

Information Circular

INFCIRC/549/Add.1/21

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General Distribution

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Communication Received from Japan Concerning its Policies Regarding the Management of Plutonium

1. The Secretariat has received a note verbale dated 31 July 2018 from the Permanent Mission of Japan to the IAEA in the enclosures of which the Government of Japan, 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 and the estimated amounts of plutonium contained in spent civil reactor fuel as of 31 December 2017. A renewed policy direction explaining the Basic Principles on Japan’s Utilization of Plutonium was also enclosed with the note verbale.
2. In light of the request expressed by the Government of Japan 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 31 July 2018 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).

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NOTE VERBALE

The Permanent Mission of Japan to the International Organizations in Vienna presents its compliments to the Director General of the International Atomic Energy Agency and has the honour, on behalf of the Government of Japan, to refer to its Note Verbale of 1 December 1997 (Ref. No.: JPM/NV-185-97), enclosing Guidelines specifying the policies that the Government of Japan has decided to apply to the management of plutonium.

In this regard, the Government of Japan encloses with this Note an annual statement of its national holdings of civil unirradiated plutonium and plutonium contained in spent civil reactor fuel. The figures in this statement show Japan's holdings as of 31 December 2017 and are set out in accordance with Annexes B and C of the above-mentioned Guidelines. The Government of Japan also encloses with this Note a renewed policy direction explaining the Japan Atomic Energy Commission's Basic Principles on Japan's Utilization of Plutonium.

The Permanent Mission of Japan to the International Organizations in Vienna avails itself of this opportunity to renew to the Director General of the International Atomic Energy Agency the assurances of its highest consideration.

The Government of Japan requests the Director General of the International Atomic Energy Agency to circulate this note and its attachments, to all Member States for their information.

31 July 2018
Vienna
To the Director General of the
International Atomic Energy Agency



ANNUAL FIGURES FOR HOLDINGS OF CIVIL UNIRRADIATED PLUTONIUM

National Totals

as of 31 Dec. 2017.
 (Previous year's
 figures in brackets)
 Rounded to 100kg
 plutonium with
 quantities less than
 50kg reported as such

[tonnes Pu]

1. Unirradiated separated plutonium in product stores at reprocessing plants.	<u>3.9</u> (<u>3.9</u>)
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.	<u>3.4</u> (<u>3.4</u>)
3. Plutonium contained in unirradiated MOX fuel, including that loaded into a reactor core prior to use, or other unirradiated plutonium in fabricated products at reactor sites or elsewhere.	<u>3.2</u> (<u>2.5</u>)
4. Unirradiated separated plutonium held elsewhere	<u>0.1</u> (<u>0.1</u>)

Note:

(i) Plutonium included in lines 1-4 above belonging to foreign bodies. 0 (0)

(ii) Plutonium in any of the forms in lines 1-4 above held in locations in other countries and therefore not included above. 36.7 (37.1)

(iii) Plutonium not included in lines 1-4 above which is in international shipment prior to its arrival in the recipient State. 0 (0)

**ESTIMATED AMOUNT OF PLUTONIUM CONTAINED IN SPENT CIVIL
REACTOR FUEL**

National Totals

as of 31 Dec. 2017.
(Previous year's
figures in brackets)
Rounded to 1000kg
plutonium with
quantities less than
500kg reported as such

[tonnes Pu]

1. Plutonium contained in spent fuel at civil reactor sites.	138	(<u>137</u>)
2. Plutonium contained in spent fuel at reprocessing plants.	27	(<u>27</u>)
3. Plutonium contained in spent fuel held elsewhere.	<u>less than 500kgPu</u>	(<u>less than 500kgPu</u>)

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 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.

The Basic Principles on Japan's Utilization of Plutonium

July 31, 2018

Japan Atomic Energy Commission

Japan has been using nuclear energy exclusively for peaceful purposes and upholding the principle of not possessing plutonium without specific purposes under the Atomic Energy Basic Act. While taking into account recent circumstances surrounding the use of nuclear energy not only in Japan but also in the world, Japan, cooperating with the international community and attaching greatest importance to nuclear non-proliferation, follows the policies below as it promotes the utilization of plutonium, in order to enhance transparency of its peaceful use.

Based on the above-mentioned views, Japan will reduce the size of its plutonium stockpile. Based upon the realization of the following measures, the stockpile is not to increase from the current level:

1. Approve reprocessing plans under the Spent Nuclear Fuel Reprocessing Implementation Act so that reprocessing is to be carried out only to an extent necessary for steady plutonium power generation, reflecting the operational situation of the Rokkasho Reprocessing Plant (RRP), the MOX Fuel Fabrication Plant,* and MOX-burning reactors; Instruct the operators and confirm that the produced MOX fuel is to be fully consumed in a timely manner;
2. Instruct the operators so as to secure a balance between demand and supply of plutonium, minimize the feedstock throughout the process between reprocessing and irradiation, and reduce the feedstock to a level necessary for proper operation of the RRP and other facilities;
3. Work on reducing Japan's plutonium stockpile stored overseas through measures including promoting collaboration and cooperation among the operators;
4. Examine all options such as use and disposal of plutonium that is associated with research and development purposes, if there is no concrete plan for its immediate use, while ensuring flexibility depending on the situations; and
5. Steadily promote efforts toward expanding storage capacity for spent fuel.

In addition, in order to enhance transparency, electric utilities and Japan Atomic Energy Agency (JAEA) are expected to develop plutonium utilization plans anew, which describes owners, the amount of plutonium in possession and the purposes of plutonium utilization, and then release them every fiscal year.

*The Japan Nuclear Fuel Limited (JNFL) plans to complete the construction of the RRP and the MOX Fuel Fabrication Plant in the first half of FY2021 and FY2022 respectively.