

Secret Plutonium Shipment Exposes Failure of Non Proliferation and Security Policy in Advance of Nuclear Security Summit and the Threat from Japanese Stockpiling Program

Armed British transport ships expected to arrive Tokai port Sunday

March 18th 2016 Tokyo...A shipment of weapons-grade plutonium scheduled to depart the port of Tokai, Ibaraki prefecture this coming weekend highlights the failure, but also the proliferation risks, of the current Japanese nuclear policy, a coalition of five non-governmental organizations warned today. A cargo of 331kg of plutonium will be loaded on to the Pacific Egret, an armed British nuclear transport ship, prior to departure under armed escort to the United States. It will be the largest shipment of separated plutonium since 1.8 tons of plutonium was delivered to Japan by controversial Akatsuki-maru in 1992. The two month voyage to the Joint Base Charleston-Weapons Station will then see the plutonium dumped at the Department of Energy Savannah River Site (SRS) in South Carolina.(1) The U.S. National Nuclear Security Administration, which is responsible for the shipment, has identified that storage in Japan poses a security risk justifying its removal.(2)

Citizen Nuclear Information Center (Japan); Green Action (Japan); Savannah River Site Watch (U.S.); CORE (England), and Greenpeace, condemn the shipment as a dangerous distraction from the major problem in Japan which is its overall nuclear energy policy, where over 9 tons of plutonium remains stockpiled and there are plans to produce many tons more during the coming decade. The representatives of the five organizations have worked together over the past quarter century against Japan's plutonium and nuclear fuel cycle program.

Two-hundred and thirty six kilograms of the Tokai plutonium was supplied to Japan from the UK, with 2 kilograms from France and the remainder from the U.S. for neutronic testing purposes at the Japan Atomic Energy Agency Fast Critical Assembly facility at Tokai-mura in Ibaraki. The facility has been used as a basis for Japan's failed fast breeder reactor program, in particular the MONJU reactor. For more than five decades, Japanese nuclear policy has been based on the production and use of plutonium as a nuclear fuel. However, the failure of both its breeder program and plans to use plutonium as mixed oxide (MOX) fuel in light water reactors, has led to Japan acquiring the largest stockpile of weapons usable plutonium of any non nuclear weapon state.

For the U.S. and Japanese government, the Tokai shipment will be mistakenly hailed as demonstrating their commitment to reducing the threat from fissile materials. Both Prime Minister Abe and President Obama plan to announce the 'success' of the removal from Japan, at the fourth Nuclear Security Summit from March 31st-April 1st in Washington, D.C. (3), while Japan will be desperate to avoid any discussion of the proliferation and security threat posed by its plutonium fuel cycle program.

"If 331 kg of plutonium warrants removal from Japan on the grounds of its vulnerability and in the interests of securing nuclear weapons material, then there is no credible justification for Japan's current program and future plans to increase its plutonium stockpiling. Hailing a shipment of hundreds of kilograms of plutonium as a triumph for nuclear security, while ignoring over 9 tons of the weapons material stockpiled in Japan and in a region of rising tensions, is not just a failure of nuclear non proliferation and security policy but a dangerous delusion," said Shaun Burnie, senior nuclear specialist at Greenpeace Germany, who is currently in Japan.

In total, Japan's current stockpile is around 46,700 kg, of which 9,528kg is located in Japan, the remaining balance being stored in France and the UK. The shipment from Tokai port will reduce its stockpile to 9,197 kg. Less than 8kg is sufficient for one nuclear weapon. While the Tokai shipment consists of weapons grade plutonium, and the vast bulk of Japan's remaining stockpile is designated reactor-grade plutonium, from a security and non proliferation perspective there is no practical distinction and reactor-grade plutonium is capable of being used for the manufacture of nuclear weapons --- a point highlighted by Shigeru Ishiba, a former Liberal Democratic Party Defense Minister, when speaking in 2011 described Japan's nuclear energy program as **"a tacit nuclear deterrent"**.(4)

Two reactors, Takahama 3 and 4, owned by Kansai Electric, began operation in January and February 2016 loaded with plutonium MOX fuel, with unit 3 operating with 24 assemblies containing 1,088kg of plutonium and unit 4 with 4 assemblies containing 184kg of plutonium. Unit 4 shutdown due to an electrical failure three days after start up, while unit 3 was forced to shutdown on March 10th following a court order. Both reactors remain shutdown and are subject of a court injunction preventing operation issued by the Otsu district court, Shiga prefecture on March 9th. They are expected to be non operational for many months. Of the 26 reactors under review by the Nuclear Regulation Authority (NRA), Ikata-3, Genkai-3 and Tomari-3 are all intended to operate with plutonium MOX fuel.

"On current plans, and if ever the Rokkasho-mura reprocessing plant begins operation, Japan's program could yield as much as 93,000kg by 2025 - most of which will remain unused. The reactor program in Japan is in crisis

with no credible program for either restarting most reactors or using large amounts of this plutonium. If ever there was a time to abandon its current doomed nuclear energy policy, it is now. The Obama administration in its last year has an opportunity to step up and actively reduce the spiraling proliferation dynamic in East Asia - this should be top of the agenda in Washington instead of being ignored. The next step is to challenge the basis of the U.S.-Japan nuclear cooperation agreement which runs to 2018 - approval for Japan to continue acquiring plutonium must be reversed," said Burnie.

The Department of Energy has no plans for final disposal of the Japanese plutonium, which will be added to the existing stockpile of 13 tons at the SRS, demonstrating that the shipment is largely a commercial dumping operation to secure funds for the beleaguered weapons material production site near Aiken, South Carolina, as pointed out by Savannah River Site Watch.

For more detailed analysis of Japan's plutonium program and future prospects see [Nuclear Proliferation in Plain Sight: Japan's Plutonium Fuel Cycle—A Technical and Economic Failure But a Strategic Success](#), Japan Focus, March 2016.

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Notes

1 - The Pacific Egret and its escort ship Pacific Heron are lightly armed UK flagged vessels and arrived in Kobe port from Barrow-in-Furness, England on March 4th. The Egret docked in Tokai for pre-transport logistics last week. Both ships after departing Tokai port will sail together most likely through the South Pacific to the east coast of the United States.

2- The U.S. National Nuclear Security Administration's Office of Material Management and Minimization (M3), formerly known as the Global Threat Reduction Initiative (GTRI), describes itself as a part of the U.S. national security strategy of preventing the acquisition of nuclear materials for use in weapons of mass destruction (WMDs) and other acts of terrorism. The M3 mission is to reduce vulnerable nuclear materials located primarily at civilian sites worldwide, and in the case of Japan the NNSA identified gap nuclear material (plutonium), which presents a potential threat to nonproliferation goals and may not have adequately safe and secure management options – see Environmental Assessment For Gap Material Plutonium – Transport, Receipt, And Processing, DOE/EA-2024 December 2015, <http://energy.gov/sites/prod/files/2015/12/f27/EA-2024-FEA-2015.pdf>

3 - During the March 2014 Hague Nuclear Security Summit, Prime Minister Abe and President Obama “pledged to remove and dispose of 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. The 2016 summit will be the last. See <http://nis2016.org>

4- "In Japan, Provocative Case for Staying Nuclear --- Some Say Bombs' Potential as Deterrent Argues for Keeping Power Plants Online", Wall Street Journal, October 28, 2011, <http://www.wsj.com/articles/SB10001424052970203658804576638392537430156>