



---

**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****Thirty-eighth session**

Geneva, 29 November–7 December 2010

Item 8 of the provisional agenda

**Cooperation with the International Atomic Energy Agency (IAEA)****Provisions for uranium hexafluoride with less than 0.1 kg  
per package****Transmitted by International Atomic Energy Agency (IAEA)<sup>1</sup>****Introduction**

1. According to paragraph 98 of the report of the Sub-Committee of Experts on the Transport of Dangerous Goods on its thirty-seventh session held from 21-30 June 2010 (ST/SG/AC.10/C.3/74), it was reported by the representative of the IAEA, that the work regarding the transport of UF<sub>6</sub> in quantities less than 100 grams and in the conditions applicable to excepted packages was continuing. Nevertheless, a proposal for a new UN number was approved by TRANSSC 20 (June 2010) for the 120 day comment period of the TS-R-1. It was recommended to establish a fifth UN number for “Radioactive material, excepted package” for UF<sub>6</sub> with less than 0.1 kg per package.

---

<sup>1</sup> In accordance with the programme of work of the Sub-Committee for 2009-2010 approved by the Committee at its fourth session (refer to ST/SG/AC.10/C.3/68, para. 118 (f) and ST/SG/AC.10/36, para. 14).

## Proposals

2. In table 2.7.2.1.1 add the following entry:  
“UN 3XXX RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - URANIUM HEXAFLUORIDE, LESS THAN 0.1 KG PER PACKAGE”
3. Amend paragraph 2.7.2.4.1.1 to read as follows:  
“2.7.2.4.1.1 Packages may be classified as excepted packages if:
  - (a) They are empty packages having contained radioactive material;
  - (b) They contain instruments or articles in limited quantities as specified in Table 2.7.2.4.1.2;
  - (c) They contain articles manufactured of natural uranium, depleted uranium or natural thorium;
  - (d) They contain radioactive material in limited quantities as specified in Table 2.7.2.4.1.2; or
  - (e) They are designed to contain less than 0.1 kg of uranium hexafluoride non-fissile or fissile excepted.”
4. Add a new paragraph 2.7.2.4.1.4bis:  
“2.7.2.4.1.4bis Uranium hexafluoride not exceeding the limits specified in column 4 of Table 2.7.2.4.1.2 may be classified under UN 3XXX RADIOACTIVE MATERIAL, EXCEPTED PACKAGE – URANIUM HEXAFLUORIDE, LESS THAN 0.1 KG PER PACKAGE, provided that the conditions of 2.7.2.4.1.4 (a)–(b) are met.”
5. Amend paragraph 2.7.2.4.5 to read as follows:  
“2.7.2.4.5 *Classification of Uranium hexafluoride*  
2.7.2.4.5.1 Uranium hexafluoride shall only be classified as:
  - (a) UN No 2977, RADIOACTIVE MATERIAL, URANIUM HEXAFLUORIDE, FISSILE; or
  - (b) UN No 2978, RADIOACTIVE MATERIAL, URANIUM HEXAFLUORIDE, non-fissile or fissile-excepted; or
  - (c) UN No 3XXX RADIOACTIVE MATERIAL, EXCEPTED PACKAGE – URANIUM HEXAFLUORIDE, LESS THAN 0.1 KG PER PACKAGE, in the case of uranium hexafluoride in quantities of less than 0.1 kg packaged and in an excepted package.  
2.7.2.4.5.2 The contents of a package containing uranium hexafluoride shall comply with the following requirements:
  - (a) The mass of uranium hexafluoride shall not be different from that allowed for the package design.
  - (b) The mass of uranium hexafluoride shall not be greater than a value that would lead to an ullage of less than 5% at the maximum temperature of the package as specified for the plant systems where the package may be used.

(c) The uranium hexafluoride shall be in solid form and at the internal pressure shall not be above atmospheric pressure when presented for transport.”

6. In Chapter 3.2, List of Dangerous Goods, add the following entry:

3XXX	RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - URANIUM HEXAFLUORIDE, LESS THAN 0.1 KG PER PACKAGE.	7	8	I		XXY	0	E0	P002
------	--	---	---	---	--	-----	---	----	------

(N.B. In the above table, packing group I is shown as a clear requirement, which is not the case when only the general text of special provision 172 applies.)

7. In Chapter 3.3, add the following new special provision:

“SPXXY - This material shall be transported in accordance with the provisions applicable to that UN number. In addition, all other requirements specified in 1.5.1.5 and 4.9.1.5 shall apply, except 5.2.1.5.2. For labelling, only a label conforming to model No 8 is required.

For marking, the mark “UN 3XXX” shall be displayed on the package, in accordance with 5.2.1.1 and 5.2.1.5.2.

For documentation, in accordance with 5.4.1.4.1 and notwithstanding the provisions of 5.4.1.5.7, the description in the transport document shall be as followed:

“UN 3XXX RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - URANIUM HEXAFLUORIDE, LESS THAN 0.1 KG PER PACKAGE, 7 (8) I”.”.