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COMMITTEE OF EXPERTS ON THE TRANSPORT
OF DANGEROUS GOODS

REPORT OF THE COMMITTEE OF EXPERTS ON ITS SIXTEENTH SESSION
(3-12 December 1990)

Addendum 6

Annex 7: Adopted text and amendments to chapters 15, 16 and 17 and Appendix
of the Recommendations on the Transport of Dangerous Goods
(Sixth revised edition) (ST/SG/AC.10/Rev.6).

Chapter 15

(a) In paragraph 15.1 change "table 15.1" to read "tables 15.1 and 15.2".

(b) In table 15.1 add two new entries to read:

| <u>Class</u> | <u>Packing Group</u> | <u>State</u> | <u>Maximum quantity per inner packaging</u> |
|----------------|----------------------|--------------|---|
| "5.2 <u>c/</u> | II | Solid | 500 g |
| 5.2 <u>c/</u> | II | Liquid | 125 ml" |

(c) Amend footnote (a) of table 15.1 to read:
"This limit may be increased to 1,000 ml for aerosols not containing toxic substance(s)".

(d) Amend footnote b/ to read:

"The organic peroxide should be of type B or C and should not require temperature control. See 11.3.3, 11.3.5 and footnote to 15.2 (e)."

(e) Insert a new footnote c/ to read:

"The organic peroxide should be of type D, E or F and should not require temperature control. See 11.3.3, 11.3.5 and footnote to 15.2 (e)."

(f) Change footnote c/ to read footnote d/ (twice - one in text (500 ml^{d/}) and another in footnote).

(g) After table 15.1, add:

"Table 15.2: QUANTITY LIMITATIONS FOR CLASS 9

| UN number | Proper shipping name | Maximum quantity per inner packaging |
|-----------|------------------------------|--------------------------------------|
| 1941 | DIBROMODIFLUOROMETHANE | 5 l |
| 2071 | AMMONIUM NITRATE FERTILIZERS | 5 kg |
| 2209 | FORMALDEHYDE SOLUTIONS | 5 l " |

Renumber 15.3 as 15.3.1 and add a new subparagraph 15.3.2.

"15.3.2. Shrink-wrapped or stretch-wrapped trays meeting the conditions of 9.3.1, 9.3.2 and 9.3.4 to 9.3.8 are acceptable as outer packagings for articles or inner packagings containing dangerous goods transported in accordance with these special recommendations. The total gross mass of the package should not exceed 20 kg."

Chapter 16

Where the word "metallic" occurs in relation to packagings, change to "metal".

- (a) Insert a new subparagraph 16.1.6.8 to read:

"IBCs used for solids which may become liquid at temperatures likely to be encountered during transport should also be capable of containing the substance in the liquid state."

- (b) 16.3.5.3, add the following note:

"Note. Average values should fall within these limits. Short-term fluctuations and measurement limitations may cause individual measurements to vary by up to $\pm 5\%$ relative humidity without significant impairment of test reproducibility."

- (c) Paragraph 16.4.9.5.4 (b) amend to read:

"For IBCs of types 31H1 and 31H2:- whichever is the greater of two values, the first as determined by one of the following methods:"
(i), (ii) and (iii) unchanged
"and the second as determined by the following method:"
(iv) unchanged

- (d) Paragraph 16.5.5.1 insert after the first sentence:

"Another IBC of the same design may be used for the drop test as set out in paragraph 16.5.9.6"

- (e) 16.5.8.4

Add following note:

"Note. Average values should fall within these limits. Short-term fluctuations and measurement limitations may cause individual measurements to vary by up to $\pm 5\%$ relative humidity without significant impairment of test reproducibility."

- (f) Paragraph 16.5.9.5.4 (b) amend to read:

"For IBCs of types 31HZ1 and 31HZ2:- whichever is the greater of two values, the first as determined by one of the following methods:"
(i), (ii) and (iii) unchanged
"and the second as determined by the following method:"
(iv) unchanged.

(g) 16.6.5.4

Add following note:

"Note. Average values should fall within these limits. Short-term fluctuations and measurement limitations may cause individual measurements to vary by up to $\pm 5\%$ relative humidity without significant impairment of test reproducibility."

Chapter 17(a) Amend paragraph 17.16 (a) and (b) to read as follows:

17.16 (a) for flammable gases, Division 2.1, 95%;

(b) for non-flammable, non-toxic gases, Division 2.2, 98%.

(b) Amend Table 17.1 to read as follows:

"TABLE 17.1 - List of Refrigerated Liquified Gases in Class 2
Transported in Tank-Containers

| UN No. | Substance | Division | Subsidiary Risk Label | Special Requirements |
|--------|-------------------------------|----------|-----------------------|--|
| 1003 | Air, refrigerated liquid | 2.2 | 5.1 | Lubricant for joints or other devices shall be inert to oxygen |
| 1038 | Ethylene, refrigerated liquid | 2.1 | | |
| 1073 | Oxygen, refrigerated liquid | 2.2 | 5.1 | Lubricant for joints or other devices shall be inert to oxygen |
| 1913 | Neon, refrigerated liquid | 2.2 | | |
| 1951 | Argon, refrigerated liquid | 2.2 | | |
| 1961 | Ethane, refrigerated liquid | 2.1 | | |
| 1963 | Helium, refrigerated liquid | 2.2 | | |

| UN No. | Substance | Division | Subsidiary Risk Label | Special Requirements |
|--------|---|----------|-----------------------|---|
| 1966 | Hydrogen, refrigerated liquid | 2.1 | | Carriage permitted under special conditions prescribed by the competent authorities. Frangible discs are allowed at the discretion of the competent authority. |
| 1970 | Krypton, refrigerated liquid | 2.2 | | |
| 1972 | Methane, refrigerated liquid | 2.1 | | |
| 1972 | Natural gas with a high methane content, refrigerated liquid | 2.1 | | |
| 1977 | Nitrogen, refrigerated liquid | 2.2 | | |
| 2187 | Carbon dioxide refrigerated liquid | 2.2 | | |
| 2201 | Nitrous oxide, refrigerated liquid | 2.2 | | Lubricants for joints or other devices shall be inert to oxygen |
| 2591 | Xenon, refrigerated liquid | 2.2 | | |
| 3138 | Ethylene, acetylene and propylene in mixtures, refrigerated liquid; containing at least 71.5% ethylene with not more than 22.5% acetylene and not more than 6% propylene | 2.1 | | |

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APPENDIX

List of Generic or N.O.S. Proper Shipping Names

The following list contains the main generic entries and all the N.O.S. entries given in chapter 2. When a substance is not listed by name in chapter 2, this list may be used as an aid to finding the most appropriate generic or N.O.S. Proper Shipping Name. The most specific applicable name should always be used.

Names are shown grouped under each Class and Division. Within each Class or Division the more specific names are listed first.

| Class or Division | Subsidiary Risk | UN Number | Proper Shipping Name |
|-------------------|-----------------|-----------|----------------------|
|-------------------|-----------------|-----------|----------------------|

(TABLE TO BE CONSTRUCTED)