

# Information Circular

**INFCIRC/549/Add.8/6**

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**General Distribution**

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## Communication received from the United Kingdom of Great Britain and Northern Ireland Concerning its Policies regarding the Management of Plutonium

### *Statements on the Management of Plutonium and of Highly Enriched Uranium*

1. The Director General has received a Note Verbale, dated 17 July 2003, from the Permanent Mission of the United Kingdom of Great Britain and Northern Ireland to the IAEA in the enclosures of which the Government of the United Kingdom, in keeping with its 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 its national holdings of civil unirradiated plutonium and the estimated amounts of plutonium contained in spent civil reactor fuel as of 31 December 2002.
2. The Government of the United Kingdom has also made available a statement of its annual figures for holdings of civil high enriched uranium (HEU), and of civil depleted, natural and low enriched uranium (DNLEU) in the civil nuclear fuel cycle, as of 31 December 2002.
3. In the light of the requests expressed by the Government of the United Kingdom in its Note Verbale of 1 December 1997 concerning its policies regarding the management of plutonium (INFCIRC/549 of 16 March 1998) and in its Note Verbale of 17 July 2003, the Note Verbale of 17 July 2003 and the enclosures thereto are attached for the information of all Member States.

Note No: 18/03

The Permanent Mission of the United Kingdom of Great Britain and Northern Ireland to the United Nations and the International Organisations in Vienna presents its compliments to the Director-General of the International Atomic Energy Agency and has the honour to refer to its Note Verbale No 001/97 of 1 December 1997, enclosing Guidelines specifying the policies that the Government of the United Kingdom of Great Britain and Northern Ireland has decided to apply to the management of plutonium.

In addition, that communication recognised the sensitivity of high enriched uranium and the need to manage stocks of such material with the same sense of responsibility as the plutonium covered by the Guidelines.

In keeping with the United Kingdom's commitment under the Guidelines on Plutonium to make available annually, information on its national holdings of civil unirradiated plutonium and of plutonium contained in spent civil reactor fuel, the Government of the United Kingdom encloses with this Note, the figures for the United Kingdom's holdings as at 31 December 2002. These are set out in accordance with Annexes B and C of the Guidelines. The Government of the United Kingdom also encloses with this Note a statement of the United Kingdom's national holdings of civil high enriched uranium and civil depleted, natural and low enriched uranium (DNLEU) in the civil nuclear fuel cycle as at 31 December 2002. The Government of the United Kingdom would also draw attention to the explanatory note attached to the figures.

The Government of the United Kingdom of Great Britain and Northern Ireland requests the Director-General of the International Atomic Energy Agency to circulate this Note and its attachment to all Member States for their information.

The Permanent Mission of the United Kingdom of Great Britain and Northern Ireland avails itself of this opportunity to renew to the Director-General of the International Atomic Energy Agency the assurances of its highest consideration.



UNITED KINGDOM MISSION

VIENNA

17 July 2003

## UNITED KINGDOM

### ANNUAL FIGURES FOR HOLDINGS OF CIVIL UNIRRADIATED PLUTONIUM

#### National Totals

as of 31 Dec 2002

(Previous year's figures  
in brackets) Rounded to  
100 kg plutonium with  
quantities less than 50 kg  
reported as such

#### TONNES

1. Unirradiated separated plutonium in product stores at reprocessing plants.	<b>86.5</b>	(79.9)
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.	<b>0.9</b>	(0.8)
3. Plutonium contained in unirradiated MOX fuel or other fabricated products at reactor sites or elsewhere.	<b>1.9</b>	(1.7)
4. Unirradiated separated plutonium held elsewhere.	<b>1.5*</b>	(0)
Total	<b>90.8</b>	(82.4)

#### Note:

- |                                                                                                                              |             |        |
|------------------------------------------------------------------------------------------------------------------------------|-------------|--------|
| (i) Plutonium included in lines 1–4 above belonging to foreign bodies.                                                       | <b>20.9</b> | (17.1) |
| (ii) Plutonium in any of the forms in lines 1–4 above held in locations in other countries and therefore not included above. | <b>0.9</b>  | (0.9)  |
| (iii) Plutonium included in lines 1–4 above which is in international shipment prior to its arrival in the recipient State.  | <b>0</b>    | (0)    |

\* The amount of plutonium present as “work in progress” at reprocessing plants has been split so that separated material in the process is now included in this category, as are small quantities of plutonium in material forms for which current plans envisage re-cycle via reprocessing but which is not in the form of spent fuel.

## ESTIMATED AMOUNTS OF PLUTONIUM CONTAINED IN SPENT CIVIL REACTOR FUEL

### National Totals

as of 31 Dec 2002

(Previous year's figures in brackets) Rounded to 1000 kg plutonium with quantities less than 50 kg reported as such

1. Plutonium contained in spent fuel at civil reactor sites.	<b>7</b>	(6)
2. Plutonium contained in spent fuel at reprocessing plants	<b>31</b>	(35)
3. Plutonium contained in spent fuel held elsewhere.	<b>Less than 500 kg</b>	(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.

### **Definitions:**

- Line 1: covers estimated amounts of 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.

## UNITED KINGDOM

### ANNUAL FIGURES FOR HOLDINGS OF CIVIL HIGH ENRICHED URANIUM (HEU)

<u>National Totals</u>	As of 31 Dec 2002 (Previous year's figures in brackets)	
1. HEU stored at enrichment plants	<b>0kg</b>	(0 kg)
2. HEU at fabricating plants or at other reprocessing facilities	<b>566kg</b>	(569 kg)
3. HEU at civil reactor sites	<b>0kg</b>	(0 kg)
4. HEU at locations other than civil reactor sites, enrichment Fabricating and reprocessing plants (e.g. laboratories, research centres)	<b>754kg</b>	(742 kg)
5. Irradiated HEU at civil reactor sites	<b>6kg</b>	(8 kg)
6. Irradiated HEU at locations other than	<b>253kg</b>	(276 kg)
Total	<b>1,579kg</b>	(1,595 kg)

The definition of high enriched uranium (HEU) is uranium enriched to 20% or more in Uranium235

#### **Annual figures for holdings of civil depleted, natural and low enriched Uranium (DNLEU) in the civil fuel cycle:**

**88,100 tonnes** (90,400 tonnes)\*

# To nearest 100 tonnes

## **EXPLANATORY NOTE**

The figures show that stocks of unirradiated plutonium in the UK totalled 90.8 tonnes at the end of 2002. Major changes from the corresponding figures for 2001 are a consequence of continuing reactor and reprocessing operations (e.g. as reflected in the increased quantity of '*unirradiated separated plutonium in product stores at reprocessing plants*'). Other, smaller, changes are because of the return of MOX fuel from Japan and a review of reporting categories for some of the plutonium inventories concerned. The latter has resulted in plutonium present as 'work in progress' at reprocessing plants being split so that separated material in the plutonium finishing lines is reported in the category '*unirradiated separated plutonium held elsewhere*' along with small quantities of plutonium in material forms for which current plans envisage re-cycle via reprocessing but which is not in the form of spent fuel.