Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

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Sub-Committee of Experts on the Transport of Dangerous Goods

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Item 3 of the provisional agenda
Listing, classification and packing

Classification and packagings for infectious waste of Category A

Transmitted by the expert from Canada

Introduction

1. Canada welcomes the document from Germany on packagings for infectious substances of Category A (ST/SG/AC.10/C.3/2016/9).

2. The expert from Canada supports the principle of revising the packaging provisions for infectious substances to overcome the problems encountered in practice in the context of the recent Ebola outbreak.

3. One of the main problems encountered in transport was that the packagings available on the market were not suitable for the size and quantity of waste generated from caring for a patient suspected or known to be contaminated with the Ebola virus, nor for the clean-up that followed. Any material such as personal protective equipment, medical instruments, material used for cleaning hospital or supplies used for clinical laboratory testing that was used during the Ebola outbreak was considered to be infectious substances of Category A and had to be discarded and transported in packagings meeting the provisions of packing instruction P620.

4. The packagings authorized in packing instruction P620 are suitable for transporting small volumes of infectious substances of Category A such as cultures and specimens. However, they are not adequate for transporting large volumes of infectious substances of Category A, such as the size and quantity of waste generated during the Ebola outbreak.

5. Packagings selected in accordance with Packing Instruction P620 must also comply with the provisions of Chapter 6.3. Some of the testing requirements referred to in Chapter 6.3 may not be applicable when transporting infectious substances of Category A as waste – specimen provisions are not needed when transporting waste. For example, the capability of primary receptacles or secondary packagings to withstand a minimum internal pressure of 95 kPa when the infectious waste is transported by road may be too stringent and unnecessary. Similarly, the capability of primary receptacles or secondary packagings to withstand temperatures in the range of – 40 °C to + 55 °C may not be necessary, given that protecting the integrity of the infectious waste is not required.

6. As a result, the expert from Canada proposes to create either a new UN entry for infectious waste of Category A or a descriptive entry for waste of Category A assigned to UN2814 and UN2900. Two new packing instructions would be assigned to this entry; one for the use of packagings and one for the use of large packagings.

7. The expert proposes that the two new packing instructions be based on packing instructions P621 and LP621. However, the construction provision would require the use of a triple packaging and the outer packaging would have to meet the testing, marking and registration requirements found in Chapter 6.1 for packagings and Chapter 6.6 for large packagings.

8. A competent authority approval would still be recommended due to the sensitivity of the subject. However, these two new packing instructions would provide a basis for determining the type of packagings suitable for transporting infectious waste of Category A.

9. The purpose of this approach is develop a means for packaging these types of infectious waste that is both practical and safe, and using materials available in hospitals and epidemic areas.

Classification

Option 1

UN Number	Shipping Name and Description	Class	Packing Group / Category	Special Provisions	Packing Instruction
UN2814	INFECTIOUS SUBSTANCE, AFFECTING HUMANS	6.2	Category A	318 341 3XX	P620 P6XX LP6XX
UN2900	INFECTIOUS SUBSTANCE, AFFECTING ANIMALS only	6.2	Category A	318 341 3XX	P620 P6XX LP6XX

Special Provision 3XX:

INFECTIOUS SUBSTANCE, AFFECTING HUMANS and INFECTIOUS SUBSTANCE, AFFECTING ANIMALS only, transported as Clinical Waste, (Bio) Medical Waste or Regulated Medical Waste of Category A may be packaged in accordance with Packing Instruction P6XX or LP6XX.

Option 2

UN Number	Shipping Name and Description	Class	Packing Group / Category	Special Provisions	Packing Instruction
UN3XXX	Clinical Waste, (Bio)Medical Waste or Regulated Medical Waste, N.O.S.	6.2	Category A	318	P6XX LP6XX

Packing Instructions

The packing instruction for the packagings would be:

P6XX	PACKING INSTRUCTION	P 6XX

This instruction applies to UN No.35XX (or Clinical, (Bio)medical or Regulated waste of Category A)

The following packagings are authorized provided the general provisions of 4.1.1 and 4.1.3 are met:

1) The packaging shall consists of at least three components:
   a) leakproof primary packaging(s)
   b) a leakproof secondary packaging(s)
   c) an outer packaging conforming to the packing group II performance level for liquids:
   Drums (1A2, 1B2, 1N2, 1H2);
   Jerricans (3A2, 3B2, 3H2).
2) Each secondary packaging shall contain only one primary packaging.
3) When flexible primary and secondary packagings are used they shall be plastic bags hermetically sealed such that the bags are capable of being maintained in an inverted position with the closed end facing downward during a period of 5 minutes without leakage. The plastic film from which the bags are made shall also have an impact resistance of at least 165g determined by ISO 7765-1988 " Plastics film and sheeting - Determination of impact resistance by the free-falling dart method - Part 1: " Staircase methods " and have a tear resistance of at least 480g in both parallel and perpendicular planes with respect to the length of the bag determined by ISO 6383-2 : 1983 " Plastics - film and sheeting - determination of tear resistance - Part 2: Elmendorf method ". The gross mass of a sealed plastic bag used as a primary packaging must be equal to or less than 10kg.
4) If the presence of residual liquid in the primary packaging cannot be excluded, absorbent material in sufficient quantity to absorb all the liquid that may be present shall be inserted in the outer packaging.

Additional requirement:

1. The specific implementation of this Packing Instruction shall be approved by the Competent Authority.
2. The exterior surface of the primary and secondary packagings shall be disinfected before being loaded into the outer packaging respectively. The outer packagings shall be disinfected prior to being reused. The disinfection shall be done in accordance with the recommendations of the Competent Public Health Authority.
3. Before being contained in the primary packaging, sharp objects such as broken glass and needles shall be contained in a packaging resistant to puncture and able to retain liquids under the performance test conditions in Chapter 6.1.

The packing instruction for the large packagings would be

LP6XX	**PACKING INSTRUCTION**	**LP 6XX**
This instruction applies to UN No.35XX (or Clinical, (Bio)medical or Regulated waste of Category A)		
The following packagings are authorized provided the general provisions of 4.1.1 and 4.1.3 are met: 1) The packaging shall consists of at least three components: a) leakproof primary packaging(s) b) leakproof secondary packaging(s) c) a large packaging conforming to the packing group II performance level for liquids: steel (50A) ; aluminium (50B) ; rigid plastics (50H) ; metal other than steel or aluminium (50N). 2) When flexible primary and secondary packagings are used they shall be plastic bags hermetically sealed such that the bags are capable of being maintained in an inverted position with the closed end facing downward during a period of 5 minutes without leakage. The plastic film from which the bags are made shall also have an impact resistance of at least 165g determined by ISO 7765-1988 " Plastics film and sheeting - Determination of impact resistance by the free-falling dart method - Part 1: " Staircase methods " and have a tear resistance of at least 480g in both parallel and perpendicular planes with respect to the length of the bag determined by ISO 6383-2 : 1983 " Plastics - film and sheeting - determination of tear resistance - Part 2: Elmendorf method ". The gross mass of a sealed plastic bag used as a primary packaging must be equal to or less than 10kg. 3) If the presence of residual liquid in the primary packaging cannot be excluded, absorbent material in sufficient quantity to absorb all the liquid that may be present shall be inserted in the outer packaging.		
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