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Working Party on the Transport of Dangerous Goods

Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods

Bern, 8-11 September 2009 and Geneva, 14-18 September 2009 Item 6 of the provisional agenda

### HARMONIZATION WITH THE UN MODEL REGULATIONS ON THE TRANSPORT OF DANGEROUS GOODS

Report of the Ad Hoc Working Group on the Harmonization of RID/ADR/ADN with the UN Recommendations on the Transport of Dangerous Goods

Note by the secretariat<sup>1, 2</sup>

#### I. GENERAL

1. The Ad Hoc Working Group on the Harmonization of RID/ADR/ADN with the UN Recommendations on the Transport of Dangerous Goods met in Geneva, Palais des Nations, from 18 to 20 May 2009 under the chairmanship of Mr. C. Pfauvadel (France).

<sup>1</sup> In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.7 (c)).

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<sup>&</sup>lt;sup>2</sup> Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2009/16.

- 2. Representatives of Austria, Bulgaria, France, Germany, Netherlands, Romania, Switzerland, United Kingdom, the Intergovernmental Organisation for International Carriage by Rail (OTIF), the European Portable Battery Association (EPBA) and the International Road Transport Union (IRU) participated in the session.
- 3. The session was held in English, without interpretation. The documentation prepared by the secretariat, including the agenda, was issued as informal documents which were made available on the website of the UNECE Transport Division as follows:

ECE/TRANS/WP.15/AC.1/HAR/4: Provisional agenda

ECE/TRANS/WP.15/AC.1/HAR/2009/1/Rev.1: Proposals for harmonization (Secretariat)

ECE/TRANS/WP.15/AC.1/HAR/2009/2: Proposals for harmonization (Secretariat)

ECE/TRANS/WP.15/AC.1/HAR/2009/3: Tunnel restriction codes (Secretariat)

ECE/TRANS/WP.15/AC.1/HAR/2009/4: Small quantities of gas (Austria) (distributed in paper form during the session).

- 4. The background documents were the report of the UN Economic and Social Council's Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals and annexes thereto, circulated by the secretariat as documents ST/SG/AC.10/36 and -Adds.1-3.
- 5. The Ad Hoc Working Group adopted the provisional agenda prepared by the secretariat.

# II. HARMONIZATION OF RID/ADR/ADN WITH THE UN RECOMMENDATIONS ON THE TRANSPORT OF DANGEROUS GOODS, MODEL REGULATIONS

<u>Informal documents</u>: ECE/TRANS/WP.15/AC.1/HAR/2009/1/Rev.1 (Secretariat) ECE/TRANS/WP.15/AC.1/HAR/2009/2 (Secretariat)

6. The draft amendments to RID/ADR/ADN proposed by the Ad Hoc Working Group are reproduced in the addendum to this report (ECE/TRANS/WP.15/AC.1/2009/16/Add.1). The Working Group agreed that the comments below should be brought to the attention of the Joint Meeting and some texts were placed between square brackets pending a decision by the Joint Meeting.

### **Definition of cargo transport unit**

- 7. The Ad Hoc Working Group noted that, in RID and ADR, this definition would apply only in the context of Chapter 5.5 and special provision 302, i.e. in relation to fumigated cargo transport units. Since Chapter 5.5 applies to carriage in vehicles/wagons, containers and tanks, and since the definition of tanks covers MEGCs with elements consisting of tanks, it was agreed to include the definition in section 1.2.1 with a note clarifying that it applies only, in RID and ADR, in the context of fumigated cargo transport units.
- 8. It was also agreed that there was no need for the inclusion of a definition of closed cargo transport unit, since this term is not used in Chapter 5.5 or in special provision 302.

#### **Training**

- 9. The Ad Hoc Working Group considered that, although paragraph 1.10.2.1 referred to Chapter 1.3 for training, it would be appropriate to include paragraphs equivalent to 1.4.2.3 and 1.4.2.4 of the UN Model Regulations under section 1.10.2 of RID, ADR and ADN.
- 10. On the other hand, it would also be useful for paragraph 1.4.2.1 of the UN Model Regulations to refer to refresher training as in RID, ADR and ADN.

## Chapter 1.7

11. The last sentence of 1.7.1.1 was placed between square brackets ("The prime responsibility for supply shall rest with the person or organization responsible for facilities and activities that give rise to radiation risk"). The secretariat was invited to check with IAEA what the meaning of this sentence was in relation to the safety obligations of participants defined in Chapter 1.4 of RID/ADR/ADN.

#### Title of Class 9

- 12. There was no consensus on the change to the title of Class 9 consisting of adding the words "including environmentally hazardous substances".
- 13. It was underlined that RID/ADR/ADN differed from the UN Model Regulations since all dangerous goods hazardous to the environment had to be identified as such in RID/ADR/ADN, and not only those belonging to Class 9. It was agreed to place these words between square brackets.

#### **Mixtures and solutions**

14. The Ad Hoc Working Group noted that there were some inconsistencies in the new paragraphs 2.0.2.2 and 2.0.2.5 and the revised section 3.1.3 of the UN Model Regulations which referred sometimes to substances "named", "listed by name", "specifically listed by name" or "indicated by name". It was agreed to use the term "mentioned by name" which is used elsewhere in RID, ADR and ADN.

# Determination of flash-point (section 2.2.3 of the UN Model Regulations; section 2.3.3 of RID/ADR/ADN)

15. The Ad Hoc Working Group noted that RID, ADR and ADN were more precise than the UN Model Regulations, since they identified the types of apparatus to be used and they differentiated between equilibrium and non-equilibrium methods, as well as the methods to be used for viscous liquids (para. 2.3.3.1.2). Futhermore they contained additional procedures in 2.3.3.1.6, 2.3.3.1.7 and 2.3.3.1.8 notably to assess the flash-point when different methods give different results. In addition, when referring to ISO, French NF and German DIN standards, the UN Model Regulations did not specify which edition should be used.

- 16. It was agreed to include the new text of the UN Model Regulations in square brackets, and to keep the existing paragraphs 2.3.3.1.6 to 2.3.3.1.8. The Joint Meeting may wish to decide how to refer to these standards in RID/ADR/ADN and to recommend to the UN Sub-Committee of Experts on the Transport of Dangerous Goods to study the matter.
- 17. The Ad Hoc Working Group also felt that the Joint Meeting's Working Group on Standards should check whether the standards contained a clear description of their scope, e.g. whether or not they could be used for viscous liquids or for certain flash-point ranges. If the scope of application of the various standards referred to was not clear enough, it might be preferable to keep the current text of RID/ADR/ADN as it is with a simple updating of these references as appropriate.

# Determination of initial boiling point (new section 2.3.4 of the UN Model Regulations; new sub-section 2.3.3.2 of RID/ADR/ADN)

- 18. The Ad Hoc Working Group noted that this new sub-section contained references to standards for determining the initial boiling point for petroleum products and volatile organic liquids. It also noted that, according to special provision 649, ASTM standard D86-01 should be used for determining the boiling point of petroleum crude oil (UN No. 1267), petroleum sour crude oil (UN No. 3494) and petroleum distillates (UN No. 1268).
- 19. The Joint Meeting may wish to consider whether this special provision is still needed. If still needed, it was suggested that the reference to ASTM D86-01 should be replaced by a reference to ASTM D86-07a, but it was mentioned that this version had been updated again in 2009, and should be checked.

#### **Toxic by inhalation substances**

- 20. The Ad Hoc Working Group noted that toxic substances meeting the packing group I criterion for toxicity by inhalation had been assigned special provision 354. Such substances are all assigned tank instruction T20 or T22 for carriage in portable tanks. In RID and ADR, they are assigned tank code L10CH or L15CH, but it was not clear from the rationalized approach in 4.3.4.1.2 when L15CH should be assigned since, according to the table in 4.3.4.1.2, L15CH and L10CH may both be assigned to substances of Class 3, packing group I classification code FT1, and to substances of Class 6.1, packing group I, classification code TF1.
- 21. The Ad Hoc Working Group recommended that the Working Group on Tanks should clarify the RID/ADR rationalized approach in this respect, and check the assignment of RID/ADR tank codes for substances which have been assigned special provision 354.
- 22. It was suggested in particular that L10CH should be assigned to UN No. 1580, and that L15CH should be assigned to UN No. 1251, but it should be clarified whether L15CH should be assigned to all substances of Class 6.1, packing group I, classification code TF1, to which special provision 354 has been assigned.

#### Carriage in RID/ADR tanks

- 23. The Joint Meeting's Working Group on Tanks should also check the revised assignments of RID/ADR tank codes as well as the assignment of RID/ADR tank codes to new entries.
- 24. It should also be checked whether a RID/ADR tank code should be assigned to the new entries for calcium hypochlorite (UN Nos. 3485, 3486 and 3487) since the carriage of calcium hypochlorite in RID/ADR tanks is permitted under the current entries (UN Nos. 1748, 2208 and 2880).

#### UN No. 1510, tetranitromethane

- 25. The Ad Hoc Working Group noted that due to its packing group I inhalation toxicity, tetranitromethane had been transferred from Class 5.1 to Class 6.1, despite its Class 5.1 packing group I properties. This would lead to a less stringent tunnel code for carriage in tanks ((C/D) instead of (B/E)) and the Working Party on the Transport of Dangerous Goods may wish to consider whether, as an exception to the rationalized approach in 1.9.5.2.2 of ADR, the code should be (B/D).
- 26. Similarly, the hazard identification number 559 would become 665, and the Joint Meeting may wish to consider whether this is appropriate. The problem occurs also for UN Nos. 1810, 1834 and 1838 transferred from Class 8 to Class 6.1.

#### UN No. 1838, titanium tetrachloride and UN No. 2668 chloroacetonitrile

27. The Ad Hoc Working Group noted that titanium tetrachloride had been transferred from Class 8, packing group II to Class 6.1, packing group I and chloroacetonitrile from packing group II to packing group I of Class 6.1 due to their inhalation toxicity, and as a consequence their carriage in IBCs (IBC 02) would no longer be allowed. The question was asked whether a transitional period should be provided for.

#### **Special provision 589**

28. According to special provision 589, calcium hypochlorite mixtures, dry, containing less than 10% available chlorine, are not subject to the provisions of RID/ADR/ADN. Since certain mixtures have corrosive properties it was suggested that this special provision should be reworded to exempt such mixtures from Class 5.1 only. The question was also raised whether special provision 589 should apply to UN Nos. 3485 and 3486 and to existing UN No. 2208.

#### New UN No. 3495, iodine

29. It was noted that Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EC and 1999/49/EC, and amending Regulation (EC) No. 1907/2006, did not identify iodine as a corrosive substance. It was listed as a GHS category 4 acute toxicity substance, i.e. not meeting the toxicity criteria for transport, and

as an Aquatic Acute 1 substance, i.e. meeting the Class 9 transport criteria for environmentally hazardous substances.

30. Some delegations felt however that, even though this Regulation had incorporated the GHS criteria for classification, the list of harmonized classification and labelling of hazardous substances contained therein had not been fully revised to reflect the GHS criteria and contained certain contradictions. It was recalled that the classification of iodine as a corrosive substance with a toxicity subsidiary risk had been agreed on the basis of human experience data provided by Germany in document ST/SG/AC.10/C.3/2008/9.

#### **Special provision 356**

- 31. The term "competent authority" was placed between square brackets since it should be clarified whether it meant the competent authority of each Contracting Party or the competent authority of the country of manufacture only, and in the latter case whether metal hydride storage systems would also have to be approved by the competent authority of origin of the RID/ADR consignment if the country of manufacture was not a party to RID or ADR.
- 32. It was also noted that there was no definition of "conveyance" in RID and ADR, and it was agreed to add such a definition.

#### Limited quantities (Chapter 3.4)

- 33. The Ad Hoc Working Group noted that there were significant differences between the quantities allowed for carriage under the provisions of Chapter 3.4 of RID/ADR/ADN and those allowed under Chapter 3.4 of the UN Model Regulations. Allowing the same mark, as now included in Chapter 3.4 of the UN Model Regulations, for the carriage of substances packed in quantities exceeding the UN limits could lead to problems of enforcement, in particular for carriage by sea.
- 34. Therefore it was agreed that column (7a) of RID/ADR/ADN should be amended to include the limits contained in the UN Model Regulations, and that the provisions of Chapter 3.4 of the UN Model Regulations should be included in Chapter 3.4 of RID/ADR/ADN for application when the UN quantity limits per inner packaging are not exceeded.
- 35. The LQ codes would also be maintained in column (7a), and could continue to be used in accordance with the current provisions of Chapter 3.4 of RID/ADR/ADN, which would remain also in Chapter 3.4, but could be used only when the quantity per inner packaging exceeded those prescribed in the UN Model Regulations, and for a period to be agreed by the Joint Meeting, e.g. six years as proposed by certain participants, or shorter as proposed by others.
- 36. The secretariat was invited to prepare a proposal to reflect these principles.

#### Packing Instruction P200, paragraph (10), special packing provision "k"

37. The Ad Hoc Working Group noted that current special packing provision "k" of RID/ADR requires that plugs or caps fitted on valve outlets be made of materials not liable to

attack by the contents of the pressure receptacles. Since the requirement is not contained in the UN Model Regulations, the Joint Meeting may wish to check whether it should be retained, or whether it is already covered elsewhere and could be deleted.

#### Packing Instruction P203 (cryogenic receptacles)

- 38. The Ad Hoc Working Group noted that the UN Model Regulations did not require periodic inspections for closed cryogenic receptacles. The new P203 in the UN Model Regulations does not contain the equivalent of existing paragraph (9) in P203 of RID/ADR, and paragraphs 4.1.6.10 and 6.2.1.6 do not apply to closed cryogenic receptacles in the UN Model Regulations. 6.2.1.6.2 of RID and ADR also excludes UN closed cryogenic receptacles from its scope, and although 6.2.3.5.2 applies only to non-UN closed cryogenic receptacles, it is not clear from 4.1.6.10 and P203 (9) of RID/ADR whether or not UN closed cryogenic receptacles would have to be submitted to periodic inspections.
- 39. As a consequence, a paragraph (8) was added between square brackets to the section "Closed cryogenic receptacles" of the new P203, and amendments to 4.1.6.10 and 6.2.3.5 were made and placed between square brackets, for consideration by the Joint Meeting.

#### IBC06, IBC07 and IBC08 (sub-section 4.1.4.2)

40. The Ad Hoc Working Group noted that the deletion of 31HZ2 in paragraph (3) of these packing instructions implied the deletion of W12/V12 in Table A and 7.2.4 in Chapter 7.2 of RID/ADR.

## Paragraph 5.4.0

41. Since there were exemptions from the documentation requirements of Chapter 5.4 in paragraphs other than 1.1.3.1 to 1.1.3.5 (e.g. for fumigated cargo transport units in Chapter 5.5), it was agreed to replace the reference to these paragraphs by a more general reference, reading "Unless otherwise specified in RID/ADR/ADN".

### Excepted packages of radioactive material (paragraph 5.1.5.4.2)

42. The Ad Hoc Working Group noted that the new paragraph 5.1.5.4.2 in the UN Model Regulations, and paragraph 1.5.1.5.1 (a) in the 15th revised edition of the Model Regulations, were not consistent with paragraph 544 (a) of the IAEA Regulations for the Safe Transport of Radioactive Material (2009 edition) and the current provisions of RID/ADR/ADN (paragraph 1.7.1.5 (a)), which require a transport document for the carriage of excepted packages of radioactive material with the indication of the UN number and the names and addresses of the consignor and consignee. This should be clarified with the UN Sub-Committee of Experts on the Transport of Dangerous Goods and the IAEA, since so far, RID, ADR and ADN were in line with the IAEA Regulations.

# Use of Electronic Data Interchange (EDI) and Electronic Data Processing (EDP) techniques (Chapter 5.4)

43. The Ad Hoc Working Group was of the view that the wording of the proposed 5.4.1.4.3 (5.4.1.1.3 in the UN Model Regulations) could imply that a paper document could be required, which was in contradiction with the current NOTE 2 under Chapter 5.4 of RID/ADR/ADN. The paragraph was placed between square brackets for consideration by the Joint Meeting.

#### Acceptance of dangerous goods by carriers

44. It was noted that there was no sub-section in Part 7 of RID/ADR/ADN equivalent to the new sub-section 7.1.1.3 of the UN Model Regulations, and that the equivalent provisions could be placed in an amended paragraph 1.4.2.2.1 (b) as proposed by the secretariat. However the text was placed between square brackets because its contents would depend on the outcome of the discussion on the new paragraph concerning EDI and EDP in Chapter 5.4.

### III. OTHER BUSINESS

#### **Tunnel codes**

Informal document: ECE/TRANS/WP.15/AC.1/HAR/2009/3

45. The Ad Hoc Working Group noted that the secretariat had prepared a list of changes to the tunnel codes in ADR in order to reflect the amendments to classification in Table A of Chapter 3.2 for toxic by inhalation substances. This list of changes should be submitted separately to the Working Party on the Transport of Dangerous Goods since it did not concern RID or ADN.

# Regulations for the transport of compressed or liquefied, non-toxic, non-flammable gases in receptacles containing up to 120 ml

Informal document: ECE/TRANS/WP.15/AC.1/HAR/2009/4

46. The representative of Austria raised a problem of harmonization between the UN Model Regulations and RID/ADR/ADN concerning the various possibilities of classification of compressed or liquefied, non-toxic, non-flammable gases in receptacles containing up to 120 ml. He invited the other participants to provide comments so that he could submit a proposal of harmonization to the UN Sub-Committee of Experts on the Transport of Dangerous Goods or to the Joint Meeting.

#### IV. ADOPTION OF THE REPORT

47. The Ad Hoc Working Group adopted the report on its session by correspondence on the basis of a draft prepared by the secretariat.

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