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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

Thirty-second session  
Geneva, 3-12 (a.m.) December 2007  
Item 6 of the provisional agenda

**MISCELLANEOUS PROPOSALS OF AMENDMENTS TO THE MODEL  
REGULATIONS ON THE TRANSPORT OF DANGEROUS GOODS**

UN Portable tank and MEGC identification plates

Transmitted by the expert from Canada <sup>\*/</sup>

**Background**

1. UN portable tanks and MEGCs are required to be fitted with a metal identification plate marked as per the requirements outlined in sub-sections **6.7.2.20 Marking** (substances of class 1 and classes 3-9), **6.7.3.16 Marking** (non-refrigerated liquefied gases), **6.7.4.15 Marking** (refrigerated liquefied gases) and **6.7.5.13 Marking** (MEGCs) of the UN Recommendations on the Transport of Dangerous Goods, Model Regulations, 15<sup>th</sup> revised edition.


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<sup>\*/</sup> In accordance with the programme of work of the Sub-Committee for 2007-2008 approved by the Committee at its third session (refer to ST/SG/AC.10/C.3/60, para. 100 and ST/SG/AC.10/34, para. 14) (packing).

## Issues

2. Paragraphs 6.7.2.20.1, 6.7.3.16.1, 6.7.4.15.1 and 6.7.5.13.1 of the Model Regulations require marking of the letters “U” and “N” on the metal identification plate of portable tanks and MEGCs without specifying additional details and without requiring the application of the UN packaging symbol.

3. The following examples are variations of “U” and “N” letter markings now actually seen on UN portable tank or MEGC identification plates:

a)	U N	b)	UN	c)	“UN PORTABLE TANK”	d)	
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4. Requiring the application of the UN packaging symbol on UN portable tank and MEGC identification plates would be consistent with the marking of UN packaging and Intermediate Bulk Containers. This would also facilitate recognition of a “UN” portable tank or MEGC during inspections and enforcement.

5. Furthermore, the current wording of sections 6.7.2.20.1, 6.7.3.16.1, 6.7.4.15.1 and 6.7.5.13.1 mingles the listing of information required to appear on the tank identification plates with the format for this information on the plates and does this in an incomplete and confusing way. In our view this has led to identification plate marking inconsistencies among different tank manufacturers, approval countries and competent authorities. Such inconsistencies increase the risk of misidentification of tank markings and may contribute to incorrect tank selection. We propose below to clarify the list of information required to appear on the identification plates without change in substance and to separately indicate typical identification plate marking formats in new figures.

## Proposals

6. Amend 6.7.2.20.1 to read as follows:

“6.7.2.20.1 Every portable tank shall be fitted with a corrosion resistant metal plate permanently attached to the portable tank in a conspicuous place readily accessible for inspection. When for reasons of portable tank arrangements the plate cannot be permanently attached to the shell, the shell shall be marked with at least the information required by the pressure vessel code. As a minimum, at least the following information shall be marked on the plate by stamping or by any other similar method.

- 1) The country of manufacture
- 2) The UN Packaging Symbol
- 3) The approval country
- 4) The design approval number
- 5) The letters “AA”, if the design was approved under Alternative Arrangements (see 6.7.1.2)
- 6) The manufacturer’s name or mark
- 7) The manufacturer's serial number

- 8) The authorized body for the design approval
- 9) The owner's registration number
- 10) The year of manufacture
- 11) The pressure vessel code to which the shell is designed
- 12) The test pressure [in kPa gauge or bar gauge]<sup>2</sup>
- 13) The MAWP [in kPa gauge or bar gauge]<sup>2</sup>
- 14) The external design pressure<sup>3</sup> [in kPa gauge or bar gauge]<sup>2</sup>
- 15) The design temperature range [in °C]<sup>2</sup>
- 16) The tank water capacity at 20 °C [in Litres]<sup>2</sup>
- 17) The water capacity of each compartment at 20 °C [in Litres]<sup>2</sup> (when applicable)
- 18) The initial pressure test date [month and year] and witness identification
- 19) The MAWP for heating/cooling system [in kPa gauge or bar gauge]<sup>2</sup> (when applicable)
- 20) The shell material(s) and material standard reference(s)
- 21) The equivalent thickness in reference steel [in mm]<sup>2</sup>
- 22) The lining material (when applicable)
- 23) The date [month and year], type and test pressure [in kPa gauge or bar gauge]<sup>2</sup> of the most recent periodic test(s)
- 24) The stamp of the expert who performed or witnessed the most recent test

*Note: For the identification of the substances being transported, see also Part 5.*

**Footnotes:**

<sup>2</sup> *The unit used shall be marked.*

<sup>3</sup> *See 6.7.2.2.10.*

Figure 6.7.2.20.1: Typical Identification plate format

Owner's Registration Number			
<b>MANUFACTURING INFORMATION</b>			
Country of Manufacture			
Manufacturer's Name or Mark			
Year of Manufacture			
Manufacturer's Serial Number			
<b>APPROVAL INFORMATION</b>			
	Approval Country		
	Authorized Body For Design Approval		
Design Approval Number			
"AA" (If Applicable)			
Shell Design Code (Pressure Vessel Code)			
<b>PRESSURES</b>			
MAWP [bar or kPa gauge]			
Test Pressure [bar or kPa gauge]			
Initial Pressure Test Date [mm/yyyy]:		Witness Stamp:	
External Design Pressure [bar or kPa gauge]			
MAWP For Heating/Cooling System [bar or kPa gauge] (If Applicable)			
<b>TEMPERATURES</b>			
Design Temperature Range [°C]			
<b>MATERIALS</b>			
Shell Material(s) and Material Standard References			
Equivalent Thickness in Reference Steel [mm]			
Lining Material (If Applicable)			
<b>CAPACITIES</b>			
Water Capacity at 20°C [L]			
Water Capacity of Compartment ___ at 20°C [L] (As applicable, for multi-compartment tanks)			
Water Capacity of Compartment ___ at 20°C [L] (As applicable, for multi-compartment tanks)			
<b>PERIODIC INSPECTIONS / TESTS</b>			
Test Type	Test Date [mm/yyyy]	Test Pressure [bar or kPa gauge]	Witness Stamp

7. Amend 6.7.3.16.1 to read as follows:

“6.7.3.16.1 Every portable tank shall be fitted with a corrosion resistant metal plate permanently attached to the portable tank in a conspicuous place readily accessible for inspection. When for reasons of portable tank arrangements, the plate cannot be permanently attached to the shell, the shell shall be marked with at least the information required by the pressure vessel code. As a minimum, at least the following information shall be marked on the plate by stamping or by any other similar method.

- 1) The country of manufacture
- 2) The UN Packaging Symbol
- 3) The approval country
- 4) The design approval number
- 5) The letters “AA”, if the design was approved under Alternative Arrangements (see 6.7.1.2)
- 6) The manufacturer’s name or mark
- 7) The manufacturer's serial number
- 8) The authorized body for the design approval
- 9) The owner's registration number
- 10) The year of manufacture
- 11) The pressure vessel code to which the shell is designed
- 12) The test pressure [in kPa gauge or bar gauge]<sup>2</sup>
- 13) The MAWP [in kPa gauge or bar gauge]<sup>2</sup>
- 14) The external design pressure<sup>5</sup> [in kPa gauge or bar gauge]<sup>2</sup>
- 15) The design temperature range [in °C]<sup>2</sup>
- 16) The design reference temperature [in °C]<sup>2</sup>
- 17) The tank water capacity at 20 °C [in Litres]<sup>2</sup>
- 18) The initial pressure test date [month and year] and witness identification
- 19) The shell material(s) and material standard reference(s)
- 20) The equivalent thickness in reference steel [in mm]<sup>2</sup>
- 21) The date [month and year], type and test pressure [in kPa gauge or bar gauge]<sup>2</sup> of the most recent periodic test(s)
- 22) The stamp of the expert who performed or witnessed the most recent test


*Note: For the identification of the non-refrigerated liquefied gas(es) being transported, see also Part 5.*

Footnotes:

<sup>2</sup> *The unit used shall be marked.*

<sup>5</sup> *See 6.7.3.2.8.*

Figure 6.7.3.16.1: Typical Identification plate format

Owner's Registration Number			
<b>MANUFACTURING INFORMATION</b>			
Country of Manufacture			
Manufacturer's Name or Mark			
Year of Manufacture			
Manufacturer's Serial Number			
<b>APPROVAL INFORMATION</b>			
	Approval Country		
	Authorized Body For Design Approval		
Design Approval Number			
"AA" (If Applicable)			
Shell Design Code (Pressure Vessel Code)			
<b>PRESSURES</b>			
MAWP [bar or kPa gauge]			
Test Pressure [bar or kPa gauge]			
Initial Pressure Test Date [mm/yyyy]:		Witness Stamp:	
External Design Pressure [bar or kPa gauge]			
<b>TEMPERATURES</b>			
Design Temperature Range [°C]			
Design Reference Temperature [°C]			
<b>MATERIALS</b>			
Shell Material(s) and Material Standard References			
Equivalent Thickness in Reference Steel [mm]			
<b>CAPACITY</b>			
Water Capacity at 20°C [L]			
<b>PERIODIC INSPECTIONS / TESTS</b>			
Test Type	Test Date [mm/yyyy]	Test Pressure [bar or kPa gauge]	Witness Stamp

”

8. Amend 6.7.4.15.1 to read as follows:

“6.7.4.15.1 Every portable tank shall be fitted with a corrosion resistant metal plate permanently attached to the portable tank in a conspicuous place readily accessible for inspection. When for reasons of portable tank arrangements, the plate cannot be permanently attached to the shell, the shell shall be marked with at least the information required by the pressure vessel code. As a minimum, at least the following information shall be marked on the plate by stamping or by any other similar method:


- 1) The country of manufacture
- 2) The UN Packaging Symbol
- 3) The approval country
- 4) The design approval number
- 5) The letters “AA”, if the design was approved under Alternative Arrangements (see 6.7.1.2)
- 6) The manufacturer’s name or mark
- 7) The manufacturer's serial number
- 8) The authorized body for the design approval
- 9) The owner's registration number
- 10) The year of manufacture
- 11) The pressure vessel code to which the shell is designed
- 12) The test pressure [in kPa gauge or bar gauge]<sup>2</sup>
- 13) The MAWP [in kPa gauge or bar gauge]<sup>2</sup>
- 14) The minimum design temperature [in °C]<sup>2</sup>
- 15) The tank water capacity at 20 °C [in Litres]<sup>2</sup>
- 16) The initial pressure test date [month and year] and witness identification
- 17) The shell material(s) and material standard reference(s)
- 18) The equivalent thickness in reference steel [in mm]<sup>2</sup>
- 19) The date [month and year], type and test pressure [in kPa gauge or bar gauge]<sup>2</sup> of the most recent periodic test(s)
- 20) The stamp of the expert who performed or witnessed the most recent test
- 21) Either “thermally insulated” or “vacuum insulated” (as applicable)
- 22) The effectiveness of the insulation system (heat influx) [in W]<sup>2</sup>
- 23) The name, in full, of the gas(es) for whose transport the portable tank is approved
- 24) For each refrigerated liquefied gas permitted to be transported in the portable tank, the reference holding time [in days or hours]<sup>2</sup>, initial pressure [in kPa gauge or bar gauge]<sup>2</sup> and degree of filling [in kg]<sup>2</sup>.

*Note: For the identification of the refrigerated liquefied gas(es) being transported, see also Part 5.*

Footnote:

<sup>2</sup> *The unit used shall be marked.*

Figure 6.7.4.15.1: Typical Identification plate format

Owner's Registration Number			
<b>MANUFACTURING INFORMATION</b>			
Country of Manufacture			
Manufacturer's Name or Mark			
Year of Manufacture			
Manufacturer's Serial Number			
<b>APPROVAL INFORMATION</b>			
	Approval Country		
	Authorized Body For Design Approval		
Design Approval Number			
"AA" (If Applicable)			
Shell Design Code (Pressure Vessel Code)			
<b>PRESSURES</b>			
MAWP [bar or kPa gauge]			
Test Pressure [bar or kPa gauge]			
Initial Pressure Test Date [mm/yyyy]:		Witness Stamp:	
<b>TEMPERATURES</b>			
Minimum Design Temperature [°C]			
<b>MATERIALS</b>			
Shell Material(s) and Material Standard References			
Equivalent Thickness in Reference Steel [mm]			
<b>CAPACITY</b>			
Water Capacity at 20°C [L]			
<b>INSULATION</b>			
"Thermally Insulated" or "Vacuum Insulated" (As Applicable)			
Heat Influx [W]			
<b>HOLD TIMES</b>			
Refrigerated Liquefied Gas(es) Permitted	Reference Hold Time [days or hours]	Initial Pressure [bar or kPa gauge]	Degree of Filling [kg]
<b>PERIODIC INSPECTIONS / TESTS</b>			
Test Type	Test Date [mm/yyyy]	Test Pressure [bar or kPa gauge]	Witness Stamp

9. Amend 6.7.5.13.1 to read as follows:


“6.7.5.13.1 Every MEGC shall be fitted with a corrosion resistant metal plate permanently attached to the MEGC in a conspicuous place readily accessible for inspection. The metal plate shall not be affixed to the elements. The elements shall be marked in accordance with Chapter 6.2. As a minimum, at least the following information shall be marked on the plate by stamping or by another similar method:

- 1) The country of manufacture
- 2) The UN Packaging Symbol
- 3) The approval country
- 4) The design approval number
- 5) The letters “AA”, if the design was approved under Alternative Arrangements (see 6.7.1.2)
- 6) The manufacturer’s name or mark
- 7) The manufacturer's serial number
- 8) The authorized body for the design approval
- 9) The year of manufacture
- 10) The test pressure [in kPa gauge or bar gauge]<sup>2</sup>
- 11) The design temperature range [in °C]<sup>2</sup>
- 12) The number of elements
- 13) The total water capacity [in Litres]<sup>2</sup>
- 14) The initial pressure test date [month and year] and identification of the authorized body
- 15) The date [month and year] and type of the most recent periodic tests
- 16) The stamp of the authorized body who performed or witnessed the most recent test

Footnote:

<sup>2</sup> *The unit used shall be marked.*

Figure 6.7.5.13.1: Typical Identification plate format

<b>MANUFACTURING INFORMATION</b>			
Country of Manufacture			
Manufacturer's Name or Mark			
Year of Manufacture			
Manufacturer's Serial Number			
<b>APPROVAL INFORMATION</b>			
	Approval Country		
	Authorized Body For Design Approval		
Design Approval Number			
"AA" (If Applicable)			
<b>PRESSURES</b>			
Test Pressure [bar or kPa gauge]			
Initial Pressure Test Date [mm/yyyy]:		Authorized Body:	
<b>TEMPERATURES</b>			
Design Temperature Range [°C]			
<b>CAPACITY</b>			
Total Water Capacity at 20°C [L]			
Number of Elements			
<b>PERIODIC INSPECTIONS / TESTS</b>			
Test Type	Test Date [mm/yyyy]	Authorized Body	

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