

Information Circular

INFCIRC/549/Add.3/13

Date: 8 December 2014

General Distribution
Original: English, French

Communication Received from Belgium Concerning its Policies regarding the Management of Plutonium

1. The Secretariat has received a note verbale dated 6 November 2014 from the Permanent Mission of Belgium to the IAEA in the enclosures of which the Government of Belgium, in keeping with its commitment under the Guidelines for the Management of Plutonium (contained in INFCIRC/549¹ 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 as of 31 December 2011 (corrected), 31 December 2012 and 31 December 2013, and estimated amounts of plutonium contained in spent civil reactor fuel as of 31 December 2012 and 31 December 2013. A declaration concerning the nuclear policy situation in Belgium was also enclosed with the note verbale.
2. In light of the request expressed by the Government of Belgium in its note verbale of 1 December 1997 concerning its policies regarding the management of plutonium (INFCIRC/549 of 16 March 1998), the note verbale of 6 November 2014 and its enclosures are attached for the information of all Member States.

¹ A modification to this document was issued on 17 August 2009 (INFCIRC/549/Mod.1)

Embassy and Permanent Mission of Belgium

Ref: 14/611
Annexes: 10 pages

The Permanent Mission of Belgium to the IAEA presents its compliments to the Director General of the International Atomic Energy Agency and has the honour to refer to Belgium's annual commitment pursuant to the Guidelines for the Management of Plutonium (INFCIRC/549).

In accordance with this commitment, the Permanent Mission attaches hereto information on plutonium holdings on Belgian territory as of 31 December 2013:

- Annex B of the Guidelines for the Management of Plutonium covering holdings of civil unirradiated plutonium in Belgium for 2011 (modified), 2012 and 2013;
- Annex C of the Guidelines relating to estimated amounts of plutonium contained in spent civil reactor fuel for 2012 and 2013;
- A declaration concerning the nuclear policy situation in Belgium.

The Permanent Mission of Belgium to the IAEA avails itself of this opportunity to assure the Director General of the International Atomic Energy Agency of its highest consideration.

[stamp]

(signed)

Vienna, 6 November 2014

Mr Y. Amano
Director General
International Atomic Energy Agency
Vienna

Annual figures for holdings of civil unirradiated plutonium

National totals

BELGIUM

In the table describing the situation as of 31 December 2011, no quantities are mentioned in note (i) with respect to plutonium included in lines 1 - 4 belonging to foreign bodies. This should however be corrected. The biggest part of the plutonium contained in unirradiated MOX fuel or other fabricated products at reactor sites or elsewhere (line 3) belongs to foreign bodies. This means that in note (i) the following quantities should be mentioned:

- | | | |
|---|-------------------|--------|
| - | For the year 2011 | 500 kg |
| - | For the year 2010 | p.m. |

A corrected annex B with the situation as of 31 December 2011 is added.

**ANNUAL FIGURES FOR HOLDINGS OF CIVIL UNIRRADIATED
PLUTONIUM**

National totals
BELGIUM

Corrected situation as of 31 Dec. 2011

	As of 31 Dec. 2011 (Previous year's figures in Brackets) Rounded to 100 kg <u>plutonium</u>	
1. Unirradiated separated plutonium in product stores at reprocessing plants.	0 kg	(0 kg)
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.	p.m.	(p.m.)
3. Plutonium contained in unirradiated MOX fuel or other fabricated products at reactor sites or <u>elsewhere</u> .	500 kg	(p.m.)
4. Unirradiated separated plutonium held elsewhere.	p.m.	(p.m.)

<p>Note :</p> <p>(i) Plutonium included in lines 1-4 above <u>belonging to foreign bodies.</u></p>	<p>500 kg</p>	<p>(p.m.)</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 <u>appropriate lines above. The Government with jurisdiction over the owner of the plutonium is responsible for resolving any residual difficulties.</u></p>	<p>0 kg</p>	<p>0 kg</p>
<p>(iv) <u>It is open to Governments to add any further information or explanation which they believe helpful</u></p>	<p>p.m. does not necessarily mean zero; it means less than 50 kg</p>	<p>(p.m.) does not necessarily mean zero; it means less than 50 kg</p>

Guidelines for management of plutonium

Annual figures for holdings of civil unirradiated plutonium

National totals

BELGIUM

	As of 31 Dec. 2012 (Previous year's figures in Brackets) Rounded to 100 kg <u>plutonium</u>	
1. Unirradiated separated plutonium in product stores at reprocessing plants.	0 kg	(0 kg)
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.	p.m.	(p.m.)
3. Plutonium contained in unirradiated MOX fuel or other fabricated products at reactor sites or <u>elsewhere</u> .	800 kg	(500 kg)
4. Unirradiated separated plutonium held elsewhere.	p.m.	(p.m.)

<p>Note :</p> <p>(i) Plutonium included in lines 1-4 above <u>belonging to foreign bodies.</u></p>	<p>700 kg</p>	<p>(500 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 <u>appropriate lines above. The Government with jurisdiction over the owner of the plutonium is responsible for resolving any residual difficulties.</u></p>	<p>0 kg</p>	<p>0 kg</p>
<p>(iv) <u>It is open to Governments to add any further information or explanation which they believe helpful</u></p>	<p>p.m. does not necessarily mean zero; it means less than 50 kg</p>	<p>(p.m.) does not necessarily mean zero; it means less than 50 kg</p>

**Estimated Amounts of Plutonium Contained in Spent civil
Reactor Fuel****National totals****BELGIUM**

	As of 31 Dec. 2012 (Previous year's figures in Brackets) Rounded to 1000 kg plutonium	
1) Plutonium contained in spent fuel at civil reactor <u>sites</u>	37000 kg	(35000 kg)
2) Plutonium contained in spent fuel at reprocessing plants	0 kg	(0 kg)
3) Plutonium contained in spent fuel held elsewhere	p.m.	(p.m.)

p.m. does not necessarily mean zero; it means less than 500 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.

Guidelines for management of plutonium**Annual figures for holdings of civil unirradiated plutonium****National totals****BELGIUM**

	As of 31 Dec. 2013 (Previous year's figures in Brackets) Rounded to 100 kg <u>plutonium</u>	
1. Unirradiated separated plutonium in product stores at reprocessing plants.	0 kg	(0 kg)
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.	p.m.	(p.m.)
3. Plutonium contained in unirradiated MOX fuel or other fabricated products at reactor sites or <u>elsewhere</u> .	1400 kg	(800 kg)
4. Unirradiated separated plutonium held elsewhere.	p.m.	(p.m.)

<p>Note :</p> <p>(i) Plutonium included in lines 1-4 above <u>belonging to foreign bodies.</u></p>	<p>1300 kg</p>	<p>(700 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 <u>appropriate lines above. The Government with jurisdiction over the owner of the plutonium is responsible for resolving any residual difficulties.</u></p>	<p>0 kg</p>	<p>0 kg</p>
<p>(iv) <u>It is open to Governments to add any further information or explanation which they believe helpful</u></p>	<p>p.m. does not necessarily mean zero; it means less than 50 kg</p>	<p>(p.m.) does not necessarily mean zero; it means less than 50 kg</p>

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

National totals

BELGIUM

	As of 31 Dec. 2013 (Previous year's figures in Brackets) Rounded to 1000 kg <u>plutonium</u>	
1) Plutonium contained in spent fuel at civil reactor <u>sites</u>	38000 kg	(37000 kg)
2) Plutonium contained in spent fuel at reprocessing plants	0 kg	(0 kg)
3) Plutonium contained in spent fuel held elsewhere	p.m.	(p.m.)

p.m. does not necessarily mean zero; it means less than 500 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 according to article 14 of the guidelines for the management of plutonium

(2013)

In December 2013, the Belgian Government confirmed by law its 2012 decision with respect to the phase-out of nuclear energy in Belgium:

- the principle of deactivating the nuclear reactors after 40 years of commercial electricity production is maintained;
- an exception on the previous point is introduced for one reactor, namely Tihange 1, which is allowed to operate 10 years longer;
- this gives the following closure calendar for the different nuclear reactors:
 - Doel 1: 15 February 2015
 - Doel 2: 1 December 2015
 - Doel 3: 1 October 2022
 - Doel 4: 1 July 2025
 - Tihange 1: 1 October 2025
 - Tihange 2: 1 February 2023
 - Tihange 3: 1 September 2025

The possibility to revise the above decision in case of a threat to the security of supply of electricity and in case of circumstances outside one's control has been withdrawn.
