



Secretariat

Distr.  
GENERAL

ST/SG/AC.10/C.3/2003/8  
7 April 2003

ORIGINAL: ENGLISH

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  
(Twenty-third session, 30 June-4 July 2003,  
agenda item 4 (c))

PACKAGINGS

Transport of clinical waste (UN 3291) in bulk

Transmitted by the expert from the United Kingdom

**Background**

1. The expert from the United Kingdom refers to the discussions on the transport of clinical waste (UN 3291) in bulk that took place during the twenty-second session of the Sub-Committee of Experts, December 2002. During the debate while some experts expressed their support for the proposals put forward by the expert from the United Kingdom, others had reservations. Because the vote was tied, the United Kingdom's proposal was not adopted. Nevertheless the expert from the United Kingdom has decided to submit a revised proposal for the twenty third session taking account of the concerns expressed by some experts in the hope that text can be incorporated into the 14th edition of the Model Regulations.
2. The expert from the United Kingdom draws the attention of the Sub-Committee to the long established practice permitted in United Kingdom domestic transport of transporting clinical waste in plastics bags by road in freight containers or road vehicles. This was deemed to be transport in packages. The safety record of such transport was good and industry practice for the safe handling of this material in transport addressed suitable additional conditions of transport. We believe that a number of other countries permitted similar conditions in their own domestic transport arrangements. However, to align with current UN provisions reflected in European regional land transport agreements, and applied to domestic transport regulations in EU Member States, clinical waste in packages can now only be permitted in rigid, leak-proof packagings, including IBCs and Large Packagings (Packing Instructions P621, IBC620 and LP621).

3. The United Kingdom industry has invested heavily in developing, particularly, large packagings for the transport of clinical waste. However, with the adoption during this biennium of provisions addressing the transport of solid substances in bulk in containers in the Model Regulations, and recognising that bulk transport of clinical waste is permitted in European land transport agreements under conditions approved by the competent authority, the expert of the United Kingdom believes it is appropriate for the Model Regulations to address this issue too.
4. During debate at the 21st session of the Sub-Committee it was said that such provisions were not necessary because no international transport of clinical waste took place. However, it should be noted that the Basel Convention on the Trans-Boundary Movement of Hazardous Waste does address the transport of infectious substances, including clinical waste. Because clinical waste needs special disposal plants it is understood that there is cross border movement of this waste, for example from the Republic of Ireland to the United Kingdom. The Model Regulations themselves state quite clearly in paragraph 2 of the section concerning the nature, purpose and significance of the Recommendations (page 1 of the Model Regulations) that they are presented in a form suitable for the development of national, as well as international, regulations. Furthermore the expert from the United Kingdom believes as with the model regulations for the transport of infectious substances, animals in bulk (UN 2900) agreed at the December 2002 biennium, that a set of ready made regulations will assist developing countries.
5. Some confusion arose during the debate at the 21st session because part of the United Kingdom proposal required that clinical waste be contained within leak-proof plastics bags. It should be emphasised that this requirement stems from the United Kingdom's belief that clinical waste, which otherwise may have the potential to generate a quantity of free liquid in transport, should not be transported loose in bulk. This reflects the need to protect the health and safety of transport workers, handlers of clinical waste and the wider community.
6. In order to minimise any free liquid in the bulk container, it is the view of the expert of the United Kingdom that it is necessary to introduce some form of secondary containment requirement. For reasons of ease of availability and cost efficiency for health services as the primary generators of clinical waste, the United Kingdom believes that its previously widely used, and demonstrably safe, method of containment within plastics bags adequately fulfills this function.
7. The United Kingdom proposes that, rather than attempt to introduce into the Model Regulations some newly defined generic concept of secondary containment, a requirement that clinical waste must be contained as a minimum within a UN type tested plastics bag be introduced. However, this is one of several conditions of bulk transport and is not a means of transporting clinical waste in packages.

### **Proposal**

8. The expert from the United Kingdom thus proposes the following:

Amend the title of Section 4.3.2 to include Division 6.2

Add a new paragraph 4.3.2.5 for UN 3291 as follows:

#### 4.3.2.5 Bulk Goods of Division 6.2 (UN 3291)

- (a) Only closed bulk containers (BK2) shall be permitted that in addition have a rigid roof, only side walls, end walls and floor.

- (b) Closed bulk containers, and their openings, shall be leak-proof by design or by the fitting of a suitable liner.
- (c) Goods of UN 3291 shall be contained within the closed bulk container in UN type tested and approved sealed leak-proof plastics bags tested for solids of Packing Group II and marked in accordance with 6.1.3.1. Such plastics bags shall be capable of passing the tests for tear and impact resistance according to ISO standard 7765-1988 1 and ISO 6382-2 2. The maximum capacity for each plastic bag shall not exceed 30kg.
- (d) Single articles exceeding 30 kg such as soiled mattresses may be transported without the need for a plastics bag when authorised by the competent authority
- (e) Rigid packagings specified in Packing Instructions P621, IBC 620 or LP621 may also be used
- (f) Goods of UN 3291 which contain liquids shall only be transported in plastic bags containing sufficient absorbent material to absorb the entire amount of liquid without it entering the bulk container.
- (g) Goods of UN 3291 containing sharp objects shall only be transported in UN type tested and approved rigid packagings meeting the provisions of Packing Instructions P621, IBC620 or LP621. Transport in bulk is not permitted.
- (h) Goods of UN 3291 carried in rigid packagings and plastics bags together in the same closed bulk container shall be adequately segregated from each other such as by suitable rigid barriers or dividers, mesh nets or otherwise securing the packagings, such that they prevent damage to the packagings during normal conditions of transport.
- (i) Goods of UN 3291 in plastics bags shall not be compressed in the closed bulk container in such a way that bags may be rendered no longer leak-proof.
- (j) If any goods of UN 3291 have leaked or been spilled in the closed bulk container, it shall not be re-used until after it has been thoroughly cleaned and, if necessary, disinfected or decontaminated with an appropriate agent. Any other goods and articles carried in the same closed bulk container shall be inspected for possible contamination. (*NOTE: this provision may be more appropriately placed as a new 7.1.6.2.3*)

#### Consequential amendments

Renumber the subsequent paragraphs in 4.3.2 accordingly. Amend the Dangerous Goods List accordingly.

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- 1 ISO 7765: 1988 Plastic Film and Sheeting- Determination of Impact Resistance by the Free Falling Dart Method-Part 1: Staircase Method.
  - 2 ISO 6383-2 Plastics-Film and sheeting-Determination of Tear Resistance-Part 2 Elmendorf Method
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