



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

Sixtieth session

Geneva, 27 June-6 July 2022

Item 6 (b) of the provisional agenda

Miscellaneous proposals for amendments to the Model Regulations

on the Transport of Dangerous Goods: packagings, including the use of recycled plastics material

Use of recycled plastics material

Transmitted by the expert from Belgium*

Introduction

1. During the fifty-eighth session of the Sub-Committee, Belgium presented informal document INF.6 (58th session). In that document emphasis was put on the role the use of recycled plastics can play in the transition of the current economic model to a more sustainable and circular one. The relevance of such work was also acknowledged during the fifty-ninth session of the Sub-Committee while discussing informal document INF.31/Rev.1 (59th session) and mentioning the use of recycled plastics for packagings of dangerous goods as a contribution to Sustainable Development Goal 8 “Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”.

2. In informal document INF.6 (58th session) it was explained how the current regulatory provisions on the use of recycled plastics material create a situation that is conflicting depending on the source of the plastics material and the interpretation of these provisions by the competent authority or inspection body.

3. Prior to the 58th session, comments were received from the experts from the United Kingdom and the International Confederation of Container Reconditioners (ICCR), International Confederation of Intermediate Bulk Container Associations (ICIBCA) and International Confederation of Plastics Packaging Manufacturers (ICPP) in informal documents INF.26 (58th session) and INF.42 (58th session), respectively. After the discussion during the 58th session, the following was noted in the report of the session (report [ST/SG/AC.10/C.3/116](#), paras. 66 and 67):

“66. The Sub-Committee noted the feedback by some experts in informal documents INF.26 and INF.42 on the regulatory aspects on the use of recycled plastics material in informal document INF.6. The expert from Germany mentioned that some manufacturers of recycled plastics material indicate that their products are not appropriate for “highly regulated applications”. The expert from Belgium added that

* A/75/6 (Sect.20), para. 20.51

there is not yet enough data on the experience with recycled plastics material and that the trust in quality assurance management of manufacturers is not sufficient to ensure safe transport of dangerous goods. He volunteered to organise, if deemed appropriate, an intersessional meeting to further discuss this subject and to report back to the Sub-Committee.

67. The Chair invited all delegates to share their comments on the questions raised by Belgium in paragraph 14 of informal document INF.6 as well as their interest to participate in the intersessional meeting. The Sub-Committee agreed to resume discussion on the subject at its next session.”

Discussion

4. After the session, the experts from Belgium received additional comments from several delegations. In general, these comments expressed the preference for a performance-based approach but that additional requirements might be required for certain types of packagings made from recycled plastics material (e.g. under the form of additional parameters to be measured for the source material or of requirements in a quality assurance program). After analysis of the comments received, it was nevertheless decided that it was premature to organize an intersessional working group on this subject.

5. The standard ISO 16103:2005 “Transport packaging for dangerous goods — Recycled plastics material” is mentioned as guidance for the use of recycled plastics material in the note to the definition of *Recycled plastics material* in 1.2.1. As underscored by the adopted change to this note during the 57th session (based on document [ST/SG/AC.10/C.3/2020/44/Rev.1](#)), this standard is based on experiences with using recycled plastics material for the production of drums and jerrycans. As technology is progressing and more experience is gained, experts have started the revision process of this standard. In informal document [UN/SCETDG/58/INF.6](#) it was mentioned that the work on this revision would benefit from a clearer view of the Sub-Committee on which direction to follow for the contents of the future standard. The revision of ISO 16103:2005 has been ongoing and the discussions on the general principles to be followed for the revision of the standard, based on the comments from the previous Sub-Committee sessions, are to be concluded very soon.

6. In general, the principles for the revision of ISO 16103:2005 will not restrict the sources of plastics material to only industrial provided UN packagings, but provisions for other sources of recycled plastics material waste will also be included. These provisions will take into account whether the material was obtained from a known closed loop system (e.g. used UN packagings) or an open system (e.g. household waste or other plastic waste sources). Depending on the origin of the source of the plastics material different quality control criteria, verification criteria and schemes (to be developed) will have to be met before the material is deemed appropriate to be used for producing packagings, Intermediate Bulk Containers (IBCs) and Large Packagings for the transport of dangerous goods.

7. At the end of the manufacturing process, the packagings/IBC’s/Large Packagings produced from all possible sources (virgin and/or recycled) shall be able to pass the tests described in the Model Regulations as a prototype and later in the process also as production samples. A visual representation of this model can be found in the annex to this document.

8. Benefits of this approach would be that:

- (a) the quality will be more guaranteed for all sources of plastics material, it might even be possible to take up the required specifications for the source material in the prototype test report;
- (b) the batch control, which is currently very limited for the use of recycled plastics material according to 1.2.1, will be adaptable based on the processing and quality of the source material;
- (c) it will be clearer whether plastics material can be considered as suitable.

9. The final decision on the philosophy and principles to be applied during the revision of ISO 16103:2005 is not yet made and will be made during the month of May. Belgium is committed to report on the final decision made for the revision of the ISO standard in an informal document that shall be published timely in advance of the 60th session.

10. Belgium is of the opinion that a lunch time working group meeting during the 60th session on the topic of recycled plastics material for producing packagings, IBC's and Large Packagings intended for the transport of dangerous goods would greatly benefit from the ongoing work.

Proposal

11. Belgium proposes to organize a lunch time working group on the topic of recycled plastics material where thoughts can be given on how to accustom the agreed upon principles for the revision of ISO 16103 in the Model Regulations. In addition, Belgium invites other delegations to share any relevant information on the use of recycled plastics material in the context of transport of dangerous goods and their views on the proposed philosophy.

Annex

