

# INF. 25

## COMMITTEE OF EXPERTS ON THE TRANSPORT OF DANGEROUS GOODS

Twentieth session Geneva, 7-16 December 1998  
Agenda item 2(a)

### PORTABLE TANK REQUIREMENTS

#### Comments on ST/SG/AC.10/1998/53

#### Transmitted by the expert from the United Kingdom

1. The UK is very supportive of the work undertaken by the expert from the USA in applying a rationalised approach to assigning portable tank requirements to substances. The revised proposals contained in ST/SG/AC.10/1998/53 represent the culmination of considerable work, and the UK is very anxious for this matter to be completed by the end of the current biennium. This INF paper provides a few comments.
  2. On the whole the UK fully supports the proposals in ST/SG/AC.10/1998/53. However, the UK has reservations about the approach taken in allocating tank requirements to substances with possible inhalation toxicity characteristics. The fifteenth session of the Sub-Committee in July 1998 concluded, after a vote on the principles, not to include additional provisions relating to substances toxic by inhalation, and it was agreed that the need for such work in the next biennium would be considered by the Committee. Therefore, the UK does not agree with paragraph 6 of ST/SG/AC.10/1998/53 which proposes special portable tank provisions for toxic by inhalation substances, especially as these new requirements are significantly more stringent than the current requirements. The UK feels it inappropriate to include such additional requirements at this stage, but rather than hold up the adoption of rationalised approach to portable tank assignment considers that the general approach already agreed for substances for Class 6.1 should be sufficient and would retain existing safety standards.
  3. The UK therefore proposes that, in paragraph 6.18 of Annex II to ST/SG/AC.10/1998/53, "(non-inhalation hazard)" be deleted, and the entire paragraph 6.19 either deleted, or placed in square brackets, depending upon the decision of the Committee whether toxic by inhalation substances should be in the work programme for the next biennium. The consequential changes to the allocation of T-codes are detailed in the attached Annex.
  4. In addition, paragraph 6.9 of Annex II to ST/SG/AC.10/1998/53 is not consistent with previous discussions in the ad hoc working group for Division 4.3 PG II and III. The nearest T-code to that agreed in the ad hoc group is T7, not T11, and the UK proposes that the relevant editorial changes be made to paragraph 6.9. This only affects UN 3207, PG II and PG III, and their allocation should change from T11 to T7.
  4. There also appears to be a few minor errors:-
    - (i) UN 1746 BROMINE TRIFLUORIDE - use of the rationalised approach suggests that T22, not T20.
    - (ii) UN 2015 HYDROGEN PEROXIDE STABILISED and UN 1873 PERCHLORIC ACID (both Class 5.1 PGI with subsidiary risk 8) - use of rationalised approach suggests T10, not T9.
- ANNEX (see para 3).**

UN number	Description	Proposed T-Code	Consequences
2605	Methoxymethyl Isocyanate	T14	Now follows paragraph 6.6 rationalised approach for Class 3 PG I, subsidiary risk 6.1. More onerous requirements (6 bar rather than 4 bar) compared to UN 9th edition.
2483	Isopropyl Isocyanate	T14	Now follows paragraph 6.6 rationalised approach for Class 3 PG I, subsidiary risk 6.1. More onerous requirements (6 bar rather than 4 bar) compared to UN 9th edition.
2481	Ethyl Isocyanate	T14	Now follows paragraph 6.6 of rationalised approach for Class 3 PG I, subsidiary risk 6.1. More onerous requirements (6 bar rather than 4 bar) compared to UN 9th edition.
2486	Isobutyl Isocyanate	T7	Now follows paragraph 6.4 rationalise approach for Class 3 PG II, subsidiary risk 6.1. More onerous test pressure requirements than UN 9th edition, although 3 bottom openings now allowed.
1892	Ethylidichloroarsine	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. same requirements as UN 9th edition.
1672	Phenyl Carbylamine	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements (6 bar rather than 4 bar) compared to UN 9th edition.
1670	Perchloromethyl mercaptan	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements (6 bar rather than 4 bar) compared to UN Recommendations 9th edition.
1613	Hydrocyanic Acid	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements (6 bar rather than 4 bar) compared to UN 9th edition
1605	Ethylene Dibromide	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. slightly more onerous thickness requirements compared to UN 9th edition (6 mm regardless of diameter)
1580	Chloropicrin	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements (6 bar rather than 4 bar) compared to UN 9th edition
1560	Arsenic Trichloride	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements (6 bar rather than 4 bar) compared to UN 9th edition
1553	Arsenic acid, liquid	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. Less onerous requirements (6 mm rather than 8 mm) compared to UN 9th edition
1541	Acetone Cyanohydrin	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements (6 bar rather than 4 bar) compared to UN 9th edition
3006	Thiocarbamate pesticide, liquid,tox	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. - the assignment in Annex 1 to T20 probably a typing error.
2644	Methyl Iodide	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements (6 bar rather than 4 bar, 6 mm regardless of diameter) compared to UN 9th edition
2646	Hexachlorocyclopentadiene	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous (6 bar rather than 4 bar) compared to UN 9th edition
2232	2-Chloroethanal	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements ( 6 mm regardless of diameter) compared to UN 9th edition
1098	Allyl alcohol	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements (6 bar rather than 4 bar, 6 mm regardless of diameter) compared to UN 9th edition
1092	Acrolein,inhibited	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements (6 bar rather than 4 bar) compared to UN Recommendations 9th edition
2382	Dimethylhydrazine, symetrical	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous (6 bar rather than 4 bar) compared to UN 9th edition
1695	Chloroacetone stabilised	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. Less onerous (6 mm rather than 8 mm) compared to UN 9th edition
1722	Allyl Chloroformate	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I.
2334	Allylamine	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous (6 bar rather than 4 bar) compared to UN 9th edition

UN number	Description	Proposed T-Code	Consequences
1239	Methyl Chloromethyl Ether	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous (6 bar rather than 4 bar) compared to UN 9th edition
2488	Cyclohexyl isocyanate	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous (6 bar rather than 4 bar) compared to UN 9th edition
2438	Trimethylacetyl chloride	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous (6 bar rather than 4 bar) compared to UN 9th edition
2521	Diketene	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements (6 bar rather than 4 bar, 6 mm regardless of diameter) compared to UN 9th edition
1251	Methyl Vinyl Ketone	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous (6 bar rather than 4 bar) compared to UN 9th edition
3023	2-methyl-2-heptanethiol	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous (6 bar rather than 4 bar) compared to UN 9th edition
2487	Phenyl Isocyanate	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous (6 mm regardless of diameter, + frangible disc requirement) compared to UN 9th edition
2485	n-Butyl Isocyanate	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. Slightly less onerous (5 mm rather than 6mm for smaller diameter tanks, + no frangible disc requirement) compared to UN 9th edition
3009	Copper based pesticide, liquid, toxic, flammable	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements compared to UN 9th edition
3275	Nitriles, toxic, flammable	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements compared to UN 9th edition
1244	Methylhydrazine	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements (6 bar rather than 4 bar) compared to UN Recommendations 9th edition
2482	n-Propyl Isocyanate	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I.
2477	Methyl Isothiocyanate	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous (6 bar rather than 4 bar) compared to UN 9th edition
2337	Phenyl Mercaptan	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous (6 bar rather than 4 bar) compared to UN 9th edition
2606	Methyl Orthosilicate	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I
2484	tert-Butyl Isocyanate	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I
1238	Methyl Chloroformate	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. Less onerous requirements (6 mm rather than 8 mm) compared to UN 9th edition
1143	Crotonaldehyde	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements (6 bar rather than 4 bar, 6 mm regardless of diameter) compared to UN 9th edition
1135	Ethylene Chlorohydrin	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements (6 mm regardless of diameter) compared to UN 9th edition
1163	Dimethylhydrazine, unsymmetrical	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous requirements (6 bar rather than 4 bar) compared to UN 9th edition
1182	Ethyl Chloroformate	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. Less onerous requirements (6 mm rather than 8 mm) compared to UN 9th edition
1752	Chloroacetyl Chloride	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous (6 bar rather than 4 bar) compared to UN 9th edition
1595	Dimethyl Sulphate	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous (6 bar rather than 4 bar) compared to UN 9th edition
1809	Phosphorus Trichloride	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I. More onerous (6 bar rather than 4 bar) compared to UN 9th edition
3246	Methanesulphonyl Chloride	T14	Now follows paragraph 6.18 rationalised approach for class 6.1 PG I.

UN number	Description	Proposed T-Code	Consequences
1569	Bromoacetone	T7	Now follows paragraph 6.17 rationalised approach for class 6.1 PG II, with or without subsidiary risk. No longer requirement to have a frangible disc (presumably no polymerisation problem)
2668	Chloroacetonitrile	T7	Now follows paragraph 6.17 rationalised approach for class 6.1 PG II, with or without subsidiary risk.
1834	Sulphuryl Chloride	T10	Now follows paragraph 6.23 rationalised approach for Class 8 PG I, with or without subsidiary risk. Less onerous requirements (6 mm rather than 8 mm) compared to UN 9th edition
1828	Sulphur Chlorides	T10	Now follows paragraph 6.23 rationalised approach for Class 8 PG I, with or without subsidiary risk. Less onerous requirements (6 mm rather than 8 mm) compared to UN 9th edition
1829	Sulphur Trioxide, inhibited	T10	Now follows paragraph 6.23 rationalised approach for Class 8 PG I, with or without subsidiary risk. Less onerous requirements (6 mm rather than 8 mm) compared to UN 9th edition
2692	Boron Tribromide	T10	Now follows paragraph 6.23 rationalised approach for Class 8 PG I, with or without subsidiary risk. Less onerous requirements (6 mm rather than 8 mm) compared to UN 9th edition
1754	Chlorosulphonic acid	T10	Now follows paragraph 6.23 rationalised approach for Class 8 PG I, with or without subsidiary risk. Requirements more stringent than UN 9th edition, except 6 mm rather than 8 mm.
2032	Nitric acid, red fuming	T10	Now follows paragraph 6.23 rationalised approach for Class 8 PG I, with or without subsidiary risk. Less onerous requirements (6 mm rather than 8 mm) compared to UN 9th edition
1744	Bromine, or Bromine solution	T22??	Requirements in UN 9th edition were for 12 mm thickness, whereas application of paragraph 6.23 rationalised approach for Class 8 PG I, with or without subsidiary risk would suggest T10, which is satisfactory apart from a much lower thickness of 6 mm - T22 possibly appropriate instead, although not strictly following rationalised approach.
1831	Sulphuric acid, fuming	T10	Now follows paragraph 6.23 rationalised approach for Class 8 PG I, with or without subsidiary risk. Less onerous requirements (6 mm rather than 8 mm) compared to UN 9th edition
1838	titanium Tetrachloride	T7	Now follows paragraph 6.22 rationalised approach for Class 8 PG II, with or without subsidiary risk. Different requirements (4 bar rather than 2.65 bar, 3 bottom openings allowed, no frangible disc required) compared to UN 9th edition
1810	Phosphorus Oxychloride	T7	Now follows paragraph 6.22 rationalised approach for Class 8 PG II, with or without subsidiary risk. Different requirements (4 bar rather than 2.65 bar, no frangible disc required, and thickness reduction from 6mm to 5mm now allowed for small diameter tanks ) compared to UN 9th ed.
2442	Trichloroacetyl Chloride	T7	Now follows paragraph 6.22 rationalised approach for Class 8 PG II, with or without subsidiary risk. Minor thickness reductions now allowed for small diameter tanks.
2826	Ethyl Chlorothioformate	T7	Now follows paragraph 6.22 rationalised approach for Class 8 PG II, with or without subsidiary risk.