

# UN/SCETDG/16/INF8

## COMMITTEE OF EXPERTS ON THE TRANSPORT OF DANGEROUS GOODS

Sub-Committee of Experts on the  
Transport of Dangerous Goods  
(Sixteenth session, Geneva, July 5-16, 1999,  
agenda item 5 (c))

### MISCELLANEOUS DRAFT AMENDMENTS TO THE MODEL REGULATIONS ON THE TRANSPORT OF DANGEROUS GOODS

#### A Comparison of Limited Quantities Requirements

#### Transmitted by the Expert from the United States of America

1. The Committee of Experts on the Transport of Dangerous Goods agreed that limited quantity provisions should be reviewed during the current biennium. This document provides a comparison of the maximum capacities for inner packagings and the maximum gross masses for outer packagings applicable to limited quantities for various substances authorized to be transported under limited quantity exceptions provided in various transport regulations. The comparison takes into account the requirements in the UN Model Regulation, the IMDG Code, the RID/ADR Agreements and the US Hazardous Materials Regulations. The limitations in the ICAO Technical Instructions were not taken into account because they are generally more restrictive due to the safety concerns related to transport by aircraft. The comparison provides comments highlighting the differences amongst the various regulations.
2. The Sub-Committee is invited to review the comparison and to decide on how the quantity limits could be harmonized amongst the existing regulations applicable to the transport of limited quantities of dangerous goods.

| COMPARISON OF LIMITED QUANTITY INNER PACKAGING MAXIMUM CAPACITIES/ OUTER PACKAGING GROSS MASS |     |   |   |  |   |   |
|---|-----|---|---|--|---|---|
| CLASS   | PG  | CFR                                       | IMDG  | RID/ADR  | UN MODEL REGULATION   | COMMENTS  |
| 1   |     | -   | -   | -  | -   |   |
| 2   |     | 120 ml/30 kg<br>1 L/30kg                  | 120 ml*/30 kg<br>1 L**/30kg<br>*max inner cap. For metal plastic or glass pkg.<br>**for aerosols, except severe marine pollutants | 120ml/30kg<br>1L*/30kg<br>*for articles of 5A, 5O and 5F only.                             | 120ml/30kg<br>1L*/30kg<br>*for aerosols not containing toxic substances | IMDG excludes gases which exhibit a flammable, corrosive, oxidizing, or toxic risk except for aerosols. RID/ADR excludes gases of TF, TC, TO, TFC and TOC except when in articles.              |
| 3   | I   | 500 ml/30kg, some substances are excluded | Not allowed   | 500ml/1L except UN 3064, 1204 and substances with f.p. below 23° C and toxic or corrosive. | Not allowed   | Only CFR and RID/ADR allow Class 3 PG I substances in limited quantities.   |
|   | II  | 1 L/30kg                                  | 1 L/30kg  | 3 L/12L  | 1 L/30kg  | RID/ADR allows 3L but their outer package maximum capacity is only 3 litres. RID/ADR has a 5L/20L limit for UN 3065, 1133, 1139, 1169, 1197, 1210, 1263, 1266, 1287, 1306, 1866, 1999 and 3269. |
|   | III | 5 L/30kg                                  | 5 L/30kg  | 5 L/45L  | 5 L/30kg  | RID/ADR has a 45L outer packaging limit. All other regulations have 30kg outer packaging limits.  |
| 4.1   | II  | 1 kg/30kg                                 | 500 g/30kg  | 3 kg/12kg  | 500 g/30kg  | CFR and RID/ADR have higher inner packaging limits. RID/ADR has a 12kg outer packaging limit. All other regulations have 30kg outer packaging limits.   |
|   | III | 5 kg/30kg                                 | 3 kg/30kg   | 6 kg/24kg  | 3 kg/30kg   | CFR and RID/ADR have higher inner packaging limits. RID/ADR has a 24kg outer packaging limit. All other regulations have 30kg outer packaging limits.   |
| 4.3   | II  | 500 g/30kg                                | 500 g/30kg  | 500 ml-500 g/30kg except UN 1396   | 500 g/30kg  | This is harmonized except for the RID/ADR exception for UN 1396. This exception does not apply in other regulations.  |
|   | III | 1 kg/30kg                                 | 1 kg/30kg   | 1 L-1 kg/30kg  | 1 kg/30kg   | This is harmonized except for the RID/ADR exception for UN 1396. This exception does not apply in other regulations.  |
| 5.1   | II  | 1L-1 kg/30kg                              | 500 g/30kg  | 500ml-500 g/30kg   | 500 g/30kg  | CFR has higher inner packaging limits. All other regulations have 500g-500ml inner packaging limits.  |
|   | III | 4L-5kg/30kg                               | 1 kg/30kg   | 1 L-1 kg/30kg  | 1 kg/30kg   | CFR has higher inner packaging limits. All other regulations have 1kg-1L inner packaging limits.  |

| COMPARISON OF LIMITED QUANTITY INNER PACKAGING MAXIMUM CAPACITIES/ OUTER PACKAGING GROSS MASS |     |  |  |  |  |  |
|---|-----|--|--|--|--|--|
| CLASS   | PG  | CFR  | IMDG   | RID/ADR  | UN MODEL REGULATION  | COMMENTS   |
| 5.2 Liquid  | II  | (For types D, E or F 125 ml, for types B or C 25ml)/30kg except no temperature controlled substances | (For types D, E or F 125 ml, for types B or C 25ml)/30kg except no temperature controlled substances | (For types D, E or F 125 ml, for types B or C 25ml)/30kg except no temperature controlled substances | (For types D, E or F 125 ml, for types B or C 25ml)/30kg except no temperature controlled substances | These are harmonized.  |
| 5.2 Solid   | II  | (For types D, E or F 500g, for types B or C 100g)/30kg   | (For types D, E or F 500g, for types B or C 100g)/30kg   | (For types D, E or F 500g, for types B or C 100g)/30kg   | (For types D, E or F 500g, for types B or C 100g)/30kg   | These are harmonized.  |
| 6.1   | II  | Not allowed  | 100 ml-500g*/30kg<br>*For severe marine pollutants 500ml-500g  | 500 ml-1kg/2L-4kg  | 100 ml-500g/30kg   | RID/ADR has a 2 litre (liquids)/4kg (solids) outer packaging limit. All other regulations have 30kg outer packaging limits.  |
|   | III | 4 L-5kg/30kg   | 1 L-1kg*/30kg  | 3 L-6kg/12L-20kg   | 1 L/30kg   | RID/ADR has a 12 litre (liquids)/20kg (solids) outer packaging limit. All other regulations have 30kg outer packaging limits.  |
| 8   | I   | Not allowed  | Not allowed  | 100ml-500g/400ml-2kg   | Not allowed  | RID/ADR is the only regulation which allows Class 8, PG I in limited quantities.   |
|   | II  | 1L-1 kg/30kg   | 500ml*-1 kg/30kg<br>*glass, porcelain or earthenware must be in rigid intermediate pkgs.             | 1L-3 kg/4L-12kg  | 1L-1 kg/30kg   | RID/ADR has a 4 litre (liquids)/12kg (solids) outer packaging limit. All other regulations have 30kg outer packaging limits.   |
|   | III | 4 L-5kg/30kg   | 1L*-2kg*/30kg<br>*500ml-500g for severe marine pollutants  | 3 L-6kg/12L-24kg   | 1 L-2kg/30kg   | RID/ADR has a 12 litre (liquids)/24kg (solids) outer packaging limit. All other regulations have 30kg outer packaging limits.  |
| 9   | II  | 5L-5kg/30kg  | 1 L*-3kg*/30kg<br>*500ml-500g for severe marine pollutants   | 500ml-1kg/2L-4kg   | Not allowed  | RID/ADR has a 2 litre (liquids)/4kg (solids) outer packaging limit.  |
|   | III | 5L-5kg/30kg  | 5 L*-5kg*/30kg<br>*500ml-500g for severe marine pollutants   | 3L-6kg/12L-24kg<br>500ml/2L for 2315, 3151 and 3152  | 5 L-5kg/30kg   | RID/ADR has a 12 litre (liquids)/24kg (solids) outer packaging limit. All other regulations have 30kg outer packaging limits. IMDG excludes UN Nos. 2212, 2590, 2315, 3151 and 3152 (asbestos, PCBs and PHBs). UN only includes 1941, 1990, 2071, 3077 and 3082. |