

Distr. GENERAL

ST/SG/AC.10/C.3/66 14 August 2008

Original: ENGLISH

## 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-THIRD SESSION

(Geneva, 30 June – 9 July 2008)

## CONTENTS

		Paragrap	<u>hs</u> <u>Page</u>
I.	ATT	ENDANCE 1 - 0	6 4
II.	ADOPTION OF THE AGENDA (agenda item 1) 7		
III.	EXP	LOSIVES AND RELATED MATTERS (agenda item 2)	26 5
	A.	Additional test for 1.4S clarification	9 5
	B.	Criteria for excluding articles from Class 1 10 -	11 6
	C.	Desensitized explosives 12 -	
	D.	Miscellaneous proposals 16 -	18 7
	E.	GHS related issues	
IV.	PER	FORMANCE OF PACKAGINGS, INCLUDING IBCs	
	(agei	nda item 3)	36 10
	A.	Permeation through the walls of plastic packagings	29 10
	В.	Remanufactured large packagings 30	10
	C.	Period of use of packagings and IBCs for the transport	
		of medical waste (UN No. 3291) 31 - 3	32 10

## CONTENTS (continued)

		Paragraphs 1 1 2 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2	Page
	<ul><li>D. Cross bottling of composite IBCs</li><li>E. Pharmaceutical aerosols</li></ul>		11 11
V.	<ul> <li>LISTING, CLASSIFICATION AND PACKING (agenda item 4).</li> <li>A. Cells and batteries</li></ul>	37 - 47 48 - 50	12 12 14 14
VI.	LIMITED QUANTITIES (MULTIMODAL HARMONIZATION) (agenda item 5)	76 - 77	18
VII.	ELECTRONIC DATA INTERCHANGE (EDI) FOR DOCUMENTATION PURPOSES (agenda item 6)	78 - 83	19
VIII.	MISCELLANEOUS PROPOSALS OF AMENDMENTS TO THE MODEL REGULATIONS ON THE TRANSPORT OF DANGEROUS GOODS (agenda item 7)	84 - 123	20
	<ul> <li>A. Gases</li> <li>B. Open cryogenic receptacles</li> <li>C. Tanks</li> <li>D. Fumigated cargo transport units</li> <li>E. Consticulty modified mismo constitutes and experiments.</li> </ul>	91 92 - 101	20 21 21 23
	<ul><li>E. Genetically modified micro-organisms and organisms or living modified organisms (LMOs)</li><li>F. Miscellaneous</li></ul>		23 24
IX.	HARMONIZATION WITH THE INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA) REGULATIONS FOR THE SAFE TRANSPORT OF RADIOACTIVE MATERIAL (agenda item 8)	124 - 126	26
X.	GLOBAL HARMONIZATION OF TRANSPORT OF DANGEROUS GOODS REGULATIONS WITH THE UN MODEL REGULATIONS (agenda item 9)	127 - 130	26
XI.	GUIDING PRINCIPLES FOR THE MODEL REGULATIONS (agenda item 10)	131	27
XII.	ISSUES RELATING TO THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS) (agenda item 11)	132 - 140	27
	<ul> <li>A. Implementation of the GHS in countries</li> <li>B. Flammable liquids (sustained combustion)</li> <li>C. Corrosivity criteria</li> <li>D. Corrections to section 2.9.3 of the Model Regulations</li> </ul>	133 - 135 136 - 139	27 27 28 28

## CONTENTS (continued)

		Paragraphs	Page
XIII. OT	HER BUSINESS (agenda item 12)	. 141 - 148	29
A.	Requests for consultative status	. 141 - 142	29
В. С.	2008 Emergency Response Guidebook Showing changes in the printed version of the		29
D.	UN Model Regulations Developing and maintening experts on the regulations	. 144 - 146	29
E.	applicable to safe, secure and efficient transport of dangerous goods Review on the commitments of the Organization for	. 147	30
	security and Cooperation in Europe (OSCE) in the economic and environmental dimension	. 148	30
XIV. AD	OPTION OF THE REPORT (agenda item 13)	. 149	30
<u>Annex I</u> :	Draft amendments to the UN Recommendations on the Transport of Dangerous Goods, Model Regulations (15 <sup>th</sup> revised edition) <sup>1</sup>		31
<u>Annex II</u> :	Draft amendments to the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria (4 <sup>th</sup> revised edition, as amended) <sup>1</sup>		32
<u>Annex III</u> :	Terms of reference of the correspondence group on the classification of mixtures		33
Annex IV:	Plan of action for the work to be undertaken on electronic data interchange		34

 $<sup>^1</sup>$  For practical reasons, this annex has been published in an addendum with the symbol ST/SG/AC.10/C.3/66/Add.1.

## I. ATTENDANCE

1. The Sub-Committee of Experts on the Transport of Dangerous Goods held its thirty-third session from 30 June to 9 July 2008, 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, Czech Republic, Finland, France, Germany, Italy, Japan, 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: Bulgaria, Ireland, Kenya, Republic of Korea, Romania, Slovakia and Switzerland.

4. Representatives of the United Nations Institute for Training and Research (UNITAR), the International Civil Aviation Organization (ICAO) and the International Atomic Agency (IAEA) were also present.

5. The following intergovernmental organizations were also represented: European Commission and Intergovernmental Organization for International Carriage by Rail (OTIF).

Representatives of the following non-governmental organizations took part in the 6. discussion of items of concern to their organizations: American Biological Safety Association (ABSA); Association of Hazmat Shippers, Inc. (AHS); British Fireworks Association (BFA); Compressed Gas Association (CGA); Council on Safe Transportation of Hazardous Articles (COSTHA); Dangerous Goods Advisory Council (DGAC); European Association of Automobile Suppliers (CLEPA); European Biosafety Association (EBSA); European Chemical Industry Council (CEFIC), European Cosmetic, Toiletry and Perfumery Association (COLIPA); European Council of the Paint, Printing Ink and Artists' Colour Industry (CEPE); European Industrial Gases Association (EIGA); European Metal Packaging (EMPAC); Federation of European Aerosol Associations (FEA); Global Express Association (GEA); International Air Transport Association (IATA); International Association for Soaps, Detergents and Maintenance Products (AISE); International Confederation of Container Reconditioners (ICCR); International Confederation of Drums Manufacturers (ICDM); International Confederation of Intermediate Bulk Container Associations (ICIBCA); International Confederation of Plastics Packaging Manufacturers (ICPP); International Council of Chemical Associations (ICCA); International Dangerous Goods and Containers Association (IDGCA); International Electrotechnical Commission (IEC); International Federation of Airline Pilots' Associations (IFALPA); International Fibre Drum Institute (IFDI); International Fireworks Association (IFA); International Organization for Standardization (ISO); International Paint and Printing Ink Council (IPPIC); International Tank Container Organization (ITCO); International Vessel Operators Hazardous Materials Association (VOHMA); Institute of Makers of Explosives (IME); Portable Rechargeable Battery Association (PRBA); Responsible Container Management Association of Southern Africa (RCMASA); Sporting Arms and Ammunition Manufacturers' Institute (SAAMI); US Fuel Cells Council (USFCC); World Nuclear Transport Institute (WNTI);

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

Documents: ST/SG/AC.10/C.3/65 (Provisional agenda) ST/SG/AC.10/C.3/65/Add.1 (List of documents)

Informal documents: INF.1, INF.2 (List of documents) and INF.12 (Provisional timetable)

7. The Sub-Committee adopted the provisional agenda and timetable prepared by the secretariat after amending it to take account of informal documents (INF.1-INF.87).

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

#### A. Additional test for 1.4S classification

Documents:	ST/SG/AC.10/C.3/2008/10 (IME)
	ST/SG/AC.10/C.3/2008/11 (Canada)
	ST/SG/AC.10/C.3/2008/44 (Germany)
	ST/SG/AC.10/C.3/2008/55 (United States of America)

Informal documents:	INF.13 and INF.27 (Canada)
	INF.38 (United Kingdom)
	INF.57 (IME)
	INF.66 (Germany)
	INF.79 (Report of the Working Group on Explosives)

8. Examination of these documents was assigned to the Working Group on Explosives, which met from 30 June to 3 July 2008 under the chairmanship of Mr. E. de Jong (Netherlands).

9. The outcome of the Working Group discussions was recorded under item 4 of the report (INF.79). The Sub-Committee noted that there was no consensus on the adoption of the additional test for 1.4S classification, but since work on this subject had been going on since 1998 and the current tests and criteria were considered not satisfactory, it agreed to adopt the tests in annex 1 of the report except that:

- (a) The first sentence of 16.7.1.3.4 was placed between square brackets and should be discussed again at the next session;
- (b) The words "adjacent material" in 16.7.1.4 (b) and "full perforation" in 16.7.1.4 (d) were placed between square brackets pending clarification of their meaning for interpretation of the test;
- (c) A list of examples of results (16.7.1.5) will have to be provided for the next session;
- (d) The list of entries to which the new special provision would apply was placed between square brackets.

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

Document: ST/SG/AC.10/C.3/2008/54 (United States of America)

Informal documents: INF.43 (United Kingdom) INF.79 (Report of the Working Group on Explosives)

10. Examination of these documents was assigned to the Working Group on Explosives.

11. The outcome of the Working Group discussions was recorded under item 5 of the report (INF.79). The Sub-Committee agreed that this item could be deferred to the next biennium.

## C. Desensitized explosives

Document: ST/SG/AC.10/C.3/2008/39 (Netherlands)

Informal document: INF.79 (Report of the Working Group on Explosives)

12. The majority of the Sub-Committee supported the principle of additional work on the issue of desensitized explosives. Some experts, however, expressed reservations on the proposal to create a new division for desensitized explosives, given the repercussions this would have for the body of regulations as a whole.

13. The Working Group on Explosives was invited to comment on this initial report by the informal working group on desensitized explosives, but not as a matter of priority, since the informal working group would have to hold more meetings in any event.

14. When considering the report of the Working Group, the Sub-Committee noted that the Working Group did not discuss the proposals contained in the report of the informal working group on desensitized explosives, and that more work will have to be carried out in accordance with the mandate decided by the Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals (GHS sub-Committee) (ST/SG/AC.10/C.4/26, para. 16).

15. It was agreed that the informal working group on desensitized explosives could meet during the next session in parallel to the Plenary session. In this respect, the question of working methods in relation to the GHS Sub-Committee was raised again, and it was agreed that, although progress reports could be submitted to the GHS Sub-Committee for information, there was no need to seek endorsement of interim results by the GHS Sub-Committee. As for hazards to health and the environment, where OECD plays the role of focal point for the GHS, proposals should be submitted to the GHS Sub-Committee after they have been adopted by the Sub-Committee of Experts on the Transport of Dangerous Goods (TDG Sub-Committee).

#### D. Miscellaneous proposals

Documents:ST/SG/AC.10/C.3/2008/2/Rev.1 (Australia) (Definition of phlegmatized)<br/>ST/SG/AC.10/C.3/2008/26 (Australia) (Special packing provisions for goods<br/>of Class 1)<br/>ST/SG/AC.10/C.3/2008/32 (Australia) (Classification as a consequence of<br/>Net Explosive Quantity (NEQ))<br/>ST/SG/AC.10/C.3/2008/41 (ICCA) (UN 3474)

Informal documents:	INF.44	(United Kingdom) (Comments on document ST/SG/AC.10/C.3/2008/26)
	INF.45	(ICCA) (Addendum to ST/SG/AC.10/C.3/2008/41)
	INF.22	(Austria) (Classification of airbags)
	INF.32	(Germany) (Classification table, default list for fireworks)
	INF.33	(Germany) (Definition of flash composition)
	INF.37	(United Kingdom) (Modifications to the time/pressure
		test for defining flash powders)
	INF.49	(Germany) (Paragraph 16.6.1.3.2 of the Manual of Tests and Criteria)
	INF.54	(United Kingdom) (Review of the UN Test Series 7)
	INF.70	(United States of America) (Compressed gas cylinders containing an actuating device)
	INF.79	(Report of the Working Group on Explosives).

16. Following the presentation and brief discussion of each of these documents, it was decided that the Working Group on Explosives should consider them in detail in the light of the comments made in plenary.

17. The Sub-Committee endorsed the recommendations by the Working Group (item 7 of the report, INF.79), as follows:

- (a) New definition for "phlegmatized" adopted (item 7 (a) (2) and annex 3 of the report) (see annex I);
- (b) Discussion on special provisions for goods of Class 1 deferred to the next session, pending submission of a new proposal by the United Kingdom (item 7 (b) of the report);
- (c) Issue raised by the expert from Australia recognized; it was noted that there is still to be learned on firework classification and that the proposal is premature at this stage (item 7 (c) of the report);
- (d) Revised entry for UN No. 3474, 1-HYDROXYBENZOTRIAZOLE MONOHYDRATE adopted (item 7 (d) and annex 3 of the report) (see annex I);
- (e) Answers to the questions by Austria regarding the interpretation of the provisions relating to the classification of airbags (see item 7 (e) of the report) endorsed; in addition, for question No. 2, the Sub-Committee clarified that although figure

16.6.1.1 addresses metallic fragments only, the projection of other fragments should also be taken into account; and for question 4, it was clarified that the amount of wire of strapping needed to hold the package depends on the number, size and arrangement of the packages or articles submitted to the test;

- (f) Decision on the proposal of Germany on the default list for fireworks (INF.32) postponed (item 7 (f) of the report);
- (g) Proposal on the time/pressure test for defining flash powders to be submitted by the expert from the United Kingdom (items 7 (g) and (h) of the report);
- (h) Amendment to 16.6.1.3.2 of the Manual of Tests and Criteria adopted (item 7 (i) and annex 3 of the report) (see annex II).
- (i) Additional work on the review of the Test Serie 7 to be carried out intersessionally (item 7 (j) of the report);
- (j) Comments on the proposal by the United States of America (INF.70) concerning compressed gas cylinders containing an actuating device to be provided to the expert from the United States as soon as possible so that an official proposal may be prepared for the December 2008 session (not for the July 2009 session as stated in item 7 (h) of the report).
- Informal document: INF.83 (Spain) (Clarification of classification of an explosive containing both more than 25 g pyrotechnic unit and more than 25 % flash composition)

18. Since this request for clarification was submitted late after experts on explosives had left, the expert from Spain was invited to submit this request to the next session if deemed necessary. It was noted that explosives containing more than 25 % flash composition should not be classified in division 1.3, and that fireworks which are not listed in the default table could be classified on the basis of tests.

## E. GHS related issues

- <u>Documents</u>: ST/SG/AC.10/C.3/2008/40 (ICCA) (Screening test for substances which may have explosive properties and consequential changes) ST/SG/AC.10/C.3/2008/43 (Germany) (Physical hazards; substances having explosive properties)
- Informal documents: INF.71 (Germany) (Additional remark on ST/SG/AC.10/C.3/2008/43) INF.42 (United Kingdom) (Classification of ammonium nitrate emulsions) INF.74 (Report of the Working Group on Explosives)

19. As these documents had also been included in the agenda of the GHS Sub-Committee, the question arose as to the respective mandates of the two Sub-Committees in regard to the work on physical hazards.

20. The expert from France recalled that the TDG Sub-Committee was acting as a focal point for physical hazards. He therefore considered that it could work independently, as OECD did for health and environmental hazards, while keeping the GHS Sub-Committee informed of its work. He was of the view that those documents should not be discussed by the GHS Sub-Committee; only the outcome of the TDG Sub-Committee's deliberations should be submitted in the form of proposals.

21. With regard to the proposal of Germany concerning substances having explosive properties, it was recalled that the Working Group on Explosives had already examined the issue (see informal document INF.45, thirty-first session, paragraph 15). In the light of the Sub-Committee's conclusions (ST/SG/AC.10/C.3/62, paragraph 19 (j)), the GHS Sub-Committee had referred the matter back to the Sub-Committee (ST/SG/AC.10/C.4/28, paragraph 10).

22. Several experts did not share the view of the expert from Germany that the tests in the Manual of Tests and Criteria applicable to the transport of packaged substances were not appropriate for determining intrinsic explosive properties. In their view, those properties could be evaluated using test series 1 to 5.

23. Examination of these documents was assigned to the Working Group on Explosives. After consideration of the report of the Working Group (INF.74, item 8), the Sub-Committee decided as follows.

24. There was general support for the ICCA proposal for a screening test and additional criteria for substances such as pharmaceuticals suspected to possess explosive properties for which carrying out current tests may be very hazardous and costly. Comments should be sent to ICCA which may wish to submit a proposal in the future (item 8 (a) of the report).

25. There was no support for the proposal of the expert from Germany in ST/SG/AC.10/C.3/2008/43 (and informal document INF.71) for altering the sequence of the test series to be performed for assessing explosive properties, and the expert from Germany withdrew her proposal (see also item 8 (b) of the report).

26. The Sub-Committee adopted the proposals of amendments to Figure 2.1.4 of the GHS concerning ammonium nitrate emulsions (item 8 (c) (INF.42) and annex 4 of the report), which should be transmitted to the GHS Sub-Committee for endorsement (see ST/SG/AC.10/C.4/2008/16).

## **IV. PERFORMANCE OF PACKAGINGS, INCLUDING IBCs** (agenda item 3)

## A. Permeation through the walls of plastic packagings

Document: ST/SG/AC.10/C.3/2008/45 (Germany)

Informal documents: INF.28 (Netherlands) INF.29 (Canada) INF.74 (Germany)

27. The Sub-Committee adopted the Canadian proposal to add a new sub-paragraph (c) to 4.1.1.2 specifying that packagings, including IBCs, should not allow permeation of the dangerous goods that could constitute a danger under normal conditions of transport (see annex I).

28. Most of the experts were not in favour of the solution put forward by the expert from Germany in ST/SG/AC.10/C.3/2008/45, which appeared to suggest that permeation was tolerable provided that steps were taken to evacuate dangerous vapours from the container and that information on the attendant dangers was given in the transport documents and on a warning sign. Besides, many experts were of the opinion that it was the consignor's responsibility to ensure that the packaging was compatible with the substance being transported.

29. The expert from Germany redrafted her original proposals to take account of the discussions, and proposed two alternatives consisting in adding a new sub-section 6.1.4.0 on permeation or in amending 6.1.4.8.1. The Sub-Committee adopted the first alternative (see annex I).

## **B.** Remanufactured large packagings

Informal document: INF.55 (France)

30. The amendments proposed to section 1.2.1 and paragraphs 4.1.1.1 and 6.6.1.2 to take account of remanufactured large packagings were adopted (see annex I).

# C. Period of use of packagings and IBCs for the transport of medical waste (UN No. 3291)

Informal document: INF.56 (France)

31. The French expert explained that 4.1.1.15, restricting the use of plastic packagings and IBCs to five years except as otherwise authorized by the competent authority, did not apply to infectious substances by virtue of 4.1.8.2. In view of the amendments to section 4.1.8 appearing in the 15th revised edition of the Recommendations, section 4.1.8 now applied only to Category A infectious substances and, accordingly, UN No. 3291 was now covered by regulation 4.1.1.15. That appeared to be an unintentional consequence of the amendments to section 4.1.8. Some experts did not agree with this point of view.

32. The Sub-Committee considered that the informal document had been submitted too late for it to be able to decide to revert to the previous situation.

## **D.** Cross bottling of composite IBCs

Document: ST/SG/AC.10/C.3/2008/28 (United Kingdom)

Informal documents:INF.4 and INF.31 (United Kingdom)INF.60 (ICCR)INF.61 (ICPP)INF.68 (ICIBCA)INF.69 (United States of America)

33. The Sub-Committee welcomed the results of the correspondence group led by the expert from the United Kingdom. Further draft amendments had been put forward in the informal documents, and it was decided to refer them to a working group for consideration, on the understanding that the progress which the correspondence group had made so far was not to be fundamentally challenged.

Informal document: INF.73 (Report of working group)

34. The Sub-Committee noted the consensus that had been reached concerning paragraphs (c) and (d) of informal document INF.73 and adopted the proposed amendments to paragraphs 6.5.2.4 and 6.5.4.1 (see annex I).

35. The Sub-Committee noted that no consensus had been reached concerning paragraph (b) (marking of IBC components) and (a) (definition of repaired IBC) of informal document INF.73. The proposed amendments to section 1.2.1 and to paragraph 6.5.2.2.4, including the insertion of a reference to paragraph 6.5.2.1.1 (b) and (c) in the new paragraph 6.5.2.2.4, were put to the vote and adopted by a large majority (see annex I).

## E. Pharmaceutical aerosols

Document: ST/SG/AC.10/C.3/2008/38 (United Kingdom)

Informal documents: INF.25 (Sweden) INF.25/Rev.1 (Sweden and FEA)

36. The proposal to amend paragraph 6.2.4.3 submitted in informal document INF.25/Rev.1 was adopted.

## V. LISTING, CLASSIFICATION AND PACKING (agenda item 4)

### A. Cells and batteries

#### 1. Marking on the outside case of lithium ion batteries

Document: ST/SG/AC.10/C.3/2008/21 (IFALPA)

Informal document: INF.82/Rev.1 (IFALPA)

37. IFALPA proposed a requirement to indicate the watt-hour rating on all lithium ion batteries, not just those that are exempt from regulation under special provision 188, in order to avoid confusion between batteries that are unmarked because they were manufactured prior to 1 january 2009 and those that are unmarked because they are regulated.

38. A member of the secretariat pointed out that the problem would no longer arise after 1 January 2011, the expiry date of the transition period, since all the batteries that were exempt under special provision 188 would then have to be marked. Moreover, since the proposed provision would not take effect in international regulations before 1 January 2011, it would not solve the problem during the period in which it actually occurred.

39. The representative of IFALPA prepared a revised proposal for a new special provision 348 applicable to UN Nos 3480 and 3481 which was adopted (see annex I).

## 2. Transport of nickel-metal hydride batteries

Document: ST/SG/AC.10/C.3/2008/37 (Germany)

Informal documents: INF.21 (VOHMA) INF.41 (PRBA, RECHARGE, EPBA)

40. The proposal from Germany followed discussions on document ST/SG/AC.10/C.3/2007/45 submitted to the previous session concerning a maritime accident involving a container in which nickel-metal hydride batteries, which were exempted from regulation by special provision 304, had been stowed near a source of heat.

41. Several experts did not support the principle of imposing documentation or marking requirements on goods that were not subject to regulation. They considered that these measures would be difficult to apply in a multimodal transport chain if they were only applicable to maritime transport.

42. The proposal was put to the vote and adopted with minor amendments (see annex I).

## **3.** Testing of rechargeable lithium cells and batteries

<u>Document</u>: ST/SG/AC.10/C.4/2008/57 (PRBA)

43. The proposal not to require rechargeable cells or batteries in fully discharged state to be tested under 38.3.3 (b) and (c) of the Manual of Tests and Criteria was adopted (see annex II).

## 4. Testing of large rechargeable lithium batteries and components

<u>Document</u>: ST/SG/AC.10/C.4/2008/46 (PRBA)

Informal documents: INF.35 (Japan) INF.34 (United States of America)

44. The Sub-Committee agreed that the applicable tests and criteria should be reviewed in the light of the exceptional growth of the market for lithium cells and batteries and the new technologies being implemented in the field. It therefore accepted the proposal of the expert from the United States of America to set up an informal working group from 11 to 13 November 2008 on the issue, with the following mandate:

- (a) Review the testing requirements for lithium batteries (tests 1 to 8);
- (b) Assess the differences between small and large batteries and the applicable testing requirements; and
- (c) Assess the relevance of current transport requirements and propose amendments if necessary.

45. The representative of PRBA said that he would lead a correspondence working group to consider the testing of large format batteries.

# 5. Transport of large used or spent cells or batteries for inspection, testing, disposal or recycling

Informal document: INF.51 (Germany)

46. The Sub-Committee agreed that provision should be made for transport requirements for large used batteries and invited the expert from Germany to submit a proposal for the following session.

#### 6. Air transport of lithium batteries

Informal document: INF.64 (ICAO)

47. The Sub-Committee noted that ICAO had developed specific packing instructions for air transport of lithium batteries (Packing Instructions 965, 966, 967 and 968) for incorporation in the 2009-2010 edition of its Technical Instructions.

## B. Fuel cells

#### 1. Fuel cell engines, fuel cell vehicles

Document: ST/SG/AC.10/C.3/2008/34 (US Fuel Cell Council)

Informal document: INF.78 (US Fuel Cell Council)

48. The Sub-Committee adopted the amendments to the entry for UN 3166 based on the proposal from the US Fuel Cell Council with changes (see annex I).

#### 2. Amendment to UN 3468 (Hydrogen in a metal hydride storage system)

Document: ST/SG/AC.10/C.3/2008/35 (US Fuel Cell Council)

Informal document: INF.72 (ISO)

49. The Sub-Committee took note of the proposal to include a specific packing instruction for UN 3468, and supported it in principle. However, it considered that the proposal needed some drafting improvements. The packing instruction should be drafted along the lines of the other packing instructions, and the provisions on the construction of packagings should be included in Part 6. The ISO 16 111 draft standard referred to should be verified to determine whether it met an acceptable safety level.

50. The representative of ISO agreed to provide the final draft standard to the members of the Sub-Committee as soon as it is available.

#### C. Miscellaneous

## 1. Ethylene oxide (UN 1040) sterilization units

Document: ST/SG/AC.10/C.3/2008/3

Informal document: INF.47 (Belgium)

51. The proposal to establish alternative provisions for the transport and distribution of ethylene oxide for medical purposes, in small quantities contained in glass ampoules, was adopted with a number of amendments (see annex I, special provision 342).

## 2. IBC packing instructions for solids

Document: ST/SG/AC.10/C.3/2008/8 (United Kingdom)

52. The proposed amendments to instructions IBC04 to IBC08 were adopted, with deletion of the additional requirement for IBC04 and IBC05, since the IBCs referred to in paragraph 4.1.3.4 are not authorized by these instructions (see annex I).

## 3. Petroleum sour crude oil

Document: ST/SG/AC.10/C.3/2008/12 (Canada)

53. The proposed new entries for petroleum sour crude oil were adopted, but only for crude oil containing hydrogen sulphide (see annex I).

54. Some experts would have liked - for practical classification purposes - a specific reference to the concentrations of hydrogen sulphide at which crude oil is classified in these categories.

## 4. Iodine, raw

Document: ST/SG/AC.10/C.3/2008/19 (Germany)

55. A number of delegates were not convinced, on the basis of the data supplied, that iodine, raw was corrosive but the decision was eventually taken to add a new entry for this substance, without the word "RAW" in the proper shipping name, assigning it class 8 and packing group III, on the basis of the known effects on humans (see annex 1).

# 5. Package requirements for dangerous goods which may evolve a hazard if not effectively sealed

Document: ST/SG/AC.10/C.3/2008/27 (Australia)

56. Some experts thought that the proposed paragraph 4.1.1.7.2, contained in the IMDG Code, was too vague, since it could apply to virtually all dangerous goods. Others noted that there was no definition of "hermetically sealed".

57. The expert from Australia amended the proposal, making it a recommendation (as in the IMDG Code) rather than a requirement (use of "should" rather than "shall"). The amended proposal was put to the vote but was not adopted.

## 6. Packing instruction for toxic by inhalation liquids

Document: ST/SG/AC.10/C.3/2008/52 (United States of America)

58. The proposal to require packing instruction P602 rather than P001 for UN Nos. 1143, 1695, 1752, 1809, 2337, 2646 and 3023, since these are toxic by inhalation liquids, was adopted (see annex I).

## 7. Lithium hypochlorite, dry and mixtures (UN No. 1471)

Document: ST/SG/AC.10/C.3/2008/56 (United States of America)

59. The proposal to add a new Packing Group III line was adopted (see annex I).

## 8. Packing Instruction IBC 520

## Document: ST/SG/AC.10/C.3/2008/51 (ICIBCA)

60. Several experts considered that ICIBCA had not presented enough information to justify authorizing 31H2 IBCs for the transport of UN No. 3109 Peroxyacetic acid, stabilized, not more than 17%. The proposal was put to a vote and not adopted.

## 9. Assignment of proper shipping names

## Informal document: INF.16 (ICAO)

61. The representative of ICAO introduced the report of an *ad hoc* ICAO working group on an accident involving an exploding aluminium gas cylinder filled with 99.995% ethyl chloride containing traces of 1,1,1 - trichloroethane (20 ppm) and trichloroethylene (30 ppm) with an overpressure of 20 bar of helium. The goods were being transported as "Liquefied gas, flammable, n.o.s. (Trichloroethylene and Ethyl Chloride mixture)", UN No. 3161, and as a result the provisions applying to UN No. 1037, ethyl chloride, which *inter alia* prohibit the use of aluminium alloy cylinders, had not been respected.

62. Several experts pointed out that a 99.995% concentration was a very high degree of purity and could hardly be considered a mixture, despite the presence of helium. Others said that tiny traces of another element could alter the properties of a substance, and if such traces resulted in a different risk the use of an n.o.s. designation was appropriate.

63. Other experts pointed out that the problem was not basically one of classification but rather one of applying provisions. Special packing provision "z" applicable to n.o.s. entries in Packing Instruction 200 made it plain that the materials used in pressure receptacles must be compatible with the contents. Whether the goods were transported under UN No. 1037 or an n.o.s. entry, the filler was responsible for checking compatibility, and in the case under discussion the provisions applying to UN No. 1037 and ISO standard 11 114-1:1997 both clearly indicated that aluminium was fundamentally incompatible with ethyl chloride.

64. Since the wording of the Model Regulations concerning the classification of mixtures of several dangerous substances or containing traces of dangerous substances did not seem entirely clear, the Sub-Committee accepted the ICAO proposal to set up a correspondence group led by the United States of America. The mandate of this group is reproduced in annex 3. Experts, observers and organizations wishing to participate are invited to contact the United States delegation (duane.pfund@dot.gov).

## **10.** Editorial correction to figure 2.4.1

## Informal document: INF.50 (Germany)

65. The Sub-Committee agreed that there was an error in box 1 of the English version of figure 2.4.1, and that the word "deflagration" should be replaced by "detonation".

## 11. Correction to the draft amendments adopted at the thirty-second session

Informal document: INF.59 (Secretariat)

66. The Sub-Committee noted that numbers 3487 and 3488 had been assigned to the same substance in two different packing groups (see ST/SG/AC.10/C.3/64) when only one should have been used. The proposed renumbering was adopted (see annex I)

#### 12 Substances which are toxic by inhalation

Document: ST/SG/AC.10/C.3/2008/49 (Netherlands)

Informal documents: INF.8 (Netherlands) INF.36 (ICCA)

67. The Sub-Committee expressed appreciation for the further work done by the Netherlands expert on the identification of substances which are toxic by inhalation, and took note of the extra information supplied by ICCA. It invited all delegations to check the data and supply any further information available to the Netherlands expert so that he could propose a rational approach to transport conditions for consideration at the following session or in the near future.

#### 13. Packing instruction P200

Document: ST/SG/AC.10/C.3/2008/16 (Germany)

Informal documents: INF.53 (EIGA) INF.76 (Germany, EIGA, CGA)

68. The proposal to amend provisions "k" and "q" in paragraph (4) of packing instruction P200 contained in informal document INF.76 was adopted with some drafting changes (see annex I).

#### 14. Chrysotile

<u>Document</u>: ST/SG/AC.10/C.3/2008/60 (IDGCA)

Informal document: INF.6 (IDGCA)

69. Several experts said that they were not in favour of adding a separate entry from white asbestos for chrysotile and chrysotile fibre, because that type of asbestos was subject to the same restrictions or regulations as other types of asbestos in their countries.

70. It was pointed out that the proposal amounted to allowing the use of bags 5H2 for packing. Rather than adding a new specific entry, the question of packing permitted for UN 2590 could be dealt with through a special packing provision.

71. The representative of IDGCA said that he would prepare a new proposal for the following session.

## **15.** Special provision 274

<u>Document</u>: ST/SG/AC.10/C.3/2008/25 (CEFIC)

Informal document: INF.3 (CEFIC)

72. The Sub-Committee noted with satisfaction the work undertaken by CEFIC to identify the reasons for the discrepancies between RID/ADR/ADN and the Model Regulations in regard to the assignment of special provision 274. That work had already led the RID/ADR/ADN Joint Meeting to remove special provision 274 from certain entries in RID, ADR and ADN in order to harmonize them with the Model Regulations. However, the document proposed adding the special provision to certain entries to which it had not been assigned in the Model Regulations, as this was considered important by the RID/ADR/ADN Joint Meeting.

73. The proposals made by CEFIC were entrusted to a working group which met during the lunch breaks, under the chairmanship of the Vice-Chairman. However, the group was not able to reach agreement, as some delegations considered that the assignment of special provision 274 to entries in which it had not been included should be justified on a case-by-case basis.

74. Both documents thus remained on the Sub-Committee's agenda, and the experts were invited to submit justifications to CEFIC.

#### **16.** Exceptions for certain articles containing Division 2.2 gases

Document: ST/SG/AC.10/C.3/2008/53 (United States of America)

Informal documents: INF.23 (FEA) INF.77 (United States of America)

75. The Sub-Committee adopted the proposal to add a new paragraph 2.2.2.4 as submitted in informal document INF.77 (see annex I).

#### VI. LIMITED QUANTITIES (MULTIMODAL HARMONIZATION) (agenda item 5)

Document: ST/SG/AC.10/C.3/2008/17 (France)

Informal documents: INF.9 (AISE, CEPE) INF.14 (IATA) INF.75 (Working group)

76. Consideration of the proposals was assigned to a working group which met during the lunch breaks, under the chairmanship of the Vice-Chairman. The text proposed by the group, reproduced in informal document INF.75, was adopted (see annex I). The minimum size of the proposed marking is to be reviewed at the next session.

77. The representative of ICAO said that her organization would examine those texts in November 2008, and submit its conclusions and any proposals to the Sub-Committee at its following session.

# VII. ELECTRONIC DATA INTERCHANGE (EDI) FOR DOCUMENTATION PURPOSES (agenda item 6)

Informal documents:INF.39 (United Kingdom)INF.46 (IATA and VOHMA)INF.65 (Secretariat)INF.87 (Report of the lunchtime working group on EDI)

78. The Sub-Committee noted with interest the activities undertaken by IATA and VOHMA to identify the data elements required for the electronic transmission of information on dangerous goods transport.

79. To that end, IATA cooperates with the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) and the World Customs Organization.

80. VOHMA's work is essentially based on the provisions applicable in North America (CFR49, Canadian regulations and ICAO and IATA regulations). The results of its work are available on its website at <u>www.vohma.com</u> and could be extended to RID/ADR/ADN.

81. The Sub-Committee noted that the RID/ADR/ADN Joint Meeting had also set up a working group on telematics for inland transport in Europe. The aim is not only to define data elements in order to replace paper documentation by electronic documentation, but also to study ways of transmitting that data to emergency services and supervisory bodies, detecting accidents, enabling geographical positioning of vehicles transporting dangerous goods, etc.

82. The Sub-Committee noted that one of the obstacles to the use of electronic data interchange was the fact that the conventions currently in force did not necessarily recognize the legal validity of electronic documents and electronic signatures. It noted with satisfaction the adoption by the UNECE Inland Transport Committee of an Additional Protocol to the Convention on the Contract for the International Carriage of Goods by Road (CMR), which would enable the legalization of electronic documents used in international road transport.

83. The Vice-Chairman was invited to hold a meeting with interested experts during the lunch breaks to develop a plan of action for the work to be undertaken in that area in the forthcoming biennium. This report was issued as informal document INF.87 and the proposed plan of action was adopted (see annex IV).

#### VIII. MISCELLANEOUS PROPOSALS OF AMENDMENTS TO THE MODEL REGULATIONS ON THE TRANSPORT OF DANGEROUS GOODS (agenda item 7)

#### A. Gases

1. Aerosols (UN No. 1950) and small receptacles containing gas (UN No. 2037)

Document: ST/SG/AC.10/C.3/2008/1 (Switzerland)

Informal document: INF.24 (FEA)

84. The Sub-Committee adopted a new special provision for UN Nos. 1950 and 2037 clearly indicating that 6.2.4 is applicable (see annex I).

#### 2. Packing instruction P200 (4)

<u>Document:</u> ST/SG/AC.10/C.3/2008/13 (EIGA)

85. The proposal to amend the seventh paragraph of packing provision "k" of packing instruction P200, paragraph (4), was adopted (see annex I).

#### **3.** Pressure relief devices for MEGCs

<u>Document</u>: ST/SG/AC.10/C.3/2008/14 (EIGA)

86. The proposal to amend 6.7.5.4.1 was adopted (see annex 1).

## 4. Marking of refillable UN pressure receptacles

<u>Document</u>: ST/SG/AC.10/C.3/2008/15 (EIGA)

87. The Sub-Committee noted that practices in regard to the marking of bundles of cylinders were different in Europe and in North America, and the representatives of EIGA and CGA agreed to work together intersessionally to deal with the interpretation of the provisions on marking in 6.2.2.7.2 and 6.2.2.7.3 in the case of bundles of cylinders.

#### 5. Gas cartridges

Document: ST/SG/AC.10/C.3/2008/18 (France)

88. The Sub-Committee adopted amendments to Chapter 6.2 to indicate that the provisions of 6.2.1, 6.2.2 et 6.2.3 do not apply to aerosol dispensers, gas cartridges or fuel cell cartridges (see annex I).

### 6. Ultrasonic examination

Document: ST/SG/AC.10/C.3/2008/22 (ISO)

89. The Sub-Committee adopted the proposal to allow the hydraulic pressure test to be replaced by ultrasonic examination carried out in accordance with the appropriate ISO standards (see annex I).

90. As to checking the internal condition using ultrasonic examination, the representative of ISO explained that this was desirable in the case of cylinders used to transport high-purity gases so as to avoid contamination if the internal condition is checked by visual inspection after the valve has been removed. As several experts were not in favour of the principle of checking the internal condition using ultrasonic examination, the representative of ISO was requested to provide further explanations on the meaning of the last sentence of the proposed Note 3, which was not adopted.

#### **B.** Open cryogenic receptacles

Document: ST/SG/AC.10/C.3/2008/20 (United Kingdom)

91. The proposals from the United Kingdom concerning open cryogenic receptacles were adopted with some changes (see annex I). Since some experts considered that the upper limit on capacity of 450 litres was too high, this value was placed in square brackets.

## C. Tanks

## 1. Paragraph 6.7.2.15 (Covers to protect relief devices)

Document: ST/SG/AC.10/C.3/2008/4 (Spain)

Informal document: INF.18 (Spain)

92. Several experts considered that the proposal to amend 6.7.2.15 was not necessary, as 6.7.2.15.2 did in fact provide that arrangements should be made to protect relief devices, while 6.7.2.15.1 required that such devices be so arranged as to ensure that the escaping vapour is discharged unrestrictedly. Protective devices should be designed so as to ensure compliance with both paragraphs.

93. The expert from Spain said that he would prepare a new proposal, and he was invited to discuss the issue with the experts who had expressed an interest in the subject.

## 2. Amendments to paragraphs 6.7.2.6 and 6.7.3.6

Document: ST/SG/AC.10/C.3/2008/5 and -Add.1 (Spain)

Informal document: INF.19 (Spain)

94. The proposals aimed at ensuring the safety of tanks in regard to the leakproofness of manhole covers, in particular in the event of the tank overturning, elicited the interest of many experts, and the expert from Spain said that he would prepare a new proposal taking comments into account.

## 3. UN portable tank and MEGC identification plates

### Document: ST/SG/AC.10/C.3/2008/7 (Canada)

95. The Sub-Committee unanimously adopted, subject to some drafting changes, the proposals from Canada for a requirement to mark the UN packaging symbol on the identification plates of UN portable tanks and MEGCs and to clarify the presentation of the specific information required to be marked, except for the proposal on the marking of the owner's name, which was withdrawn (see annex I).

96. Concerning transitional measures, the Sub-Committee adopted the first option, i.e. that the marking requirements would not apply mandatorily to portable tanks and MEGCs manufactured before 1 January 2012 (see annex I).

97. This decision does not affect the decision taken at the last session regarding the transition period for "S" marking.

#### 4. Use of fusible elements on portable tanks for organometallic substances

Document: ST/SG/AC.10/C.3/2008/26 (ICCA)

98. The proposals of amendments to 6.7.2.10.1 and 6.7.2.8.4 were adopted (see annex I).

#### 5. Bottom closing devices for portable tanks for Packing Group I solids

Document: ST/SG/AC.10/C.3/2008/31 (Australia)

99. The proposal of amendments to 6.7.2.6.2 (a) was adopted (see annex I).

#### 6. Protection of shell and service equipment on portable tanks

#### Document: ST/SG/AC.10/C.3/2008/47 (Australia)

100. The proposal aimed at amending 4.2.1.2 and 6.7.2.5.1 in order to guarantee adequate protection of the shell of portable tanks and service equipment during handling and stowage operations, in particular against damage resulting from vertical impact.

101. Several experts considered that the current text already required adequate protection during handling operations, and the proposal put to the vote was not adopted.

## **D.** Fumigated cargo transport units

Document: ST/SG/AC.10/C.3/2008/19 (United Kingdom)

Informal documents: INF.10 (VOHMA) INF.26 (Sweden) INF.52 (EIGA) INF.63 (Belgium) INF.84 (Working group)

102. After discussion of the proposed revised provisions applicable to fumigated cargo transport units (UN No. 3359), the expert from the United Kingdom was invited to lead a lunch time working group and to prepare a revised proposal, which was submitted to the Sub-Committee as informal document INF.84.

103. The Sub-Committee adopted the texts for section 5.5.1 (renumbered 5.5.2) proposed in INF.84, except that the figure 5.5.1 should remain the same as in the current Model Regulations. A revised proposal for section 5.5.2 (renumbered 5.5.3) would be submitted for the next session.

# E. Genetically modified micro-organisms and organisms or living modified organisms (LMOs)

Document: ST/SG/AC.10/C.3/2008/29 (EBSA)

104. EBSA proposed to revise the current provisions concerning genetically modified microorganisms and organisms in order to take full account of the terminology of the Cartagena Protocol on Biosafety, which applies to "Living modified organisms (LMOs)". EBSA also proposed to revise provisions applicable to the transport of UN 3245.

105. Some experts felt that the Model Regulations should not address the transport of such organisms or micro-organisms when they do not meet the other criteria for dangerous goods in the Model Regulations. They felt that there was no scientific evidence that such organisms are dangerous goods and could cause a problem during transport. Some experts felt that UN 3245 should be removed from the Model Regulations.

106. Other experts felt on the contrary that provisions for the transport of such goods should be kept in the Model Regulations because:

- (a) Some genetically modified organisms or micro-organisms were known to cause a danger to the environment if they were disseminated inavertently and if they contaminated other living resources; and
- (b) Even though some countries authorized the dissemination of some genetically modified organisms/micro-organisms because they considered that they did not cause any danger to the environment, there was currently no general worldwide consensus in this respect and it was up to each country to decide. Therefore they felt that it was appropriate to include provisions in the Model Regulations at least for those countries which wish to regulate transport to avoid accidental dissemination.

107. The Sub-Committee considered the various proposals by EBSA and the following comments were made.

108. Some experts were not convinced that it would be wise to replace the terminology "GMOs" and "GMMOs" by "LMOs" because they felt that the definition of LMOs was more restrictive than that of GMOs/GMMOs. Nevertheless, if these changes were to be made for the purpose of consistency with the Cartagena Protocol, the consistency with the definitions of the Cartagena Protocol should be carefully checked.

109. The appropriate location of definitions and assignment provisions (chapters 2.6 and 2.9) should be checked to avoid duplications. References to European directives in applicable provisions were not appropriate.

110. The cases of toxic organisms and plant pathogens might have to be considered.

111. The question of living modified animals should be addressed in Part 2 rather than in a packing instruction.

112. The question of transport of GMOs in bulk containers or in tanks should also be considered.

113. EBSA was invited to consider the comments made and to prepare a new proposal as deemed appropriate.

#### F. Miscellaneous

## 1. Identification of approval country in marking

Document: ST/SG/AC.10/C.3/2008/36 (Canada)

Informal document: INF.5 (Canada)

114. The expert from Canada recalled that the distinguishing signs of motor vehicles in international traffic stipulated under the Geneva Convention on Road Traffic of 1949 and the Vienna Convention on Road Traffic of 1968 had not been assigned in some countries, in particular those that were not contracting parties to the conventions. Some countries had opted for the ISO 3166 coding system, which covered more countries, for marking UN-certified packaging.

115. Many experts were not in favour of replacing the current system by referring to an ISO code, as this would have major practical implications. Moreover, there were two ISO codes, a two-character code and a three-character code, and different codes were sometimes assigned to different territories.

116. It was suggested that countries that preferred to use an ISO code rather than the distinguishing sign of motor vehicles in international traffic should propose to amend the conventions or propose an alternative system for identifying country.

117. The expert from Canada said that he would check which countries used a code different from that currently prescribed, and the Sub-Committee agreed to discuss the issue when it had more information before it.

# 2. Corrections to the 15<sup>th</sup> revised edition of the Recommendations on the Transport of Dangerous Goods, Model Regulations

Document: ST/SG/AC.10/C.3/2008/33 (Australia)

118. The Sub-Committee agreed that the proposed corrections should be made and requested the secretariat to include them in a corrigendum.

## **3.** Representation of the Excepted Quantities Mark

Informal document: INF.15 (IATA)

119. The Sub-Committee noted that according to paragraph 3.5.4.3 and Figure 3.5.1, the Excepted Quantities Mark could be either a rectangle or a square, when the original intent was to require a square. It was agreed to amend the figure accordingly (see annex I).

## 4. Revision of paragraph 7.1.3.2.3

Document: ST/SG/AC.10/C.3/2008/61 (Australia)

120. Since some experts considered that the list of alkali metal and alkaline earth metal nitrates proposed by the expert from Australia was not comprehensive, and since some experts considered that it was not necessary to provide such a list, the expert from Australia withdrew his proposal.

# 5. Entry for total quantity of dangerous goods on multimodal dangerous goods form

<u>Documents</u>: ST/SG/AC.10/C.3/2008/6(VOHMA) ST/SG/AC.10/C.3/2008/50 (Canada)

121. The Sub-Committee confirmed that it was not the intent of paragraph 5.4.1.5.1 of the Model Regulations to require the indication in the transport document, of the number, type and capacity of each inner packaging within the outer packaging of a combination packaging. Although some experts considered that there was no need to provide explanations in regulatory text since 5.4.1.5.1 referred to packages, the Sub-Committee agreed to add a note to 5.4.1.5.1 to clarify this issue and avoid misinterpretations by competent authorities or transport operators (see annex I).

122. With respect to paragraph 7 of the Canadian proposal, some delegations felt that the example of a multimodal dangerous goods form should no longer be included in the Model Regulations because it had not been adopted for air transport and it was not really used in practice for multimodal transport due to documentation requirements of conventions dealing with the contract of carriage such as COTIF, CMR, the IATA dangerous goods note etc. Other noted that it had been adopted by IMO as a FAL form and that it was widely used for maritime

transport and could be attached to the documentation required for other modes of transport, thus facilitating multimodal transport operations. This issue could be brought to the attention of the United Nations Centre for Trade Facilitation and Electronic business UN/CEFACT which had originally developed this form (Recommendation No. 11) for the purpose of transport facilitation.

## 6. Training provision, records of training

Document: ST/SG/AC.10/C.3/2008/23 (COSTHA)

Informal document: INF.85 (COSTHA)

123. The Sub-Committee adopted amendments to paragraphs 1.3.3 and 1.4.2.4 as presented in informal document INF.85 (see annex I).

## IX. HARMONIZATION WITH THE INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA) REGULATIONS FOR THE SAFE TRANSPORT OF RADIOACTIVE MATERIAL (agenda item 8)

Document: ST/SG/AC.10/C.3/2008/64, paras 61-71 and annex I

Informal documents: INF.67 and INF.80 (Secretariat)

124. The Sub-Committee noted that the IAEA had adopted new requirements to be included in the 2009 version of the IAEA Regulations and that the secretariat would prepare proposals for alignment of the Model Regulations for the December 2008 session.

125. The Sub-Committee also noted that the IAEA had revised the format of its Regulations in order to bring it in line with that of the Model Regulations. The IAEA had also initiated work on the revision of the provisions concerning radioactive material possessing other hazards. The texts adopted by the Sub-Committee at its last session had been brought to the attention of the IAEA Transport Safety Standards Committee (TRANSCC 16) for comments before final adoption at the next session

126. The Sub-Committed noted that the IAEA had not yet published the outcome of its work on security provisions related to transport of radioactive material, but that a Security Series Guideline was under preparation and was likely to contain recommendations as regards threshold values to be considered for treating radioactive material as "high consequence dangerous goods".

## X. GLOBAL HARMONIZATION OF TRANSPORT OF DANGEROUS GOODS REGULATIONS WITH THE UN MODEL REGULATIONS (agenda item 9)

## **Implementation of the GHS for transport**

Informal document: INF.48 (Germany and United Kingdom)

127. The Sub-Committee took note of the comments transmitted by the experts from Germany and the United Kingdom to UNITAR concerning a draft "Basic GHS course". It also noted that additional comments had been provided by the secretariat.

128. The representative of UNITAR informed the Sub-Committee that the final version of this course had not yet been released, but that it would be used in a pilot project for testing. This course is mainly intended for training in relation to the implementation of the GHS for supply and use of chemicals. She also informed the Sub-Committee that UNITAR was preparing another publication entitled "Understanding the GHS: A companion to the Purple Book (second revised edition)".

129. The Sub-Committee recalled that application of the existing and regularly updated provisions of the Model Regulations on the Transport of Dangerous Goods formed an important part of the implementation of the GHS, and endorsed the view of the experts from Germany and the United Kingdom that this should also form part of any material for training and support of the implementation of the GHS. Therefore it invited UNITAR, as GHS focal point for capacity building, to promote the implementation of the overall GHS implementation. The Sub-Committee considered that it would be useful to obtain some sort of feedback on the success of delivering the GHS training courses, in particular as regards potential problems identified in the transport sector, as it could provide support in this respect.

130. The representative of UNITAR said that feedback would be provided to both subcommittees as deemed appropriate.

## XI. GUIDING PRINCIPLES FOR THE MODEL REGULATIONS (agenda item 10)

131. As no document had been submitted, this item was not discussed.

# XII. ISSUES RELATING TO THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS) (agenda item 11)

## A. Implementation of the GHS in countries

Document: ST/SG/AC.10/C.3/2008/30 (Australia)

132. As suggested by the GHS Sub-Committee, the Sub-Committee considered the draft terms of reference for an informal inter-sessional working group on GHS implementation and endorsed its terms of reference, noting in particular that if transport-related issues were identified by the group, they would be referred to the TDG Sub-Committee. The Sub-Committee considered that representatives of non-governmental organizations should also be authorized to participate.

## **B.** Flammable liquids (sustained combustion)

Document: ST/SG/AC.10/C.3/2008/42 (Germany)

133. The Sub-Committee agreed that NOTE 2 to section 2.6.2 of the GHS had to be amended because test L.2 of section 32 of the Manual of Tests and Criteria is relevant only for substances with a flash point of more than 35 °C and not more than 60 °C. It should not be applied in the case of flammable liquids of category 4 for which no equivalent test method concerning sustained combustibility had been developed.

134. The Sub-Committee did not agree however that such liquids with a flash point of more than 35  $^{\circ}$ C and not more than 60  $^{\circ}$ C meeting the criteria for non-sustained combustibility would have to be classified in category 4, since they were simply considered as non flammable liquids for certain regulatory purposes.

135. Should experts or organizations wish to apply similar exemptions on the basis of non sustained combustion for category 4 liquids for some regulatory purposes, a relevant proposal should be made to the GHS Sub-Committee which might then require the Sub-Committee to develop suitable test methods.

## C. Corrosivity criteria

Document: ST/SG/AC.10/C.3/2008/48 (Netherlands)

Informal documents: INF.11 (AISE) INF.17 (Netherlands)

136. The expert from the Netherlands clarified that he did not intend to extend the scope of Class 8 of the Model Regulations to substances which are irritating to skin. He said that the purpose of his proposal was to rationalize the current Class 8 classification criteria in order to better take account of the GHS text.

137. Most experts considered that the current criteria for Class 8 were consistent with the GHS building block approach. Nevertheless there was support for additional work, in particular for classification of mixtures and solutions.

138. Since several delegations said that they had not had sufficient time to consider INF.17 in detail, they were invited to provide comments to the expert from the Netherlands as soon as possible so that a new proposal could be prepared for the next session.

139. A member of the secretariat raised the question whether it would not be possible, for hazards to health and to the environment, to refer directly to the relevant parts of the GHS rather than duplicating text, in the same way as this is done for physical hazards by reference to the Manual of Tests and Criteria. Several experts supported this approach.

## **D.** Corrections to section 2.9.3 of the Model Regulations

Informal document: INF.58 (Secretariat)

140. The Sub-Committee noted that the current text of section 2.9.3 differed editorially from the corresponding text of the GHS concerning criteria for hazards to the aquatic environment. The secretariat was invited to publish the proposed corrections as an official corrigendum to the  $15^{\text{th}}$  revised edition of the Recommendations.

## **XIII. OTHER BUSINESS** (agenda item 12)

### A. Requests for consultative status

Informal documents: INF.7 (IFA) INF.40 (BFA)

141. The Sub-Committee granted consultative status to the International Fireworks Association (IFA).

142. The request of the British Fireworks Association (BFA) was supported by the experts of the United Kingdom and Sweden but, when put to the vote, was not accepted. Several experts considered that national associations should not be represented unless their branch of activity was not already represented by international organizations that could coordinate the industry's position on a wide geographical scale.

## B. 2008 Emergency Response Guidebook

Informal document: INF.20 (Canada and United States of America)

143. The Sub-Committee thanked the experts from the United States and of Canada for having provided copies of the 2008 Emergency Response Guidebook in English, French and Spanish. Electronic versions are available free of charge on internet at the addresses indicated in INF.20

### C. Showing changes in the printed version of the UN Model Regulations

Informal document: INF.30 (United Kingdom)

144. A member of the secretariat recalled that this issue had been discussed during the previous biennium. Showing changes in printed versions of the UN Model Regulations was likely to increase significantly the workload of the UNECE Transport Division as well as that of translation services and would generate extra costs for the United Nations. Therefore this should first be approved by the Economic and Social Council after submission of the corresponding programme budget implication. As a compromise solution, the secretariat had made available on its website a track change version of the English version of the 15<sup>th</sup> revised edition of the UN Recommendations which had to be prepared anyway as reference for translation purposes. It was also recalled that the secretariat published as an official document in all UN official languages and every two years the detailed list of changes to the previous version of the Model Regulations.

145. The expert from the United Kingdom clarified that an indication of changes to text could be made in the margin of the Regulations.

146. The Sub-Committee considered that there was no need for the secretariat to print a version showing the changes if this was likely to require additional resources and delay the preparation of the publication.

# **D.** Developing and maintening experts on the regulations applicable to safe, secure and efficient transport of dangerous goods

Informal document: INF.62 (COSTHA)

147. The Sub-Committee expressed its appreciation for the activities initiated by COSTHA and the Department of Transportation of the United States for enhancing the image of the hazardous material dangerous goods professional. Many experts felt than such activities should be carried out as well in other parts of the world, notably in Europe, in order to maintain an appropriate level of expertise in the field of transport of dangerous goods safety in the industry and in the administrations.

# E. Review of the commitments of the Organization for Security and Cooperation in Europe (OSCE) in the economic and environmental dimension

## Informal document: INF.81 (secretariat)

148. The Sub-Committee took note of a report on transport of dangerous goods which was submitted by the UNECE secretariat to the 16<sup>th</sup> OSCE Economic and Environmental Forum, 19-21 May 2008, in Prague (Czech Republic).

## **XIV. ADOPTION OF THE REPORT** (agenda item 13)

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

ST/SG/AC.10/C.3/66 page 31 Annex I

## Annex I

## DRAFT AMENDMENTS TO THE UN RECOMMENDATIONS ON THE TRANSPORT OF DANGEROUS GOODS, MODEL REGULATIONS (15<sup>TH</sup> REVISED EDITION)

(See ST/SG/AC.10/C.3/66/Add.1)

## Annex II

## DRAFT AMENDMENTS TO THE UN RECOMMENDATIONS ON THE TRANSPORT OF DANGEROUS GOODS, MANUAL OF TESTS AND CRITERIA (4TH REVISED EDITION, AS AMENDED)

#### (See ST/SG/AC.10/C.3/66/Add.1)

ST/SG/AC.10/C.3/66 page 33 Annex III

#### Annex III

## TERMS OF REFERENCE ON THE CORRESPONDENCE GROUP ON THE CLASSIFICATION OF MIXTURES

- 1. To review the provisions for determining the proper description of mixtures and solutions, particularly those provisions related to mixtures or solutions containing two or more dangerous goods or two or more goods not subject to the Model Regulations;
- 2. To review the relevant definitions for the classification of mixtures, solutions, and substances (including distinction between pure and technically pure substances);
- 3. To review the requirements for packaging compatibility related to the presence of a proportion of a substance in a mixture or solution;
- 4. To assess how the Model Regulations clearly address regulatory provisions from those provisions contained in guidance material or standards;
- 5. To consider the implications of the approach for the classification of mixtures and solutions as provided in the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) to addressing the problems identified in informal document UN/SCETDG/33/INF.16..
- 6. To editorially clarify existing text as necessary.

## Annex IV

## PLAN OF ACTION FOR THE WORK TO BE UNDERTAKEN ON ELECTRONIC DATA INTERCHANGE

- 1. To identify and assess current documentation requirements in the UN Model Regulations on the Transport of Dangerous Goods and other modal regional, national and local regulations; taking into account elements of information that are core for all modes of transport information necessary for a specific mode, and information that may be of value to some users of the regulations;
- 2. To consider amendments to the UN Model Regulations that will facilitate the use of electronic information within the transport system to improve the speed and accuracy of dangerous goods information transfer, enhance transportation efficiencies, reduce system congestion, and ensure information is effectively provided to all parties that may require such information (e.g., emergency responders, medical personnel, operators, transport workers, enforcement officials and consignors);
- 3. To assess the ability of the electronic transfer of information to enhance safety and security of dangerous goods transport; in particular through communication of critical information to emergency responders and public authorities;
- 4. To identify the ability for electronic documentation to reduce impediments to multi-modal transport; and
- 5. To share progress from various efforts related to this issue (i.e., the Joint Meeting Telematics Project, VOHMA's project, projects in the United States of America, ICAO Dangerous Goods Panel, IATA's E-Freight) with the goal of coordinating efforts with Sub-Committee members.

\_\_\_\_\_