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**COMMITTEE OF EXPERTS ON THE TRANSPORT
OF DANGEROUS GOODS AND ON THE GLOBALLY
HARMONIZED SYSTEM OF CLASSIFICATION
AND LABELLING OF CHEMICALS**

**Sub-Committee of Experts on the
Transport of Dangerous Goods**

**REPORT OF THE SUB-COMMITTEE OF EXPERTS
ON ITS TWENTY-FIRST SESSION**

(Geneva, 1-10 July 2002)

Addendum 3

Annex 4: Draft amendments to the Model Regulations on the Transport of Dangerous Goods annexed to the Recommendations on the Transport of Dangerous Goods (ST/SG/AC.10/1/Rev.12).

Annex 5: Draft amendments to the Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria (ST/SG/AC.10/11/Rev.3).

NOTE: *A consolidated list of all draft amendments to the Model Regulations and to the Manual of Tests and Criteria adopted by the Sub-Committee at its nineteenth, twentieth and twenty-first sessions will be prepared by the secretariat and issued as document ST/SG/AC.10/C.3/2002/60.*

Annex 4

Draft amendments to the Model Regulations annexed to the Recommendations on the Transport of Dangerous Goods

Chapter 1.2

1.2.1 In the definition of "*Portable tank*", insert "Class 1 and" before "Classes 3 to 9" in the first sentence of paragraph (a).

- Insert a new definition for "*Routine maintenance of flexible IBCs*" under "*Intermediate Bulk Containers (IBCs)*" as follows:

"Routine maintenance of flexible IBCs is the routine performance on plastics or textile flexible IBCs of operations, such as:

- a) cleaning; or
- b) replacement of non-integral components, such as non-integral liners and closure ties, with components conforming to the original manufacturer's specification;

provided that these operations do not adversely affect the containment function of the flexible IBC or alter the design type.

NOTE: For rigid IBCs, see "Routine maintenance of rigid IBCs".

- Replace "*Routine maintenance of IBCs*" with "*Routine maintenance of rigid IBCs*" and add a note at the end of the existing text to read as follows:

"NOTE: For flexible IBCs, see "Routine maintenance of flexible IBCs".

- Insert an entry for "*Routine maintenance of flexible IBCs*" in alphabetical order with the following reference: "(see "*Intermediate Bulk Containers (IBCs)*")".
- In the definition of "*Repaired IBCs*", insert the word "rigid" before "IBCs" in the last but one sentence and add the following sentence at the end of the existing text: "Flexible IBCs are not repairable unless approved by the competent authority."

Chapter 2.6

2.6.2.1.1 Replace the existing definition for "acute oral toxicity" with the following text:
"LD₅₀ (median lethal dose) for acute oral toxicity is the statistically derived single dose of a substance that can be expected to cause death within 14 days in 50 per cent of young adult albino rats when administered by the oral route. The LD₅₀ value is expressed in terms of mass of test substance per mass of test animal (mg/kg)."

2.6.2.2.4.3 In footnote "*", replace "Tear gases" with "Tear gas substances". (*This amendment does not apply to the French version*).

Chapter 2.8

2.8.2.5 (c) (ii) Replace the two last sentences of this subparagraph with the following text:

"[For the purposes of testing steel, type **S235JR+CR (1.0037 resp. St 37-2)**, **S275J2G3+CR (1.0144 resp. St 44-3)**, ISO 3574 or Unified Numbering System (UNS) G10200 or a similar type,] and for testing aluminium, non-clad, types 7075-T6 or AZ5GU-T6 shall be used. An acceptable test is prescribed in the Manual of Tests and Criteria, Part III, Section 37".

Chapter 3.1

3.1.2.7 Replace "included" with "transported".

3.1.2.8.1 Replace "their technical" with "the technical" in the first sentence.

Chapter 3.2

Dangerous Goods List

UN 1057 Replace "P003" with "P002" in column (8) and add "PP84" in column (9).

UN 1408 For the packing group III, insert "B6" in column 9.

UN 2813 For packing groups I, II and III, add "PP83" in column 9.

UN Nos. 3377 and 3378 Delete "PP84" and "B13" in column (9) and for UN 3378, packing group II, replace "T1" with "T3" in column (10). Delete PP84 in P002 and B13 in IBC08. (*refer to document ST/SG/AC.10/C.3/40/Add.2*).

For UN Nos. 1583, 2810, 2927, 2929, 3122, 3123, 3275, 3276, 3278, 3279, 3280, 3281, 3287 and 3289 insert "315" in column (6).

For UN Nos. 1748 (PGII), 2208 and 2880 (PGII), insert "313" and "314" in column (6) and "PP85" and "B13" in column (9).

For UN Nos. 0331, 0332 and 3375, insert "T1" in column (10) and "TP1", "TP17" and "TP32" in column (11).

Insert a new row for packing group III against UN Nos. 1748 and 2880, as follows:

(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
5.1		III	316	5 kg	P002 IBC08	B4		

Add the following new entries:

UN No (1)	Name and description (2)	Class or Division (3)	Sub. risk (4)	PG (5)	SP (6)	LQ (7)	Packaging and IBCs		Portable Tanks	
							PI (8)	PP (9)	T (10)	TP (11)
3381	TOXIC BY INHALATION LIQUID, N.O.S. with an inhalation toxicity of 200 ml/m ³ or less and saturated vapour concentration ≥ 500 LC ₅₀	6.1		I	274	None	P601		T22	TP2, TP13
3382	TOXIC BY INHALATION LIQUID, N.O.S. with an inhalation toxicity of 1000 ml/m ³ or less and saturated vapour concentration ≥ 10 LC ₅₀	6.1		I	274	None	P602		T20	TP2, TP13
3383	TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S. with an inhalation toxicity of 200 ml/m ³ or less and saturated vapour concentration ≥ 500 LC ₅₀	6.1	3	I	274	None	P601		T22	TP2, TP13
3384	TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S. with an inhalation toxicity of 1000 ml/m ³ or less and saturated vapour concentration ≥ 10 LC ₅₀	6.1	3	I	274	None	P602		T20	TP2, TP13
3385	TOXIC BY INHALATION LIQUID, WATER-REACTIVE, N.O.S. with an inhalation toxicity of 200 ml/m ³ or less and saturated vapour concentration ≥ 500 LC ₅₀	6.1	4.3	I	274	None	P601		T22	TP2, TP13
3386	TOXIC BY INHALATION LIQUID, WATER-REACTIVE, N.O.S. with an inhalation toxicity of 1000 ml/m ³ or less and saturated vapour concentration ≥ 10 LC ₅₀	6.1	4.3	I	274	None	P602		T20	TP2, TP13

UN No (1)	Name and description (2)	Class or Division (3)	Sub. risk (4)	PG (5)	SP (6)	LQ (7)	Packaging and IBCs		Portable Tanks	
							PI (8)	PP (9)	T (10)	TP (11)
3387	TOXIC BY INHALATION LIQUID, OXIDIZING, N.O.S. with an inhalation toxicity of 200 ml/m ³ or less and saturated vapour concentration $\geq 500 LC_{50}$	6.1	5.1	I	274	None	P601		T22	TP2, TP13
3388	TOXIC BY INHALATION LIQUID, OXIDIZING, N.O.S. with an inhalation toxicity of 1000 ml/m ³ or less and saturated vapour concentration $\geq 10 LC_{50}$	6.1	5.1	I	274	None	P602		T20	TP2, TP13
3389	TOXIC BY INHALATION LIQUID, CORROSIVE, N.O.S. with an inhalation toxicity of 200 ml/m ³ or less and saturated vapour concentration $\geq 500 LC_{50}$	6.1	8	I	274	None	P601		T22	TP2, TP13
3390	TOXIC BY INHALATION LIQUID, CORROSIVE, N.O.S. with an inhalation toxicity of 1000 ml/m ³ or less and saturated vapour concentration $\geq 10 LC_{50}$	6.1	8	I	274	None	P602		T20	TP2, TP13

Chapter 3.3

SP63

Replace (a) and (b) with the following:

- "(a) Division 2.1 applies if the contents include 85% by mass or more flammable components and the chemical heat of combustion is 30 kJ/g or more;
- (b) Division 2.2 applies if the contents contain 1% by mass or less flammable components and the heat of combustion is less than 20 kJ/g."

Insert a new (c) as follows:

- "(c) Otherwise the product shall be classified as tested by the tests described in the *Manual of Tests and Criteria*, Part III, section 31. Extremely flammable and flammable aerosols shall be classified in Division 2.1; non-flammable in Division 2.2."

The existing subparagraphs (c), (d), (e) and (f) become (d), (e), (f) and (g) respectively.

Add at the end a new paragraph to read as follows:

"Flammable components are flammable liquids, flammable solids or flammable gases and gas mixtures as defined in Notes 1 to 3 of sub-section 31.1.3 of Part III of the *Manual of Tests and Criteria*. This designation does not cover pyrophoric, self-heating or water-reactive substances. The chemical heat of combustion shall be determined by one of the following methods ASTM D 240, ISO/FDIS 13943: 1999 (E/F) 86.1 to 86.3 or NFPA 30B."

SP179 Amend special provision 179 adopted at the last session (ST/SG/AC.10/C.3/40/Add.2) by adding the following sentence after "and their Disposal": "and for substances designated to be environmentally hazardous substances by the competent authority of the country of origin, transit or destination which do not meet the criteria for an environmentally hazardous substance according to these Regulations or for any other hazard Class."

SP296 Replace the existing text with the following:

"296 These entries apply for life-saving appliances such as life rafts, personal flotation devices and self-inflating slides. UN 2990 applies for self-inflating appliances and UN 3072 applies for life-saving appliances that are not self-inflating. Life-saving appliances may contain:

- (a) Signal devices (Class 1) which may include smoke and illumination signal flares packed in packagings that prevent them from being inadvertently activated;
- (b) For UN 2990 only, cartridges, power device of Division 1.4, compatibility group S, may be contained for purposes of the self-inflating mechanism and provided that the quantity of explosives per appliance does not exceed 3.2 g;
- (c) Division 2.2 compressed gases;
- (d) Electric storage batteries (Class 8) and lithium batteries (Class 9);
- (e) First aid kits or repair kits containing small quantities of dangerous goods (e.g.: Class 3, Division 4.1, Division 5.2, Class 8 or Class 9 substances); or
- (f) "Strike anywhere" matches packed in packagings that prevent them from being inadvertently activated."

Add the following new special provisions:

"313 Substances and mixtures meeting the criteria for Class 8 shall be labelled with a "CORROSIVE" subsidiary risk label.

- 314 a) These substances are liable to exothermic decomposition at elevated temperatures. Decomposition can be initiated by heat or by impurities (e.g. powdered metals (iron, manganese, cobalt, magnesium) and their compounds);
- b) During the course of transport, these substances shall be shaded from direct sunlight and all sources of heat and be placed in adequately ventilated areas.

- 315 This entry shall not be used for Division 6.1 substances that meet the inhalation toxicity criteria for packing group I described in 2.6.2.2.4.3.
- 316 This entry applies only to calcium hypochlorite, dry or hydrated, when transported in non friable tablet form."

Chapter 4.1

- 4.1.1.8 Amend this paragraph to read as follows:
 "4.1.1.8 Liquids may only be filled into inner packagings which have an appropriate resistance to internal pressure that may be developed under normal conditions of transport. Where pressure may develop in a package by the emission of gas from the contents (as a result of temperature increase or other causes), the packaging, including IBC, may be fitted with a vent. A venting device shall be fitted if dangerous overpressure may develop due to normal decomposition of substances. However, the gas emitted shall not cause danger on account of its toxicity, its flammability, the quantity released, etc. The vent shall be so designed that, when the packaging, including IBC, is in the attitude in which it is intended to be transported, leakages of liquid and the penetration of foreign matter are prevented under normal conditions of transport. Venting of the package is not permitted for air transport."
- 4.1.1.9 Insert the words "or routinely maintained" after "repaired", in the first and last sentences.
- 4.1.2.5 Insert the words "and flexible" after "composite" in the first sentence and delete "and" after "rigid plastics".
- 4.1.3.4 Add, at the end, a new line for large packagings to read as follows:
 "Large packagings
 Flexible plastics: 51H (outer packaging)".
- 4.1.3.6 Replace "Cylinders, bundles of cylinders, pressure drums and tubes" with "All cylinders, tubes, pressure drums and bundles of cylinders".
- 4.1.4.1 **P002 and**
P410 Extend the application of notes "5" and "3" in P002 and P410 respectively, to steel, aluminium and solid plastics boxes.
- P002** In special packing provision **PP9**, add a new sentence at the end to read as follows:
 "For UN 3175 the leakproofness test is not required when the liquids are fully absorbed in solid material contained in sealed bags."
- Under "Special packing provisions", add two new special packing provisions as follows:
- "PP84 For UN 1057, rigid outer packagings meeting the packing group II performance level shall be used. The packagings shall be designed and constructed and arranged to prevent movement, inadvertent ignition of the devices or inadvertent release of flammable gas or liquid.
- PP85 For UN Nos. 1748, 2208 and 2880 if bags are used as single packagings they should be adequately separated to allow for the dissipation of heat."

P400(1) At the end of the second sentence, replace "in strong wood fibreboard or plastics boxes" with "in strong rigid outer packagings", and in the third sentence, replace "box" with "outer packaging".

P403 Under "Inner packagings", replace "Inner packagings shall have threaded closures" with "Inner packagings shall be hermetically sealed (e.g. by taping or by threaded closures)".

Amend special packing provision PP83 adopted at the last session (ST/SG/AC.10/C.3/40/Add.2) to read as follows:

"PP83 For UN No. 2813 waterproof bags containing not more than 20 g of substance for the purposes of heat formation may be packaged for transport. Each waterproof bag shall be sealed in a plastics bag and placed within an intermediate packaging. No outer packaging shall contain more than 400 g of substance. Water or liquid which may react with the water reactive substance shall not be included in the packaging."

P410 Under "Special packing provisions", add PP83 (same wording as above).

P520 In column OP8, replace "200²" with "400²" and amend note 2 to read:

"² 60 kg for jerricans/200 kg for boxes and, for solids, 400 kg in combination packagings with outer packagings comprising boxes (4C1, 4C2, 4D, 4F, 4G, 4H1 and 4H2) and with inner packagings of plastics or fibre with a maximum net mass of 25 kg."

P601(3) Replace "Combination packagings" with "Packagings consisting of:" and amend the first paragraph to read as follows:

"Outer packagings: Steel or plastic drums, removable head (1A2 or 1H2), tested in accordance with the test requirements in 6.1.5 at a mass corresponding to the mass of the assembled package either as a packaging intended to contain inner packagings, or as a single packaging intended to contain solids or liquids, and marked accordingly."

P906(1)

and (2) Insert "or polyhalogenated biphenyls or terphenyls" after "PCBs".

4.1.4.2 **IBC08** In special packing provision B6, insert "1408", after "1386,".

Insert a new special packing provision B13, to read as follows:

"B13 For UN Nos. 1748, 2208 and 2880, transport by sea in IBCs is prohibited."

4.1.4.3 **LP02** Add "Flexible plastics (51H)³" under the heading "Large outer packagings" and a note 3 to the table, as follows: "³ To be used with flexible inner packagings only."

Chapter 4.2

4.2.1 Insert "Class 1 and" before "Classes 3 to 9".

4.2.1.1 Amend the end of the first sentence in paragraph 4.2.1.1 to read: "... transport of substances of Classes 1, 3, 4, 5, 6, 7, 8 and 9."

4.2.5.2.1 Replace "2" with "1" at the end of the first sentence.

4.2.5.2.2 Insert "Class 1 and" before "Classes 3 to 9" at the beginning of the first sentence.

4.2.5.3 Add a new portable tank instruction TP32 to read as follows:

"TP32 For UN Nos. 0331, 0332 and 3375, portable tanks may be used subject to the following conditions:

- (a) To avoid unnecessary confinement, each portable tank constructed of metal shall be fitted with a pressure-relief device that may be of the reclosing spring loaded type, a frangible disc or a fusible element. The set to discharge or burst pressure, as applicable, shall not be greater than 2.65 bar for portable tanks with minimum test pressures greater than 4 bar;
- (b) The suitability for transport in tanks shall be demonstrated. One method to evaluate this suitability is test 8 (d) in Test Series 8 (see 18.7 in the Manual of Tests and Criteria).
- (c) Substances shall not be allowed to remain in the portable tank for any period that could result in caking. Appropriate measures shall be taken to avoid accumulation and packing of substances in the tank (eg, cleaning, etc).".

Chapter 5.1

5.1.2.1 Insert "with the word "OVERPACK" and" after "shall be marked".

5.1.2.2 Insert the following sentence after "these Regulations.": "The overpack marking is an indication of compliance with this requirement.".

Chapter 6.2

Delete "certified" in relation with "UN certified pressure receptacles" all throughout Chapter 6.2.

6.2.1.1.7 Replace "charged" with "filled" in the last sentence.

6.2.2.5.2.4 Replace "as an inspector" with "for the inspection".

6.2.2.5.4.1 Replace "encompass" with "meet".

6.2.2.5.4.2 Replace "written approval" with "certificate" in the last sentence.

6.2.2.5.4.9 Replace "certification" with "approval" in the last paragraph.

Chapter 6.7

6.7.2 Insert "Class 1 and" before "Classes 3 to 9".

6.7.2.1 In the definition of "*Portable tank*", insert "Class 1 and" before "Classes 3 to 9" in the first sentence.

- 6.7.2.12.2 Amend the beginning of the first sentence to read as follows:
"The combined delivery capacity of the pressure relief system (taking into account the reduction of the flow when the portable tank is fitted with frangible-discs preceding spring-loaded pressure-relief devices or when the spring-loaded pressure-relief devices are provided with a device to prevent the passage of the flame), in condition of complete fire engulfment...".
- 6.7.2.13.1 (e) Insert the following text after "flow capacity": "of the spring-loaded pressure relief devices, frangible discs or fusible elements".
- 6.7.2.13.2 Insert the words "spring-loaded" before "pressure-relief devices".
- 6.7.5.1 In the definition of "Elements" delete "restricted to".
- 6.7.5.2.1 Replace "loaded" with "filled" in the first sentence.
- 6.7.5.4.1 In the second sentence, delete "Other" and insert "for other gases" after "MEGCs" and "of" before "use".
- 6.7.5.5.1 Insert, "of the MEGC" after "fire engulfment" in the first sentence.

Other amendments

Infectious substances

Amend the Model Regulations in accordance with **ST/SG/AC.10/C.3/2002/16**, with the following modifications:

- 2.6.3.1.1 Delete "plasmids" in the last sentence.
Consequential amendment: In the existing definition under 2.6.1 (b) of the 12th revised edition of the UN Model Regulations, replace "or recombinant micro-organisms (hybrid or mutant), that are known or reasonably expected to cause infectious disease in animals or humans." with "and other agents such as prions, which can cause disease in humans or animals."
- 2.6.3.1.2 Replace "national governmental" with "appropriate national".
- 2.6.3.1.3 Amend to read as follows:
"Cultures (laboratory stocks) are the result of a process by which pathogens are amplified or propagated in order to generate high concentrations, thereby increasing the risk of infection when exposure to them occurs. This definition does not include specimens for diagnostic or clinical purposes in growth or non growth promoting medium."
- 2.6.3.2.1 and
2.6.3.2.2 Delete the existing sentence under 2.6.3.2.2 and move the last sentence of 2.6.3.2.1 to 2.6.3.2.2.
- 2.6.3.2.2.1 Replace "to" with "in" in the last sentence.
Under (a), delete "shall be assigned to UN 2814 or UN 2900. Infectious substances" in the first and second sentences.
Under (b), replace "should" with "shall".
- 2.6.3.2.2.2 Replace "meeting these criteria" with "in Category B", insert "as defined in 2.6.3.1.3" after "cultures" and add a note at the end of the paragraph to read as follows: "**NOTE:** *The proper shipping name of UN 3373 is "DIAGNOSTIC SPECIMENS" or "CLINICAL SPECIMENS."*"
- 2.6.3.3.1 Rename "(a)" as "(b)" and vice versa.
Under new (a), delete "governmental health" and insert "appropriate" before "national".
Under new (b), amend the beginning of the first sentence to read as follows: "Those which do not fall under paragraph (a) and are known or..."(*remainder unchanged*).
- 2.6.3.4.1 Amend to read as follows:
"2.6.3.4.1 Genetically modified micro-organisms not meeting the definition of infectious substances shall be classified according to Chapter 2.9."
- 2.6.3.4.2, 2.6.3.4.3
and 2.6.3.4.4 Delete these paragraphs.
- 2.6.3.5.1 Insert "containing" before "Category B" in the first sentence.

- 4.1.4.1 **P620** Under (b), replace "at least" with "not less than".
Under 2 (a) replace "paraffin" with "paraffin".

P650 In Part 2, amend "5." to read as follows:

"Outer packagings constructed of suitable material of adequate strength and design in relation to the packaging capacity and its intended use shall be used. The smallest external dimension shall be not less than 100 mm."

Genetically modified micro-organisms or organisms

Amend the Model Regulations in accordance with **ST/SG/AC.10/C.3/2002/34** (except for proposed sections 2.9.1 and 2.9.2), with the following modifications:

2.9.3.1 Amend to read as follows:

"2.9.3.1 Genetically modified micro-organisms and genetically modified organisms which do not meet the definition of infectious substances but which are capable of altering animals, plants or microbiological substances in a way not normally the result of natural reproduction shall be classified in Class 9 and assigned to UN No. 3245."

2.9.3.2 Insert ", transit" after "of origin".

2.9.3.3 Delete this paragraph.

SP219 Amend to read as follows:

"Genetically modified micro-organisms and genetically modified organisms which meet the definition of an infectious substance and the criteria for inclusion in Division 6.2 in accordance with Chapter 2.6 shall be transported as UN 2814, UN 2900 or UN 3373, as appropriate."

P904 Delete "Combination" at the beginning of paragraph (1) and insert an horizontal line immediately after paragraph (b) and the heading "**Additional requirement**" above "Dry and Liquid Nitrogen". Delete the existing "3." before "Dry and Liquid Nitrogen".

Organometallic substances

Amend the Model Regulations in accordance with **ST/SG/AC.10/C.3/2002/25** (except for proposals 4.3 and 5.1), with the following modifications:

- In the flowchart and in the list of new entries for the dangerous goods list, replace "XXX1" to "XX10" with "3391" to "3400".
- In the list of new entries for the Dangerous Goods List, delete "yyy" in the column under the heading "Special provisions".
- In proposal 4.5, the new packing provisions to be assigned are:
 - For P404, "PP86";
 - For P400, "PP87" and
 - For IBC04, "B14";

Solid substances in bulk

Amend the Model Regulations in accordance with **ST/SG/AC.10/C.3/2002/29, Annexes 1, 2 and 3**, with the following modifications:

Delete all the square brackets and the stroked text, throughout the document.

Annex 1

- 1.2.1 Delete "and rail wagons." at the end of the first paragraph after the indents.
Add the following sentence at the end of the second paragraph after the indents: "For freight containers for the transport of Class 7 materials, see 2.7.2."
- 4.3.1.1 At the end of the last sentence, replace "and described in 6.8.2.4" with "The bulk container shall conform to the design requirements of Chapter 6.8."
- 4.3.1.2 and
4.3.1.3 Replace "Column 8" with "Column 10".
- 4.3.1.4 Delete this paragraph and renumber subsequent paragraphs accordingly.
- 4.3.1.5a Delete this paragraph.
- 4.3.1.12 (former 4.3.1.13) Delete this paragraph.
- 4.3.1.13 (former 4.3.1.15) Amend to read: "...flammable vapours (e.g. for certain wastes) measures...".
- 4.3.1.15 (former 4.3.1.17) Under (g), delete "or" at the end; under (h), amend the end to read: "features; or" and add the following new subparagraph (i):
- "(i) Any damage to service or operational equipment."
- 6.8.1 In the definition for "*Closed bulk container*", add "(including hopper-type bottoms)." at the end of the first sentence, and the following text at the end:
"Closed bulk containers may be equipped with openings to allow for the exchange of vapours and gases with air and which prevent under normal conditions of transport the release of solid contents as well as the penetration of rain and splash water."

In the definition for "*Sheeted bulk container*" replace "floor" with "bottom (including hopper-type bottom)."
- 6.8.3.1.1 Amend the end of the paragraph to read as follows: "...ISO 1496-4 and the container is siftproof .".
- 6.8.3.1.5a Delete this paragraph.
- 6.8.3.2.3 Renumber this paragraph as "6.8.3.2.1".
- 6.8.3.3.1 Amend the end of the paragraph to read as follows: "...shall be tested and approved in accordance with the CSC Convention."

6.8.4.1 Replace "part" with "section".

6.8.4.4 Replace "Such" with "These", "container" with "containers" and add the following text after "in accordance with 6.8.2.3": "and the requirements for inspection and testing as appropriate."

6.8.4.6 In the statement, insert "BK(x)" before "approved".

Annex 2 In the table:

- Delete the content of the columns under the headings "RID/ADR", "IMO", "CFR";
- Insert "(10)" after the heading "Bulk container codes";
- In column (1), replace "3yyy" with "3378" and "3XXX" with "3377";
- Amend the following entries as follows:
 - UN 2067 Delete the text in lower case in column (2).
 - UN 2069 Delete this entry.
- Insert the following new entry:

3170	ALUMINIUM SMELTING BY PRODUCTS or ALUMINIUM REMELTING BY-PRODUCTS	4.3		II				BK1
								BK2
		4.3		III				BK1
								BK2

Annex 3

5.4.1.5.8 Amend the proposed new paragraph 5.4.1.5.8 to read as follows:

"5.4.1.5.8 Transport of solids in bulk containers

For bulk containers other than freight containers, the following statement shall be shown on the transport document (see 6.8.4.6):

"Bulk container BK(x) approved by the competent authority of"

Organic peroxides

Amend the Model Regulations in accordance with **ST/SG/AC.10/C.3/2002/27** (proposals in sections 3.1, 3.2 and 3.3) with the following modification: in proposal 3.3 D), add "31H1" and "31HA1" to the types of IBCs permitted for Dicumyl peroxide.

Radioactive material

Amend the Model Regulations in accordance with **ST/SG/AC.10/C.3/2002/55**, with the following modifications:

- Under point 12, place "without leakage" between commas.
- Under point 28, the addition of footnote "a" to the UN Model Regulations has not been adopted. The addition of footnote "b" has been replaced with the following:
In the Dangerous Goods List, add a new special provision "317" to all the UN Nos. containing the words "fissile-excepted" in lower case in column (2). (UN Nos. 2912, 2913, 2915, 2916, 2917, 2919, 2978, 3321, 3322, 3323 and 3332).

The following amendments should be added:

In Chapter 3.3, add a new special provision **SP317**, to read as follows:
"317 "Fissile-excepted" applies only to those packages complying with 6.4.11.2."

Amend the end of 7.1.7.1.1 (b) to read: "...to the critical group, taking into account of the exposures expected to be delivered by all other relevant sources and practices under control."

Revision of proper shipping names (physical state)

Amend the Model Regulations in accordance with **ST/SG/AC.10/C.3/2002/44**, as amended by INF.71*, with the following additional amendments:

Amend paragraph 3.2.1 of the Model Regulations by adding, at the end of the explanatory text for column (2), the following sentence:

"Unless otherwise indicated for an entry in the dangerous goods list, the word "solution" in a proper shipping name means one or more named dangerous goods dissolved in a liquid that is not otherwise subject to these Regulations."

Environmentally hazardous substances

Amend Chapter 2.9 in accordance with ST/SG/AC.10/C.3/2002/51 and ST/SG/AC.10/C.3/42, para. 133*.

* All detailed amendments will be reflected in ST/SG/AC.10/C.3/2002/60.

Annex 5**Draft amendments to the Recommendations on the Transport of Dangerous Goods,
Manual of Tests and Criteria (ST/SG/AC.10/11/Rev.3)**

Amend the texts of Section 18 adopted during the 19th session of the Sub-committee (ST/SG/AC.10/C.3/38/Add.1, Annex 2) as follows:

Figure 10.4 Delete the boxes of the flowchart containing text between square brackets.

Table 18.1 Delete the square brackets around the row corresponding to Test code 8(d) and replace "*" with "***" after "Vented pipe test".

Amend note "*" to read: *"* This test is intended for classification"* and add a new note "***" to read: *"** This test is intended for evaluating the suitability for transport in tanks."*

18.4.1.1.2 Delete the square brackets around "20 °C" in the last sentence.

18.4.1.5 Add the following test results:

Substances	Sample mass (g)	Test T (°C)	Result	Comments
ANE-J1 Ammonium nitrate 80%, Water 13%, Fuel/emulsifier 7%	613	80	-	Mass loss 0.1%
ANE-J2 Ammonium nitrate 76%, Water 17%, Fuel/emulsifier 7%	605	80	-	Mass loss 0.3%
ANE-J4 Ammonium nitrate 71%, Sodium nitrate 11%, Water 12%, Fuel/emulsifier 6%	602	80	-	Mass loss 0.1%

18.5.1.5 Add the following test results:

Substances	Density g/cm ³	Gap mm	Result	Comments
ANE-J1 Ammonium nitrate 80%, Water 13%, Fuel/emulsifier 7%	1.39	70	-	Tube fragmented. Plate indented.
ANE-J2 Ammonium nitrate 76%, Water 17%, Fuel/emulsifier 7%	1.42	70	-	Tube fragmented. Plate indented.
ANE-J4 Ammonium nitrate 71%, Sodium nitrate 11%, Water 12%, Fuel/emulsifier 6%	1.40	70	-	Tube fragmented. Plate indented.
ANE-J5 (sensitized by microballoons) Ammonium nitrate 71%, Sodium nitrate 5%, Water 18%, Fuel/emulsifier 6%	1.20	70	+	Tube fragmented. Plate perforated. VOD 5.7 km/s
ANE-J6 (sensitized by microballoons) Ammonium nitrate 80%, Water 13%, Fuel/emulsifier 7%	1.26	70	+	Tube fragmented. Plate perforated. VOD 6.3 km/s

18.6.1.5 Add the following test results:

Substances	Result	Comments
ANE-J1 Ammonium nitrate 80%, Water 13%, Fuel/emulsifier 7%	-	Effect type "O"
ANE-J2 Ammonium nitrate 76%, Water 17%, Fuel/emulsifier 7%	-	Effect type "O"
ANE-J4 Ammonium nitrate 71%, Sodium nitrate 11%, Water 12%, Fuel/emulsifier 6%	-	Effect type "A"

18.7 Delete the square brackets around this sub-section.

18.7.1.1 Insert the following sentence before the existing text: "This test is not intended for classification but is included in this Manual for evaluating the suitability for transport in tanks."

18.7.1.4 Replace "classified in Division 5.1" with "transported in tanks" in the first sentence.

Section 31

Insert a new section 31 with the text of **ST/SG/AC.10/C.3/2002/48**, with the following modifications:

Replace "foam test" with "foam flammability test" throughout the document.

31.2.1 Add a note at the end to read as follows: "**NOTE:** *Aerosol dispensers not submitted to flammability classification procedures in this sub-section shall be classified as extremely flammable.*"

31.3.3 Insert "one of" before "the methods described".

31.3.4 Amend to read as follows:

31.3.4 In the case of foam aerosols, the classification shall be made on the basis of the results of the foam flammability test (see sub-section 31.6 of this Manual).

(a) The aerosol product shall be classified as extremely flammable if:

(i) The flame height is 20 cm or more and the flame duration is 2 s or more; or

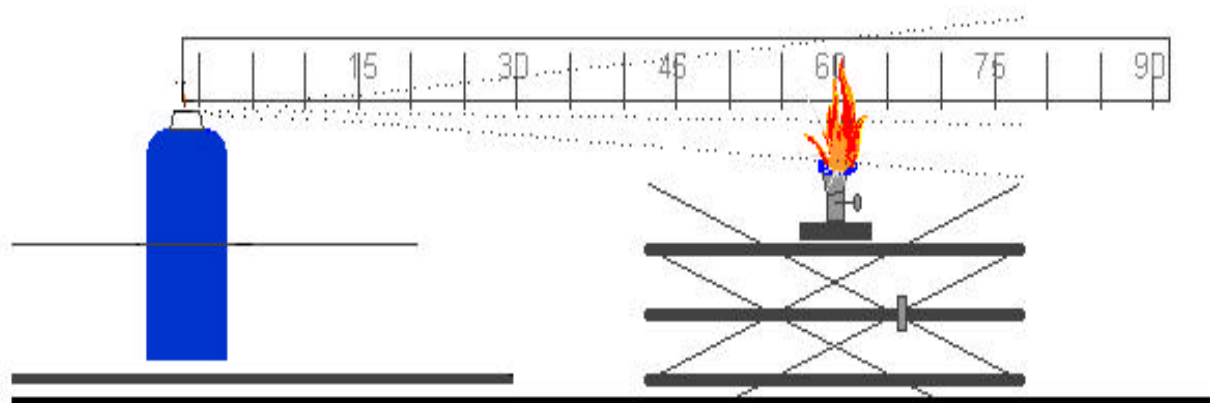
(ii) The flame height is 4 cm or more and the flame duration is 7 s or more;

(b) The aerosol product which does not meet the criteria in (a) is classified as flammable if the flame height is 4 cm or more and the flame duration is 2 s or more."

Figure 31.2 In the last box on the left hand side, replace "or" with "or".

Figure 31.3 On the left hand side, replace "or" with "or" in the second box and "and" with "and" in the third box.

Figure 31.4.1 Replace the existing figure with the following one:



31.5.3.3 Delete "the result of" and move this paragraph to sub-section 31.4 as new paragraph 31.4.3.2.3.

31.5.4.4 Insert "(see sub-section 31.4 of this Manual)" after "ignition distance test" in the first sentence.

31.6.4.2 Replace "20 m" with "20 cm".

Section 37

Insert a new section 37 with the text of **ST/SG/AC.10/C.3/2002/6**, with the following modifications:

Under point 10: 37.4 Amend to read: "TEST METHODS FOR CORROSION TO METALS".

37.4.1 Insert "the" after "determining", replace "liquid substances and solid substances" with "liquids and solids" and delete "or being hygroscopic in terms of requirements for classification" and "(UNO)".

Under point 11: In the proposed text for "(f)", replace "Corrosion of corrosive" with "Corrosive properties of".

Under point 12, amend the proposed text for section 37 as follows:

37.1.1 Delete "of the corrosion" in the first sentence, replace the second sentence with the following: "The test method for corrosion is given in sub-section 37.4 of this Manual." and add at the end the following text:
"The method for determining corrosion to skin is provided in OECD Guideline 404 and the criteria is provided in Chapter 2.8 of the Model Regulations. If a substance is shown to be corrosive to skin, then it is not necessary to conduct the tests for metal corrosion for purposes of classification."

37.3 Amend the first sentence to read as follows: "The following test procedures are designed to assess the corrosion hazard for an appropriate classification for transport."

37.3.1 Delete this paragraph and figure 37.3.1.

- 37.4 Amend the title to read: "Test methods for corrosion to metals".
- 37.4.1 Insert a new 37.4.1 with the heading "Introduction" and renumber existing 37.4.1 as 37.4.1.1.
- 37.4.1.1 (former 37.4.1) Insert "the" after "determining", replace "liquid substances and solid substances" with "liquids and solids" and delete "or being hygroscopic in terms of requirements for classification" and "(UNO)".
- 37.4.1.1 Delete the heading and the paragraph under the heading.
- 37.4.1.2 Delete the first paragraph under the heading, add "the" after "For exposure to" in the sentence before the indents and add the following at the end of the second indent: "ISO 3574 or Unified Numbering System (UNS) G10200". All the text of the second indent shall be kept in square brackets.

In the text immediately before Figure 2, amend the first sentence to read: "At least 3 sets of specimens shall be used for each metal (aluminium, steel)." and replace "samples" with "specimens".

In the paragraph after figure 2, replace "corrosive medium" with "the substance being classified", delete the last sentence and add the following text at the end: "Very long testing periods without changing the solution will sometimes give negative results. To get correct results and to avoid re-testing, the following items should be taken into account:

- (a) fresh solutions shall be provided during the course of the test;
- (b) the volume should be large enough to avoid any appreciable change in its corrosivity during the test;
- (c) if problems are expected, the composition should be checked by analysis at the end of the test to determine the extent of change in composition, such as might result from evaporation or depletion."

- 37.4.1.3 Amend the first paragraph as follows:

First sentence: Replace "grid" with "grit".

Second sentence: Replace "removal of" with "removing the" and "the" with "an" before "ultrasound". Delete "the" before "degreasing" and insert a comma after "acetone".

Fourth sentence: Replace "Sheets" with "Specimens".

Sixth sentence: Replace "(specially on Al-samples)" with "unless appropriate measures are taken to preserve the samples for further testing."

Seventh sentence: Replace "set" with "test" and "has completely to" with "shall".

Eight sentence: Replace "is supposed to" with "shall".

Tenth sentence: Replace "should" with "shall" and "constant and should be reached in" with "throughout the test including".

Amend the second paragraph as follows:

Third sentence: Replace "Only in case of not mechanically " with "For non-mechanically".

Fourth sentence: Insert "the" before "pickling solution".

Sixth sentence: Delete "the" before "final", replace "the" with "an" before "ultrasound", insert a comma after "bath", replace "drying" with "once dry," and "are going to" with "shall".

37.4.1.4 Amend the sentence under the heading to read: "2 types of corrosion behaviour need to be distinguished."

37.4.1.5 In the first sentence, insert "the" before "weight" and replace "strongest attacked" with "the most corroded".

Amend the second sentence to read: "The test is considered positive if for any specimen the weight loss on the metal specimen is more that the amount stated in the following table:".

Amend the text under the table to read: "**NOTE:** *These values are calculated...*" and delete the second sentence ("So within exposure... following dimensions.").

Delete table 2. As a consequence, existing table 3 becomes table 2.

37.4.1.6 In the first sentence, replace "In case of" with "When" and insert "occurs" after "corrosion". In the second sentence, replace "Deepest" with "If the deepest", replace "shall not exceed" with "exceeds" and add, at the end: "the result is considered positive.".

37.4.1.7 to
37.4.19 Delete these paragraphs.
