



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 2 (h) of the provisional agenda

Explosives and related matters: Miscellaneous

Including an acceptable level of risk in classification criteria

Transmitted by the Sporting Arms and Ammunition Manufacturers' Institute (SAAMI)*

I. Introduction

1. Pursuant to the *Guiding Principles for the Development of the Model Regulations on the Transport of Dangerous Goods*¹:

“The transport of dangerous goods is regulated to prevent or mitigate, as far as possible, incidents that could endanger public safety or harm the environment. At the same time, regulations should be framed so that they do not hamper the movement of dangerous goods, other than those too dangerous to be accepted for transport.”

2. It is also specified that “[t]he aim of the regulations, therefore, is to make transport feasible and safe by reducing risks to a minimum.”

3. Risk is not defined in the *Model Regulations* nor the *Guiding Principles*. The term “risk” refers both to the probability of a transport incident and the magnitude of the hazard. The *Model Regulations* accommodate the transport of low, medium and high hazard dangerous goods, all combined with a low probability of incident. An injury resulting from such an incident, although unlikely, may not be trivial for any hazard level.

4. While decisions based on probability are not left to the discretion of stakeholders, risk management is a normal and necessary part of the Sub-Committee’s work. For example, the Sub-Committee incorporates risk into choices about the severity of controls for different classifications. Risk must be balanced by supporting the public interest for the safe and unhampered transport of dangerous goods.

* A/77/6 (Sect. 20), table 20.6

¹ Seventh version (2023), Part 0, paragraph 5.



II. Classification of hazard levels

5. All classes of dangerous goods cover a range of hazard levels and may have certain de minimis criteria for exclusion from the *Model Regulations*. Classes 3, 8, and certain divisions of classes 4, 5, 6 and 8 are divided by classification criteria into packing groups (PG) I, II and III. These represent high, medium and low levels of danger².

6. In addition, while explosives do not have packing groups, they are also categorized into high, medium, and low hazard groups, which have been explicitly assigned in the “Globally Harmonized System of Classification and Labelling of Chemicals” (*GHS*) as sub-categories 2A, 2B and 2C. These groupings are also implied in the *Model Regulations* and modal regulations when looking at requirements.

7. A cursory look at PG III and the chemicals it contains, as well as the explosive equivalent 1.4S, reveals that, in the unlikely event of an incident, these chemicals are capable of causing minor injury to an unprotected human body. In other words, all dangerous goods are dangerous.

8. The scope of injuries which may result from a low hazard dangerous good is not defined. Conversations about low hazard may include the terms “first aid injury” or “walk-away factor.” The *GHS* defines low hazard for explosives as:

“Sub-category 2C represents a low explosion hazard. An explosive in this sub-category can cause minor damage to objects and moderate injuries to persons. Injuries would not normally result in permanent impairment.”

III. Acknowledgement of hazard

9. Based on experience, SAAMI believes it would be helpful to include a statement in the *Guiding Principles* on the possibility of injury relating to a dangerous goods incident. It should be accepted that, while the probability may be very low, if an incident occurs, it would be reasonable to expect some form of damage or injury.

IV. Proposal

10. SAAMI asks the Sub-Committee to consider such guidance to preclude the development of criteria which eliminate rather than manage risk, and inordinately hamper commerce. It is the goal of the regulations to mitigate risk to an acceptable level to promote safe commerce. Based on the discussion, SAAMI may return with another proposal.

² See section 2.0.1.3 of the *Model Regulations*.