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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

Twenty-sixth session, 29 November-3 December 2004  
Item 3 (c) of the provisional agenda

**OUTSTANDING ISSUES OR PROPOSALS OF AMENDMENTS TO THE RECOMMENDATIONS  
ON THE TRANSPORT OF DANGEROUS GOODS**

Miscellaneous proposals

Environmentally hazardous substances

Note by the secretariat

1. The Sub-Committee adopted, at its twenty-fifth session, new provisions concerning identification, marking and placarding for environmentally hazardous substances.
2. Long discussions took place concerning the possibility to identify aquatic pollutants in the Model Regulations. Certain delegations wished to establish a list of aquatic pollutants. Others felt that it was not possible to include and update an exhaustive list in the Model Regulations because the list would be too lengthy and this would lead to unnecessary bureaucratic procedures. Furthermore, the introduction of criteria in Chapter 2.9 was intended to allow self-classification by the industry, and various sources of information were already available (GESAMP list; the Nordic Council of Ministers/European Chemicals Bureau N-CLASS data base).
3. The secretariat notes that the information provided by these various sources is not always consistent, and the data, such as log  $K_{ow}$  and BCF, which would allow the industry, in particular developing countries, to classify well-known products without testing on the basis of the criteria of 2.9.3 are not always publicly available.
4. The experience of the IMDG Code and of ADR/RID shows that referring only to criteria in the Regulations causes practical and legal problems of implementation, interpretation and enforcement in international transport. The main reasons are that:

(a) the pollution potential of the vast majority of chemicals and commercial commodities exchanged in international trade is not well known, and therefore it is not possible for the industry to ascertain that a product is or is not pollutant as long as it has not been tested;

(b) some scientific data are becoming available progressively, but these data are often available regionally or nationally only, and are not always accessible to the public at worldwide level;

(c) the enforcement authorities face the same problems of lack of available data, and checking compliance with the classification rules is difficult due to the complex procedure of classification and the cost of testing.

5. For these reasons, the International Maritime Organization had decided to identify, in the IMDG Code, those substances which are known to meet the criteria for marine pollutants. The Contracting Parties to RID and ADR have also decided that, despite the criteria, substances which are not identified in Council Directive 67/548/EEC of 27 June 1967, as amended, as substances to which letter N "Environmentally Hazardous" (R50; R50/53; R51/53) has been allocated, need not be considered as aquatic pollutants under transport regulations.

6. The secretariat believes that, in order to facilitate implementation and harmonization, a pragmatic approach based on the existing principles of the Model Regulations should be adopted, i.e. substances already listed by name in the dangerous goods list and which are known to meet the criteria should be identified as such. It should be made clear that other substances listed by name but not identified as aquatic pollutants, as well as substances of Classes 1 to 8 not listed by name but assigned to a collective entry, may meet the criteria and in such a case they are also subject to the aquatic pollutant provisions.

7. At its twenty-fifth session, the Sub-Committee agreed that the question should be further discussed in the next biennium (ST/SG/AC.10/C.3/50, para. 122). Since the target date for implementation of the GHS is 2008, and decisions taken by the Sub-Committee during the next biennium would be implemented through international legislation only in 2009, the secretariat thinks that an interim solution, based on the approach in the IMDG Code, could already been envisaged for the 14th revised edition of the Model Regulations.

### **Proposal**

8. Therefore, the Sub-Committee may wish to consider the following proposed amendments:

(a) Add the following special provision to Chapter 3.3. of the Model Regulations:

"XXX This substance has been identified as meeting the criteria of 2.9.3 for classification as a substance pollutant to the aquatic environment, and the provisions of 5.2.1.7, 5.3.2.3 and 5.4.1.4.3 (e) apply.

(b) At the end of 2.0.1.2 (see also ST/SG/AC.10/C.3/2004/80), add the following NOTE:

***NOTE:** Special provision XXX of Chapter 3.3. has been assigned, in column (6) of the Dangerous Goods List of Chapter 3.2, to substances of Classes 1 to 8 which are known to meet the criteria of 2.9.3 for classification as substances pollutant to the aquatic environment. All substances of the Dangerous Goods List have not yet been assessed by the Sub-Committee of Experts on the Transport of Dangerous Goods in this respect. Nevertheless substances of the Dangerous Goods List to which special provision XXX has not been assigned in the Dangerous Goods List but which meet the criteria of 2.9.3 are also subject to the provisions of these Regulations for aquatic pollutants (see 5.2.1.7, 5.3.2.3 and 5.4.1.4.3 (e)).*

### Identification of aquatic pollutants

9. As a first step in the biennium, the secretariat suggests that, to promote multimodal harmonization, substances which are identified as marine pollutants in the IMDG Code should be identified as aquatic pollutants in the Model Regulations when they meet the criteria of 2.9.3.

10. During the twenty-fifth session, it was underlined that the criteria used for identification of marine pollutants in the IMDG Code were not fully in line with the GHS criteria. It could also be noted that the identification of marine pollutants in the IMDG Code has been done on the basis of information provided in the "Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP) List of the Hazard Profiles of products transported both in bulk and in packaged form by ships". This so called "GESAMP/EHS Composite List of Hazard Profiles", last published by the International Maritime Organization in 2003 as document BLG/Circ.13 (see informal document INF.3) had originally been developed for the purposes of implementation of Annex II of the MARPOL 73/78 Convention, i.e. carriage of liquid chemicals in bulk, and therefore it covers mainly products carried by sea in chemical tankers. For this reason not all substances listed in the IMDG Code have been assessed.

11. Substances identified as marine pollutants in the IMDG Code are those which have been assigned

- the sign "+" or "Z" in column A of the GESAMP List;
- the figure 4 or 5 in column B of the GESAMP List.

Additional information on the GESAMP Hazard Profiles may be found in the GESAMP Reports and Studies No. 35 (1989) and No. 64 (2002).

12. Substances which have been assigned figure 4 or 5 in column B of the GESAMP List have an  $LC_{50}$  less than  $1\text{mg/l}$ , and therefore meet the criteria of 2.9.3.

13. Substances which have been assigned the sign "+" in column A are those which are bioaccumulated to a significant extent and known to produce a hazard to aquatic life or to human health.

14. Substances which have been assigned letter "Z" in column A of the GESAMP List are those which are bioaccumulated with attendant risk to aquatic organisms or to human health with a short retention of the order of one week or less.

15. For substances which have been assigned "+" or "Z" in column A of the GESAMP List, the problem is that the criteria used for the GESAMP List differ from those of 2.9.3 because the cut-off limits for  $\log K_{ow}$  and BCL were different when the list was established (" $\log K_{ow} \geq 3$  (unless the experimentally determined  $BCF \leq 100$ )" instead of (" $\log K_{ow} \geq 4$  (unless the experimentally determined  $BCF \leq 500$ )"). For this reason, it cannot be concluded that a substance which has been assigned sign "+" or letter "Z" in column B of the GESAMP List meets the criteria of 2.9.3.

16. Since the "N-CLASS database" was presented to the Sub-Committee at its last session, the secretariat has consulted the data given in this database for all substances identified in the IMDG Code as marine pollutants to check whether they met the criteria of 2.9.3.

17. The results of this study will be consolidated in an informal document which will indicate, for each UN number described as marine pollutant in the IMDG Code, the GESAMP hazard profile (columns A and B) and the information provided by the N-CLASS database.

18. On the basis of this study, the Sub-Committee may wish to decide whether or not the proposed special provision XXX could be assigned, in the next edition of the Model Regulations, to substances which are identified as marine pollutants in the IMDG Code and which meet the criteria of 2.9.3.

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