

## **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 7 of the provisional agenda

**Cooperation with the International Atomic Energy Agency (IAEA)**

### **Revision of the IAEA Safety Regulations (TS-R-1)**

**Transmitted by the International Atomic Energy Agency (IAEA)**

#### **I. Progress of revision of IAEA Transport Regulations**

1. The new revision cycle of Regulations for the Safe Transport of Radioactive Material (TS-R-1) started in 2009. As scheduled, the final draft will be approved by IAEA Safety Standard Commission in Nov. 2011 and by Board of Governor in March 2012.

The main changes in this revision cycle are:

- (a) Transport of fissile material: three type of fissile material were defined – fissile material that needs full control, CSI controlled fissile material that needs only transport control and fissile excepted material that needs least control ;
- (b) The principle of exemption of radioactive material from regulatory control: some flexibility has been introduced to allow regulatory body to approve the alternative limits for exemptions or exception.
- (c) Natural material and ores containing naturally occurring radionuclides are exempt from the regulations (TS-R-1), provided their activity concentration does not exceeding 10 times limit for exempt concentration, and no matter what the purposes of the material are used for.
- (d) Transport of Uranium Hexafluoride less than 100 g that may be allowed to be transported by excepted package.

2. For this change, a new UN number was requested by IAEA at the 38<sup>th</sup> meeting of the Sub-Committee of Experts on the Transport of Dangerous Goods. We hope that a new UN number will be communicated to IAEA as soon as the new edition of the TS-R-1 is approved by IAEA Safety Standard Commission in Nov. 2011 so that publication process could start in due course.

#### **II Harmonization between UN Orange Book and IAEA regulations**

3. The IAEA is about to undertake a process of reviewing the application of UN Orange Book requirements to radioactive material. The process has three goals:

- (a) To ensure no requirements apply to radioactive material that could result in unsafe carriage;

- (b) To determine whether there are provisions in the UN Orange Book that should apply to Class 7 but currently do not (either in the Orange Book or in TS-R-1.)
  - (c) To produce simpler, harmonised text, which will form the basis for on-going work.
4. Some principles need to be discussed and agreed by all parts:
- (a) Clear boundaries of what can and should be in the requirements;
  - (b) Classification determining the appropriate predominant hazard;
  - (c) Minimization of the Class 7 specific text in the Recommendations section;
  - (d) Identification of a lead body for common definitions;
  - (e) Avoiding conditional application of text – either apply it or don't apply it.
5. In order to minimise the effort and travel the IAEA has established an on-line collaborative area that will allow discussion between different groups conducting topic by topic review using online tools.
6. This will involve no additional meetings and will provide national representatives the option for pre-consultation before posting final comments.
7. Time table proposed:
- Review of Orange Book for IAEA input is during June 2011 – March 2013;
  - In April 2014, UNECE will be informed the extent of changes for next biennium;
  - At the end of March 2015, draft will be sent to 1<sup>st</sup> biennium meeting of UNECE for information;
  - In March 2016, final text will be sent to UNECE for 3<sup>rd</sup> meeting of biennium in UN format.

### **III. The technical basis for facilitating the review of the Regulations for the Safe Transport of Radioactive Material (TS-R-1)**

8. The Regulations for the safe transport of radioactive materials have been revised more than 10 times since its first publication in 1961. Member States and International Organizations have put lots of efforts, time and resources. These efforts contribute to excellent safety record of transport of radioactive material over 50 years.
9. Generally each requirement was developed based on technical bases obtained from research, feedback, experience. They are the foundation of the regulations. Currently these technical bases are stored in decentralized ways among Member States and international organizations.
10. IAEA is undertaking a project to collect, sort, assess and manage these technical bases. The purpose of this project is:
- To identify essential safety requirements and gaps;
  - To pool and preserve the knowledge;
  - To have easy and fully access to technical bases;

- To help users understand the Regulations better;
- To facilitate the revision/review and the improvement of the Regulations.

11. Two meetings were held to date. The meetings found that some of technical bases are derived from other instruments, like UN Orange book. So supports from UNECE are need for this project.

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