

Information Circular

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General Distribution

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Communication received from Belgium concerning its policies regarding the management of Plutonium

1. The Secretariat has received a Note Verbale dated 10 September 2008 from the Permanent Mission of Belgium to the IAEA in the enclosures of which the Government, in keeping with Belgium's commitment under the Guidelines for the Management of Plutonium (contained in INFCIRC/549 of 16 March 1998 and hereinafter referred to as the "Guidelines") and in accordance with Annexes B and C of the Guidelines, has made available annual figures for holdings of civil unirradiated plutonium and the estimated amounts of plutonium contained in spent civil reactor fuel as of 31 December 2007. In addition to these figures, a declaration on MOX fuel in Belgium was under cover of the Note Verbale.
2. Following communications between the Secretariat and the Permanent Mission of Belgium to the IAEA after the receipt of the Note Verbale and in the light of the request expressed by Belgium in its Note Verbale of 1 December 1997 concerning its policies regarding the management of plutonium (INFCIRC/549 of 16 March 1998), the enclosures to the Note Verbale of 10 September 2008 are attached for the information of all Member States.

2007

ANNEX B

Guidelines for management of plutonium

Annual figures for holdings of civil unirradiated plutonium

BELGIUM

	As of 31 Dec. 2007 (Previous year's figures in Brackets) Rounded to 100 kg plutonium	
1. Unirradiated separated plutonium in product stores at reprocessing plants.	0 KG	(0kg)
2. Unirradiated separated plutonium in the course of manufacture or fabrication and plutonium contained in unirradiated semi-fabricated or unfinished products at fuel or other fabricating plants or elsewhere.	0 kg	(300 kg)
3. Plutonium contained in unirradiated MOX fuel or other fabricated products at reactor sites or elsewhere.	1.400 kg	(300 kg)
4. Unirradiated separated plutonium held elsewhere.	p.m.	(p.m.)

<p>Note :</p> <p>(i) Plutonium included in lines 1-4 above belonging to foreign bodies.</p>	<p>1.400 kg</p>	<p>(300 kg)</p>
<p>(ii) Plutonium in any of the forms in lines 1-4 above held in locations in other countries and therefore not included above.</p>	<p>0 kg</p>	<p>(0 kg)</p>
<p>(iii) Plutonium in international shipment for which the Government of Belgium still retains Safeguards responsibility is included in the appropriate lines above. The Government with jurisdiction over the owner of the plutonium is responsible for resolving any residual difficulties.</p>	<p>0 kg</p>	<p>(0 kg)</p>
<p>(iv) It is open to Governments to add any further information or explanation which they believe helpful</p>		

2007

ANNEX C

**Estimated Amounts of Plutonium Contained in Spent civil
Reactor Fuel**

National totals

	As of 31 Dec. 2007 (Previous year's figures in Brackets) Rounded to 1000 kg plutonium	
1) Plutonium contained in spent fuel at civil reactor sites	31.000 kg	(28.000 kg)
2) Plutonium contained in spent fuel at reprocessing plants	0 kg	(0 kg)
3) Plutonium contained in spent fuel held elsewhere	0 kg	(0 kg)

Note:

- i) The treatment of material sent for direct disposal will need further consideration when specific plans for direct disposal have taken concrete form.**
- ii) Definitions:**
 - Line 1: covers plutonium contained in fuel discharged from civil reactors.**
 - Line 2: covers estimated amounts of plutonium contained in fuel received at reprocessing plants but not yet reprocessed.**

Declaration about MOX fuel in Belgium

Article 14 of the guidelines for the management of plutonium

According to decisions of the Belgian Government, it has been allowed to reprocess in France 670 tonnes of spent fuel. The plutonium resulting from the first 140 tonnes has found appropriate destinations.

The plutonium from the other 530 tonnes (about 4,8 tonnes) were allowed to be used in the form of MOX fuel in the Belgian nuclear power plants. This MOX fuel was fabricated in the plant of Belgonucleaire at Dessel. The last MOX fuel elements fabricated with the plutonium resulting from the reprocessing of the above-mentioned 530 tonnes were loaded in the nuclear power plant of Doel 3 in 2006. By this, all plutonium resulting from the reprocessing of the Belgian spent fuel had been eliminated avoiding in this way the accumulation of separated plutonium stocks. As no new reprocessing contracts are concluded at the moment, no new separated plutonium is produced and there is no need any more for the fabrication of MOX fuel for the Belgian nuclear power plants.

Apart from the Belgian MOX fuel, the Belgonucleaire plant at Dessel mostly fabricated MOX fuel for foreign nuclear power plants in France, Germany, Switzerland and Japan. Due to shrinking reprocessing, especially in the European Union and thus the decreasing need for MOX fuel and the putting in operation of new MOX plants, the Belgonucleaire plant could no longer obtain the necessary commercial contracts and had therefore to be closed in July 2006. For the fabrication of MOX fuel, the plant had at its disposal an operational stock of separated plutonium. During the fabrication of the last MOX fuel, the plant gradually proceeded to the elimination of most of its operational stock. This explains the considerable decrease in the holdings of civil unirradiated plutonium in Belgium since 2005. The stock remaining at the end of 2006 was further eliminated by use in nuclear power plants. At the end of 2007 Belgonucleaire had almost no unirradiated separated plutonium in its facility.

On the other hand, the facility of FBFC International (AREVA) at Dessel continues to assemble MOX fuel elements from MOX fuel pins fabricated elsewhere. According to the operation schedule the quantity of the MOX fuel pins and the MOX fuel elements present at the FBFC-facility can fluctuate heavily. This declares the big difference in the figures mentioned in annex B at the end of each year for the plutonium contained in unirradiated MOX fuel or other fabricated products at reactors or elsewhere.
