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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

Sixtieth session

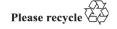
Geneva, 27 June - 6 July 2022 Item 3 of the provisional agenda **Listing, classification and packing**

Specific activity and activity concentration

Transmitted by the expert from Spain*

Introduction

- 1. In 2.7.1.3 of the Model Regulations, "specific activity" is defined as "Specific activity of a radionuclide means the activity per unit mass of that nuclide. The specific activity of a material shall mean the activity per unit mass of the material in which the radionuclides are essentially uniformly distributed."
- 2. Nevertheless, the wording "activity concentration" is used throughout the Model Regulations in the same sense, as is in fact already done in the International Atomic Energy Agency (IAEA) regulations, in particular in the Regulations for the Safe Transport of Radioactive Material, Specific safety requirement, SSR-6 (Revision 1), Edition 2018.
- 3. In the Model Regulations, the wording "activity concentration" or "specific activity" is used in the same cases as in SSR6.
- 4. Both expressions are used with the same meaning and are in fact synonyms.
- 5. The concept of activity concentration is not further explained or introduced into SSR6. But, while SSR6 is a specialized text for class 7, the Model Regulations cover a much wider field, and not all experts in one field have an in-depth knowledge of other fields of expertise.
- 6. It is considered useful to maintain the use of "activity concentration" or "specific activity" as in SSR6, but for further clarity, a note could be added to the definition of "specific activity" mentioning that "activity concentration" can be used as equivalent.



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

Proposal

7. Spain proposes to amend in paragraph 2.7.1.3 the definition of specific activity, by adding a NOTE (new text in **bold**):

"Specific activity of a radionuclide means the activity per unit mass of that nuclide. The specific activity of a material shall mean the activity per unit mass of the material in which the radionuclides are essentially uniformly distributed.

NOTE: "Activity concentration" may be used as a synonym for "specific activity"."

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