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

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Item 3 of the provisional agenda

PERFORMANCE OF PACKAGINGS, INCLUDING IBCs

Comments on INF. 33 "Re-bottling/Cross Bottling of Composite IBCs

Transmitted by the International Confederation of Container Reconditioners (ICCR)

Background

1. In INF. 33, the Experts from Australia, Canada, and the United Kingdom provided a series of observations on the practice of using cross bottled composite intermediate bulk containers (IBCs) for the transport of dangerous goods. Composite IBCs are comprised of a rigid plastics inner receptacle in a metal cage affixed to a pallet. Paragraph 1.2.1 of the model regulations says that if the inner receptacle of an IBC conforms to the original manufacturer's specification, that unit is deemed to have been repaired.

2. INF. 33 notes that many composite IBCs are being cross bottled, but says in some cases the IBC reprocessor has not confirmed that the replacement inner receptacle conforms to the original manufacturer's specification. In these cases, the authors believe the cross bottled IBC is "remanufactured." INF. 33 also states that purchasers of a cross bottled IBC may be unaware of this situation and, further, some cross bottled units have failed design type tests.

3. INF. 33 asks the Sub-Committee discuss the implications of cross bottling and invites affected industry organizations to work with them to develop guidance to the Sub-Committee on this issue.

4. ICCR represents hundreds of companies that collect, clean, and reprocess intermediate bulk containers. ICCR estimates that more than 3 million refurbished

composite IBCs are sold annually throughout the world. Many of these units have inner receptacles and cages produced by different manufacturers.

5. Manufacturers produce and actively market both "generic" and original replacement bottles for reprocessed IBCs. Many manufacturers and IBC reprocessors have successfully tested cross bottled IBC combinations.

6. The transportation safety record of refurbished IBCs is exceptional. Although INF. 33 suggests a potential safety problem, no evidence of this assertion is offered other than laboratory tests on a small sampling of containers.

7. Over the years, ICCR members have worked closely with IBC manufacturers, chemical producers, other interested industry groups, and the UN Experts to establish and refine Model Regulations governing the manufacture, testing, use, and reuse of IBCs. In 2000 comprehensive amendments to the Model Regulations covering IBC routine maintenance, repair, and remanufacturing were adopted. See the attached proposals.

8. The Experts anticipated cross bottling, and defined it as repair, so long as the inner receptacle conformed to the original manufacturer's specifications. The term "specification" was used as counterpoint to the term "design type" and specifically did not require purchase of the bottle from the original IBC manufacturer.

9. ICCR welcomes the invitation to review the issues raised in INF. 33 and offers to host an inter-sessional working group for this purpose.

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

Packagings

Remanufacturing, repair and routine maintenance of intermediate bulk containers (IBCs)

Transmitted by the the European Chemical Industry Council (CEFIC), the International Confederation of Container Reconditioners (ICCR), the International Council of Intermediate Bulk Container Associations (ICIBCA) and the International Confederation of Plastics Packaging Manufacturers (ICPP)

Background

In accordance with paragraph 95 of the report of the 17th Session of the Sub-Committee held in December 1999 (ST/SG/AC.10/C.3/34), representatives of (CEFIC), (ICCR), (ICIBCA) and (ICPP) met in Bad Homburg, Germany, on 13-14 March 2000. The meeting was hosted by ICPP. The representatives agreed that definitions should be proposed for inclusion in the Model Regulations for certain "remanufactured IBCs," "repaired IBCs," and "routine maintenance of IBCs." It was further agreed that the persons maintaining or repairing IBCs should be identifiable by markings on the IBCs. The provisions for retention of reports of periodic tests and inspections also should identify the person performing the tasks. A number of consequential amendments were developed to take account of these proposals.

Proposals

The following proposals are submitted:

1. Add the following definitions to 1.2.1 in alphabetical sequence:

"*Remanufactured intermediate bulk containers (IBCs)* are metal, rigid plastics and composite IBCs that:

(a) are produced as a UN type from a non-UN type; or

(b) are converted from one UN design type to another UN design type.

Remanufactured IBCs are subject to the same requirements of these Regulations that apply to new IBCs of the same type. (See also design type definition in 6.5.4.1.1.)"

"*Repaired intermediate bulk containers (IBCs)* are metal, rigid plastics or composite IBCs that, as a result of impact or for any other cause (e.g. corrosion, embrittlement or other evidence of reduced strength as compared to the tested design type) are restored so as to conform to the tested design type and to be able to withstand the design type tests. For purposes of these Regulations, the replacement of the rigid inner receptacle of a composite IBC with a receptacle conforming to the original manufacturer's specification, is considered repair. However, *routine maintenance of IBCs* (see definition below) is not considered repair. The bodies of rigid plastics IBCs and the inner receptacles of composite IBCs shall not be repaired."

"*Routine maintenance of IBCs* is the routine performance on metal, rigid plastics or composite IBCs of operations such as:

a) cleaning;

b) removal and reinstallation or replacement of body closures (including associated gaskets), or of service equipment, conforming to the original manufacturer's specifications, provided that the leaktightness of the service equipment installation is verified; or

c) restoration of structural equipment not directly performing a dangerous goods containment or discharge pressure retention function so as to conform to the tested design type (e.g. the straightening of legs or lifting attachments)."

2. Add a new 4.1.2.5, to read:

"Except for routine maintenance of metal, rigid plastics and composite IBCs performed by the owner of the IBC, whose name or symbol is durably marked on the IBC, the person performing routine maintenance shall durably mark the IBC near the manufacturer's UN design type marking to show:

(a) the State in which the routine maintenance was carried out; and

(b) the name or symbol of the person performing the routine maintenance."

3. Revise the last sentence of 6.5.1.6.4 to read:

"A report of each inspection shall be kept by the owner of the IBC at least until the next inspection. The report shall include the results of the inspection and shall identify the person performing the inspection. (See also the marking requirements in 6.5.2.2.1.)"

4. Revise 6.5.1.6.5 to read:

"When the structure of an IBC is impaired as a result of impact (e.g. accident) or any other cause, it shall be repaired or otherwise maintained (see definition of *routine maintenance of IBCs* in 1.2.1), so as to conform to the tested design type."

5. Add a new 6.5.1.6.6 (and renumber existing 6.5.1.6.6 and 6.5.1.6.7), to read:
"In addition to any other testing and inspection requirement in these Regulations, an IBC shall be subjected to the full testing and inspection requirements set out in 6.5.4.14.3 and 6.5.1.6.4(a), and the required reports shall be prepared, whenever it is repaired.

(a) Except for repairs by the original IBC manufacturer whose design type marks appear on the IBC, or the owner of the IBC whose name or symbol is durably marked on the IBC, the person performing the repair shall durably mark the IBC near the manufacturer's UN design type marking to show:

(i) State in which the repair was carried out;
(ii) the name or symbol of the person performing the repair; and,
(iii) the the date (month and year) of the repair (if not already marked in accordance with 6.5.2.2.1).

(b) Required reports may be prepared by the person repairing the IBC.

(c) Such tests and inspections may be considered to satisfy the requirements for the two and a half and five year periodic test and inspection."

6. Revise 6.5.4.14.4 to read:

"The results of tests and the identity of the person performing the tests shall be recorded in test reports to be kept by the owner of the IBC at least until the date of the next test."

Consequential amendments:

7. Revise the last sentence of 4.1.1.1 to read:

"These provisions apply, as appropriate, to new, reused, reconditioned or remanufactured packagings, and to new, reused, repaired or remanufactured IBCs, and to new or reused large packagings."

8. Revise 4.1.1.12(c) to read:

"(c) after the repair or remanufacture of any IBC, before it is re-used for transport."

9. Revise the heading of 6.5.4.14 to read "Testing of metal, rigid plastics and composite IBCs" and revise 6.5.4.14.3 to read:

"Each metal, rigid plastics and composite IBC for liquids, or for solids which are filled or discharged under pressure, shall be subjected to the leakproofness test, as an initial test (i.e. before the IBC is first used for transport), after repair, and at intervals of not more than two and a half years."
