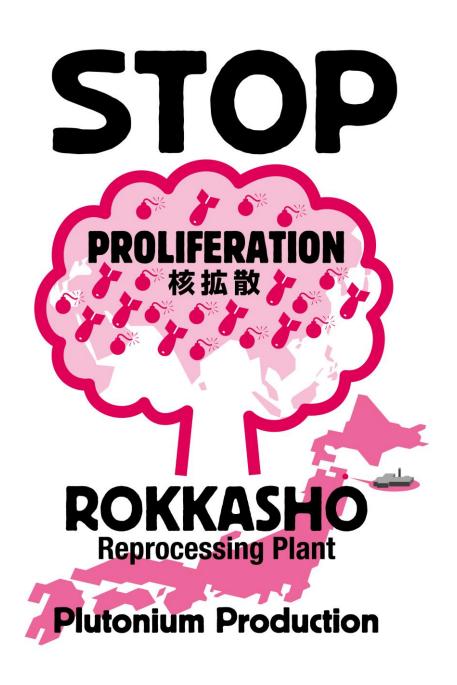
It's NPT time. Japan, do you know where your plutonium is?





Non-proliferation Primer for Japan

Kakujoho (Nuclear Information) website http://kakujoho.net/e/index.html

See how high you score on the basics of Japan's plutonium separation policy. Depending on your score, please take the actions recommended at the end, bearing in mind that it only took about 6 kg of plutonium to destroy the city of Nagasaki.

Were you aware of the following? If so, you score one for each item.

- 1. Japan plans to complete the construction of the Rokkasho Reprocessing Plant in March 2016 with the operation starting soon after. The plant has a capacity to separate 8 tons (about 1000 bombs worth) of plutonium a year and is the only industrial scale plant in a non-nuclear weapon state.
- 2. During the March 2014 Hague Nuclear Security Summit, Prime Minister Abe and President Obama "pledged to remove and dispose all highly-enriched uranium (HEU) and separated plutonium from the Fast Critical Assembly (FCA) at the Japan Atomic Energy Agency (JAEA) in Japan". Their pledge involved 331kg of plutonium. They went on to "encourage others to consider what they can do to further HEU and plutonium minimization".
- 3. On September 16, 2014, the Japan Atomic Energy Commission's (JAEC) secretariat announced that as of the end of 2013 Japan's plutonium had increased to 47 tons from 44 tons at the end of 2012.
- 4. Of the 3 ton increase, 2.3 tons is from the allocation to Japan by the United Kingdom, where some of Japan's spent fuel has been reprocessed: a major allocation after a hiatus period since the end of 2005. Surprise: The separation of Japanese plutonium from Japan's spent fuel in that country ended in January 2006. The contract stipulates that the total amount of plutonium in Japan's spent fuel sent to the United Kingdom be allocated to Japan eventually over the years in a method irrelevant to the amount actually separated from Japan's spent fuel in any particular year. Sounds complicated? The minutes of the September 16, 2014 JAEC meeting suggest that commissioners didn't understand the situation either. Question: Is there any more to be allocated to Japan?
- 5. Surprise: After checking with utilities, on November 13, 2014 the JAEC secretariat admitted to a Diet member's office that it found that about one ton more plutonium will be allocated to Japan's stockpile held in the United Kingdom, although as of the

- end of April 2015, the JAEC has not officially announced this fact.
- 6. Surprise again: The remaining 640kg out of the 3 ton increase represents plutonium in the plutonium uranium mixed oxide (MOX) fuel loaded into the Genkai unit 3 reactor in March 2011, which has not been restarted. The JAEC secretariat had previously deleted this unirradiated amount from the total of separated unirradiated plutonium simply because it was put into the reactor.
- 7. In 1991, the Japanese government announced in a report published by the Nuclear Fuel Subcommittee of the JAEC, that it would "not possess more plutonium than necessary in the implementation of the nuclear fuel recycling program."
- 8. In December 1997, Japan reiterated its policy of not possessing surplus plutonium in its Plutonium Utilization Plan of Japan, sent voluntarily to the International Atomic Energy Agency (IAEA), saying: "The nuclear fuel cycle is promoted based on the principle that plutonium beyond the amount required to implement the program is not to be held, i.e. the principle of no surplus plutonium."
- 9. The Japanese government didn't talk about the abovementioned 2.3 tons (plus one ton) to be allocated in addition to the declared amount of 44 tons as of the end of 2012 when discussing the supply and requirement of plutonium to assess the wisdom of starting the operation of the Rokkasho Reprocessing Plant to separate even more plutonium.
- 10. Each year since 1994, Japan has released information about the amount of separated plutonium it possessed at the end of the previous year, but JAEC's secretariat says it doesn't have records prior to 1993.
- 11. The safeguards section of the Nuclear Regulation Authority (NRA) says it only has data since 1978, when Japan accepted IAEA's safeguards. It alleges that it does not have data for separated plutonium even for 1978-1992, providing only the total amount of plutonium including unseparated plutonium in the spent fuel.
- 12. Japan's Ministry of Education, Culture, Sports, Science and Technology (MEXT) with jurisdiction over the pilot scale Tokai Reprocessing Plant says it has the annual data for the amount of plutonium separated there only since 2005. The plant started operation in 1977.

If you scored between 0 and 6 out of 12, please strongly urge Japan not to start the operation of the Rokkasho Reprocessing Plant and to assemble and release more information on its plutonium.

If you scored between 7 and 12 out of 12, please of course strongly request Japan not to start the operation of the Rokkasho Reprocessing Plant and to assemble and release more information on its plutonium.

Please talk to Japanese diplomats/officials and send your message to the Embassy of Japan in your country or the Permanent Mission of Japan to the United Nations (japan.mission@dn.mofa.go.jp), with a copy to Kakujoho website operator Masa Takubo (takubomasa@ybb.ne.jp)

List of Japanese Embassies: http://www.mofa.go.jp/about/emb_cons/mofaserv.html Addendum: Double-check your bank records

The table below is a translated version of the data provided by the safeguards section of NRA in response to a request by a Diet member's office for the annual amount of separated plutonium prior to 1993. The table shows the amount of combined separated and unseparated plutonium, as discussed in point 11 above.

Amount of plutonium in Japan (1978-1993)

Year	plutonium element weight (Put) (kg)	fissile material weight (Puf) (kg)
1978	3,304	2,544
1979	4,915	3,811
1980	6,974	5,348
1981	8,858	6,690
1982	9,640	7,217
1983	11,171	8,340
1984	13,094	9,745
1985	15,074	11,205
1986	17,064	12,650
1987	19,092	14,022
1988	22,825	16,683
1989	24,578	17,885
1990	26,694	19,272
1991	29,883	21,462
1992	33,570	23,965
1993	38,837	27,606
Total	285,573	208,444

The numbers for each year show the cumulative amount in each year like the amount shown in your bank record.

The Diet member's office: "What do the totals at the bottom mean?"

NRA: "We just added up each item. There is no special meaning. (August 1, 2014)" Wouldn't you like your bank to apply the same math?