworks as a consequence of Net Explosive Quantity (NEQ) (ST/SG/AC.10/C.3/2007/17 and INF.19), and further proposals from the United Kingdom and France to be expected;
- (e) Decision on amendment to UN 3474 for inclusion of 1-HOBt Monohydrate postponed pending provision of additional information (ST/SG/AC.10/C.3/2007/22, INF.33 and INF.37); proposals to develop guidance on how to demonstrate compliance with special provision 28 or that desensitized explosive remain desensitized encouraged;
- (f) Informal intersessional working group to be convened by the expert from the United Kingdom for further work on the review of Test Series 7 (ST/SG/AC.10/C.3/2007/30);
- (g) New proposals for a new entry for “comets” in the firework default classification table and on the time/pressure tests to be prepared for the July 2008 session (ST/SG/AC.10/C.3/2007/31);
- (h) Comments on the problem of testing “explosive properties” of pharmaceutical products (INF.35) to be transmitted to the expert from the United States of America;
- (i) Further work on criteria for classifying an article as non-explosive (INF.36) to be done;
- (j) Sensitiveness to friction or impact not considered to be an issue for classification, but should be communicated through safety data sheet; recommendation to the GHS Sub-Committee that a reference to Test Series 1 for determining explosive properties should be included in the GHS (ST/SG/AC.10/C.3/2007/10); expert from Germany to consider submitting new proposal if deemed necessary;

- (k) Proposal of amendment to Chapter 2.1 of the GHS concerning classification of 1.4S articles carried forward to the July 2008 session (ST/SG/AC.10/C.3/2007/13);
- (l) Expert from Germany considering hosting a session of an informal working group to develop proposals in Part 2 of the GHS concerning classification of desensitized explosives.

20. For the additional test for 1.4S classification proposed in ST/SG/AC.10/C.3/2007/29 (para. 10 of the report), the Sub-Committee noted that the working group had not reached consensus. Some experts felt that it was urgent to introduce such a test because the current tests relate mainly to fire situations only and do not cover other possible events that could affect 1.4S article packages, such as accidental functioning. Others felt that the need for this additional test had not yet been demonstrated, and since it would affect the current classification of many articles, additional test results should be provided in particular for articles other than shaped charges.

21. Several experts did not agree with the proposal of the working group that the text proposed be placed between square brackets which would be deleted if no new results or new proposals were submitted. They felt that this would be an incentive for those experts supporting the proposal not to provide additional data that would justify this additional test, when in principle it should be up to them to provide the necessary arguments and justifications and to explain the likely effects on the classification of articles currently classified as 1.4S.

22. After lengthy discussions, the Chairman of the working group said that the sentence “if no new results or new proposals are submitted, the brackets are to be removed” should be deleted from the report, since this sentence was mainly intended to ensure that a decision on this issue be taken as soon as possible. The Sub-Committee agreed to place the text proposed by the expert from Canada in square brackets pending further results or proposals in favour or against the test (see annex 2). Members of the Sub-Committee which were not represented in the working group session were invited to consult their experts on explosives so that they could express a position when this issue is discussed again.

23. The issues which concern the GHS should be brought to the attention of the GHS Sub-Committee, including the question of the review of the UN Test Series 7 which was not on its agenda.

B. Other proposals

Classification of substances listed by name in the dangerous goods list

Document: ST/SG/AC.10/C.3/2007/3 (ICCA)

Informal document: INF.9 (ICCA)

24. Some delegations supported in principle the proposal for a more general approach that would make it possible, in accordance with special provision 223, for those dangerous goods that were included in the list and that did not meet the classification criteria to be excluded from the regulation, on the proviso that they were not listed on the basis of experience of their effects on humans.

25. Other delegations pointed out that, while they did not oppose the proposal, the principle was not a general one in RID and ADR, which had various approaches depending on the class. Others considered that provisions should be made also for cases in which the classification criteria would point to a different classification than the one provided in the list.

26. The representative of ICCA said that he would submit a new proposal, taking into consideration the various comments.

Allocation of substances and articles to packing instruction P099

Document: ST/SG/AC.10/C.3/2007/6 (IATA)

27. The Sub-Committee noted that, for the substances assigned to group A in the proposal by IATA, land transport regulations stipulated packing conditions P001 or P002 and, where applicable, IBC02, while the IMDG Code required approval by a competent authority. That requirement might cause practical problems in multimodal transport since it would mean involving the competent authorities of the different countries concerned by the international transport.

28. It was also noted that the IMDG Code set out more stringent requirements for instructions P001 and P002 than those in the United Nations Model Regulations; the Sub-Committee accordingly adopted by consensus the IATA proposal on the allocation of this group of substances to specific packing instructions (UN Nos. 1194, 1222, 1261, 1865, 3094, 3095, 3096, 3124 and 3301) (see annex 1).

29. As for the group B substances in the IATA proposal (UN Nos. 3123 and 3125), most delegations were of the view that harmonized packing instructions should be required, rather than reference to a competent authority, but opinions were divided on which instructions should be applied. It was therefore decided that the issue should be studied more closely and revisited at a subsequent session.

30. Where the group C substances were concerned (UN Nos. 2186, 2249, 3097, 3100, 3121, 3127, 3133, 3137, 3255), the Sub-Committee noted that most modal regulations prohibited the carriage of such substances, but that competent authorities could conclude bilateral or multilateral agreements to permit their carriage under mutually agreed conditions. It would therefore make sense to retain packing instruction P099 in the Model Regulations, even if some experts considered it preferable to prohibit the carriage of these substances on principle.

31. The representative of CGA said that the inland transport of refrigerated liquid hydrogen chloride (UN No. 2186) in tanks was permitted and did occur in the United States of America and in Canada.

Classification of nail varnish

Document: ST/SG/AC.10/C.3/2007/20 (France)

32. The proposal to amend special provision 198 and to add special provision 163 to UN No. 1266 was adopted (see annex 1).

Packing instruction 804 for UN No. 1744 (bromine)

Document: ST/SG/AC.10/C.3/2007/21 (United States of America)

33. The Sub-Committee noted that paragraph 1 of packing instruction P804 differed significantly from paragraph 1 of packing instruction P601 in that it no longer included a requirement for an intermediate metal receptacle for combination packagings.

34. Packing instruction P804 for bromine had been proposed by the United Kingdom at the Sub-Committee's twenty-eighth session in informal document INF.6, and then in document ST/SG/AC.10/C.3/2006/36, in the context of the use of pressure receptacles (P804 (4)) for bromine.

35. The expert from the United Kingdom said that it had been a deliberate intention to amend paragraph 1, but the other members of the Sub-Committee were of the view that that amendment had not been justified or clearly brought to their attention when the new instruction P804 was adopted, and the original text should therefore be restored as a corrigendum to the text of the 15th revised edition (see ST/SG/AC.10/1/Rev.15/Corr.1).

36. The Sub-Committee similarly decided to amend the text with a view to permitting the use of rigid plastic receptacles as intermediate packaging, in addition to metal receptacles. The Sub-Committee recommended that this amendment be adopted by the international modal organizations immediately when they adopt the provisions of the 15th revised edition of the UN Recommendations for implementation through their respective legal instruments.

Amendment to packing instruction P620

Document: ST/SG/AC.10/C.3/2007/23 (United States of America)

37. The proposed new additional requirement 4 in instruction P620 was adopted (see annex 1).

Amendment to packing instruction P650

Informal document: INF.25 (IATA)

38. Taking note of the new additional requirement 4 in instruction P620, the IATA representative pointed out that his proposal that other hazardous substances, included for the neutralization of hazards, should not be packed in the same packaging as infectious substances packed in accordance with instruction P650 could also apply to instruction P620.

39. Several experts pointed out that the packagings for infectious substances could also contain other hazardous substances which could be used to neutralize the infectious substances in the event of an accidental leak. The appropriate experts should therefore be consulted, including WHO experts, before a decision was taken on the proposal, which had been submitted late. Consideration of the document was accordingly deferred to the next session.

Subsidiary risks for toxic by inhalation liquids

Document: ST/SG/AC.10/C.3/2007/25 (United States of America)

40. The proposal to add a special requirement 313 or 329 to UN Nos. 3383, 3384, 3385, 3386, 3389 and 3390, stipulating an additional flammability or corrosivity label, to be used when toxic by inhalation substances which already had one identified subsidiary risk exhibited an additional risk of flammability or corrosivity, was adopted (see annex 1).

Classification of tars (UN No. 1999)

Document: ST/SG/AC.10/C.3/2007/28 (Eurobitume)

41. The description of UN No. 1999 was amended in the English version, to take into account the arguments put forward by Eurobitume (see annex 1).

Ethyl chloride (UN No. 1037)

Informal document: INF.15 (IATA)

42. The proposal to include a special provision in packing instruction P200 to permit the carriage of ethyl chloride in capsules was adopted (see annex 1).

Problems associated with the transport of lithium batteries

Informal documents: INF.31 (IFALPA)
INF.41 (United States of America)

43. The Sub-Committee noted that lithium batteries, including lithium metal batteries, continued to cause significant problems, in particular in air transport, and a number of incidents had been reported.

44. The Sub-Committee noted that IATA was organizing a meeting on the issue, scheduled for 4 and 5 October 2007 in Montreal, in preparation for the meeting of the International Civil Aviation Organization (ICAO) Dangerous Goods Panel, at which it would endeavour to find a way of tackling those problems through the regulations on air transport.

45. Several experts recognized the serious nature of the problem, in particular for air transport, but pointed out that accidents had also been reported on other modes of transport and that the issue should be therefore tackled from a multimodal standpoint.

46. The IATA representative said that all the Sub-Committee experts were invited to participate in the working group and that it would be sufficient for them merely to send an e-mail, as soon as possible, indicating their wish to do so.

47. The Sub-Committee suggested that the group should examine the various causes of accidents and consider where in the regulations these causes could be addressed. If the causes were connected with the use of such batteries by airline passengers, ICAO and IATA could tackle the problem through airline regulations. If, however, the causes derived from an intrinsic

safety defect in the products, connected with inadequate provisions in the Model Regulations, for example those relating to design and testing, it would be preferable to find multimodal solutions through the framework of the Sub-Committee. If that was the case, the IATA-ICAO working group could report its findings to the Sub-Committee at the December 2007 session and the Sub-Committee could undertake to find solutions over the current biennium.

V. LIMITED QUANTITIES (MULTIMODAL HARMONIZATION) (agenda item 4)

Document: ST/SG/AC.10/C.3/2007/26 (AHS)

Informal documents: INF.11 (VOHMA)
INF.13 (COSTHA)
INF.42 (United States of America)
INF.48 (Working Group report)

48. After discussion of the documents in plenary session, the Sub-Committee agreed that the issue of improvement of the multimodal harmonization of limited quantities and consumer quantities provisions should be discussed by a lunch time working group.

49. The working group analysed the provisions applicable to different modes of transport, and started to develop suggestions for harmonization. The Sub-Committee agreed that a wide consultation of the modal organizations concerned would be necessary and requested the secretariat to transmit the report of the working group (INF.48) to the relevant international organizations in order to seek feedback which would allow to develop further proposals at the next session.

VI. ELECTRONIC DATA INTERCHANGE (EDI) FOR DOCUMENTATION PURPOSES (agenda item 5)

Electronic dangerous goods transport data

Informal document: INF.5 (IATA)

50. Several experts recalled that, in many cases, paper documentation was still needed for the transport of dangerous goods, first because electronic documents or signatures were still not legally accepted in many countries as evidence of a contract of carriage, but also because the availability of the information on the dangerous goods transported on board the means of transport was necessary for emergency response purposes and this was not generally guaranteed with the use of electronic data interchange.

51. Nevertheless, the Sub-Committee agreed that steps had to be taken to start studying the possibility to remove the mandatory requirements for a physical dangerous goods transport document and to instead permit the use of EDI as an alternative without prejudice to safety.

52. The Sub-Committee noted that there was a lack of uniformity in the various EDI systems currently used as an aid to paper documentation, and agreed that it was necessary to establish an harmonized structure for the contents of such systems and that cooperation with the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) should be sought through the secretariat of the United Nations Economic Commission for Europe.

VII. MISCELLANEOUS PROPOSALS OF AMENDMENTS TO THE MODEL REGULATIONS ON THE TRANSPORT OF DANGEROUS GOODS (agenda item 6)

Provisions concerning training

Document: ST/SG/AC.10/C.3/2007/7 (Sweden)

Informal documents: INF.10 (VOHMA)
INF.12 (COSTHA)

53. Most experts considered that it was already clear from paragraph 1.3.4 of the Model Regulations that training had to be provided or verified upon employment, and not after employment. However, since a court of justice in Sweden had concluded from the current text that it was sufficient for a company to promise that employees would receive training after employment, it was agreed to amend paragraphs 1.3.1, 1.3.2 and 1.5.2.7 as proposed by the expert from Sweden to make it clear that workers have to be trained before being involved in transport of dangerous goods activities.

54. Some experts felt that this should not prevent untrained workers to work under the supervision of a trained person during the training period.

Requirements for open cryogenic receptacles

Document: ST/SG/AC.10/C.3/2007/8 (United Kingdom)

55. The Sub-Committee expressed its appreciation for this proposal of the United Kingdom which provided a basis for discussing the issue of transport conditions for open cryogenic receptacles.

56. Several delegates indicated that they would like to participate in the development of a proposal, and they were invited to transmit, before the middle of August 2007, their comments in writing to the expert from the United Kingdom who would prepare a second step proposal for the next session.

Periodic inspection test for gas receptacles

Document: ST/SG/AC.10/C.3/2007/9 (EIGA)

Informal document: INF.14 (ISO) (ISO standard 16418:2006 on acoustic emission testing (AT) for periodic inspection)

57. Some experts did not support the proposed deletion of NOTE 2 under 6.2.1.6.1(d) because they considered that the use of testing methods equivalent to the hydraulic pressure test should remain under the control of the competent authority.

58. Other experts supported the principle of authorizing modern techniques for testing provided that references to suitable standards were introduced. Some experts felt that the ISO

standard 16148:20006 on acoustic emission testing (AT) for periodic inspection did not contain appropriate rejection criteria.

59. The representative of EIGA said that he would prepare a revised proposal to take account of the various comments made.

Informal document: INF.6 (Belgium)

60. The Sub-Committee agreed to introduce a NOTE under 6.2.1.6.1 indicating that the testing and inspection intervals are contained in P200 (see annex 1).

Definitions concerning transport units

Documents: ST/SG/AC.10/C.3/2007/15 (Australia)
ST/SG/AC.10/C.3/2007/18 (Australia)

Informal document: INF.46 (Secretariat)

61. The Sub-Committee decided that the term “transport unit” should be replaced by “cargo transport unit” as in the IMDG Code.

62. The Sub-Committee adopted the definitions for cargo transport unit and closed cargo transport unit as proposed by the expert from Australia, with some editorial changes including the inclusion of a reference to MEGCs in the definition of cargo transport unit and some consequential amendments (see annex 1). It was agreed that these definitions should be included in 1.2.1.

Packing and marking of limited quantities

Document: ST/SG/AC.10/C.3/2007/19 (France)

Informal document: INF.47 (Drafting group)

63. Proposals 1 (concerning paragraph 3.4.2), 2 (concerning paragraph 3.4.3) and 3 (concerning paragraph 3.4.10) were adopted with some changes (see annex 1).

Portable tanks for Packing Group I solids

Document: ST/SG/AC.10/C.3/2007/24 (United States of America)

64. The proposal to add a new footnote “b” against the words “Bottom opening requirements” in the heading of the last column of the list of portable tank instructions in 4.2.5.2.6 was adopted. This note will allow bottom outlets conforming to the requirements of 6.7.2.6.2 on portable tanks for the transport of Packing Group I substances in Divisions 4.2 and 4.3 since these substances cannot be unloaded through top openings (see annex 1).

Orientation arrows for goods packed in limited quantities

Document: ST/SG/AC.10/C.3/2007/27 (Austria)

65. The Sub-Committee considered that the proposed additional sentence at the end of section 3.4.8 was unnecessary because orientation arrows are already required for goods packed in limited quantities when relevant. As stated in the last sentence of 3.4.1, all provisions of the Model Regulations apply to the transport of dangerous goods packed in limited quantities except as specifically provided in Chapter 3.4, and therefore the marking provisions of 5.2.1.7, which are not exempted according to Chapter 3.4, are applicable.

Big bags with a capacity of 10 m³

Document: ST/SG/AC.10/C.3/2007/34 (IDGCA)

Informal document: INF.4 (IDGCA)

66. Most experts considered that such big bags should not be treated as IBCs because the tests required for IBCs might not be appropriate (e.g. they would have to be loaded to nearly 60 tonnes for the top lift test), and there was no evidence in the documentation submitted that these bags met the testing requirements of Chapter 6.5.

67. Some experts pointed out that low hazard solids may already be transported in bulk packagings, and they doubted that there was a real demand for such bags in international transport.

68. Some delegations expressed support for further work on this issue, in which case it would be useful that more information on test reports be provided. Consideration should then be given to the possibility of treating such bags as a new kind of bulk packaging with specific requirements and test procedures.

Fumigated transport units and transport units containing dry ice as a refrigerant

Informal document: INF.17 (United Kingdom)

69. The expert from the United Kingdom said that he would prepare an official proposal on this subject for the next session, and he invited the other delegates to provide comments in writing before the middle of August 2007.

References to ISO standards in the Model Regulations

Informal document: INF.21 (United Kingdom)

70. The Sub-Committee decided that this document should be submitted as an official document to the next session so that experts may have time to check whether it is appropriate to refer to the updated version of some of these standards.

Proposed revision of Chapter 2.9

Informal document: INF.26/Rev.1 (United Kingdom)

71. The Sub-Committee noted that IMO would discuss, at the September 2007 session of its Sub-Committee on Dangerous Goods, Solid Cargoes and Containers (DSC12) changes to Chapter 2.9 of the IMDG Code. It noted also that there were some differences between Chapter 2.9 – or its equivalent – in various modal regulations, which were sometimes justified. Several experts supported an improvement of this Chapter 2.9 along the line suggested by the expert from the United Kingdom, but the Sub-Committee felt that this could not be done on the basis of a late informal document.

VIII. HARMONIZATION WITH THE INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA) REGULATIONS FOR THE SAFE TRANSPORT OF RADIOACTIVE MATERIAL (agenda item 7)

Denial of shipments

Documents: ST/SG/AC.10/C.3/2007/5 (WNTI)
ST/SG/AC.10/C.3/2007/14 (Australia)

Informal document: INF.44 (IAEA)

72. The Sub-Committee noted with appreciation the efforts made by the industry and the IAEA to solve the problem of denial of shipment of radioactive material.

73. Several experts felt that a detailed analysis of the various obstacles to transport radioactive material in each country, as proposed by Australia to the IAEA, would assist in identifying where problems exist and in providing access maps for carriers and shippers.

74. It was noted that the problems of denial of shipments of radioactive material had also started to occur with other dangerous goods, notably infectious substances which, notwithstanding the economic consequences, had also negative effects on the provision of medical services throughout the world. Lessons learnt with Class 7 could therefore be useful for other types of dangerous goods.

Radioactive substances in excepted packages with subsidiary risks

Document: ST/SG/AC.10/C.3/2007/32 (IATA)

75. Several experts shared the view of IATA that the English version of special provision 290 was confusing.

76. A member of the secretariat confirmed that the interpretation by IATA of this special provision corresponded to the intent of the Sub-Committee when this special provision was drafted to transpose the IAEA Regulations in the UN Model Regulations. He explained that according to the IAEA Regulations, when radioactive materials possess hazards of other classes, both the requirements of the IAEA Regulations concerning radioactivity and those of the UN Model Regulations for the other hazards should be applied. This did not cause a problem for

packing and labelling, but was problematic for the identification of the goods by a UN number, marking of the package and entering information in the transport document.

77. The Sub-Committee had considered that only one UN number should be assigned, i.e. the one corresponding to the predominant hazard, which was that assigned to the radioactive material for radioactive material other than those in excepted packages, and that corresponding to the subsidiary risk for radioactive material in excepted packages. The way to deal with such material had been explained in special provisions 172 and 290.

78. Nevertheless, this solution was not entirely satisfactory in the case of radioactive material in excepted packages with subsidiary risks because the requirements of the IAEA Regulations could not be strictly followed. According to the IAEA Regulations, communication of the radioactivity hazard is ensured through: (a) the marking of the UN number assigned to the excepted package (without the proper shipping name) on the package; (b) the mention of this UN number in the transport document without the proper shipping name; (c) the marking of the word "RADIOACTIVE" on each instrument or article, or in the case of consumer products on an internal surface of the package visible at its opening.

79. The fact that the UN number assigned was that corresponding to the subsidiary risk rather than that corresponding to the excepted package meant that communication of the radioactivity hazard to the carrier and emergency responders was no longer possible through package marking on the transport document, and for this reason it was decided to supplement the proper shipping name corresponding to the subsidiary risk with the proper shipping name corresponding to the excepted package, in accordance with the current practice in RID and ADR at that time. Since marking of the proper shipping name on the package is not required by RID and ADR, the secretariat believed that it was not the intent to require the marking of this additional information on the package, but the wording of special provision 290 could indeed lead to a different interpretation.

80. Some experts recalled that the radioactivity hazard presented by excepted packages was very low, and wondered whether communication of this hazard through the transport document or a marking on the package was really necessary. The Sub-Committee felt that this question, as well as the more general one how to deal with such packages, should be addressed to the IAEA Transport Committee (TRANSSC) through the IAEA Working Group on UN/IAEA harmonization which would meet in September 2007.

81. The question of how to treat excepted packages containing limited quantities of radioactive material with subsidiary risks which could also be carried under the provisions of Chapter 3.4 had also been raised during the process of transposition, but finally had not been addressed. This could also be discussed by the IAEA Working Group together with the remark of IATA concerning excepted quantities of Chapter 3.5.

Correction to 1.5.2.2

Informal document: INF.20 (United Kingdom)

82. The Sub-Committee agreed that the correction proposed should be made (see ST/SG/AC.10/1/Rev.15/Corr.1).

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

Informal document: INF.18 (Secretariat)

83. The Sub-Committee considered the various issues raised by the IMO Editorial and Technical Group and the UNECE/OTIF ad hoc Working Group on the Harmonization of RID/ADR/ADN with the UN Recommendations during the process of preparing proposals of harmonization of the IMDG Code, RID, ADR and ADN with the 15th revised edition of the UN Recommendations.

84. For the question of the definition of small freight containers, it was agreed that the issue should be referred to the IAEA since this definition comes from the IAEA Regulations and is not in line with that currently contained in RID, ADR, IMDG Code and ISO 830:1981.

85. The Sub-Committee agreed that there was a problem with 1.5.1.5.1 (provisions which apply to radioactive material excepted packages) and 1.5.1.5.2 (provisions which do not apply) since these two paragraphs do not cover all provisions contained in the Model Regulations.

86. The Sub-Committee agreed that the additional sentence proposed by the secretariat to cover animal material affected with pathogens of Category B should be added to 2.6.3.6.2 (see ST/SG/AC.10/1/Rev.15/Corr.1).

87. The Sub-Committee agreed to modify special provision 335 to indicate that, when free liquid is visible, the mixture should be classified under UN 3082 (see ST/SG/AC.10/1/Rev.15/Corr.1).

88. For the question of how to treat mixtures of solids and liquids which are likely to liquefy during transport, due to temperature or vibration, it was recalled that such situations are addressed in 4.1.1.13 and 4.3.1.4.

89. The Sub-Committee agreed to delete the last sentence of special provision 328 (see ST/SG/AC.10/1/Rev.15/Corr.1).

90. The Sub-Committee agreed to modify the table of quantities in 3.5.1.2 to clarify which units should be used depending on whether the substance is liquid or solid (see ST/SG/AC.10/1/Rev.15/Corr.1).

91. The Sub-Committee agreed to modify the NOTE under 4.1.1, paragraphs 5.2.2.2.1.3 and 5.2.2.2.1.4 and 5.3.1.2.1 (a) as proposed by the secretariat (see ST/SG/AC.10/1/Rev.15/Corr.1).

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

92. No document had been submitted under this agenda item, which was not discussed.

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

A. Chemically unstable substances

Report of the first meeting of the informal working group on chemically unstable substances

Informal document: INF.22 (Germany)

93. The expert from Germany said that he was intending to organize a second meeting of this informal working group before the next session of the Sub-Committee, and he invited all experts who would be interested in participating to inform him accordingly by e-mail so that he could send invitations.

94. The Chairman noted that, according to paragraph 17 of the report, the experts from Germany, after having received information regarding test methods for determining the energy output of reactions in gaseous phase, said that they would consider an approach similar to that in the United States standard NFPA704. Therefore he felt that if the expert from Germany agreed to follow the same approach, it might not be necessary to convene a new working group meeting, especially as very few experts had participated in the first meeting. The expert from Germany concurred with this view.

B. Substances having explosive properties and desensitized explosives

Documents: ST/SG/AC.10/C.3/2007/10 (Germany)
ST/SG/AC.10/C.3/2007/13 (SAAMI)

Informal document: INF.30 (Germany)
INF.45 (Report of the Working Group on Explosives)

95. Consideration of these issues was entrusted to the Working Group on explosives (the conclusions are contained in INF.45 and paras. 19 to 23 of this report).

C. Miscellaneous

Flammable liquids

Document: ST/SG/AC.10/C.3/2007/11 (Germany)

96. There was no consensus on the proposed amendment to NOTE 2 of the GHS, Section 2.6.2. Several experts recognized that the sustained combustibility test of Section 32 of the Manual of Tests and Criteria was not suitable for flammable liquids of the GHS Category 4, but it was felt that further work could be done to consider how to deal with such liquids before adopting new texts at the beginning of a biennium.

97. The proposals No. 2 (calculation of the flash point of mixtures, in 2.6.4.2.2), No. 3 (standards cited for determining the flash point in 2.4.6.2.5) and No. 4 (determination of the boiling point) were adopted (see ST/SG/AC.10/C.4/2007/6).

XII. OTHER BUSINESS (agenda item 11)

Report of the Secretary General on the work of the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

Informal document: INF.32 (Secretariat)

98. The Sub-Committee noted that the report of the Secretary General would be discussed by the Economic and Social Council on 23 July 2007.

Draft corrections to the 15th revised edition of the Recommendations on the Transport of Dangerous Goods

Informal document: INF.39 (Secretariat)

99. The Sub-Committee endorsed the corrections proposed by the secretariat (see ST/SG/AC.10/1/Rev.15/Corr.1).

Request for consultative status

Informal document: INF.38 (EUFIAS)

100. Several experts supported the application since they considered that, as a matter of principle, representatives of the industry should be given the opportunity to be consulted in their area of expertise.

101. Other experts expressed concern at the fact that the application by EUFIAS did not seem to be motivated by safety improvement concerns, but rather by the wish to revert to decisions taken during the last biennium as regards the safety of the transport of fireworks.

102. The application was put to the vote and was not accepted.

XIII. ADOPTION OF THE REPORT (agenda item 12)

103. The Sub-Committee adopted the report on its thirty-first session and the annexes thereto on the basis of a draft prepared by the secretariat.
