



Savannah River Site Watch

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<http://www.srswatch.org/>

May 15, 2017

For Immediate Release

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DOE Oversight Agency Confirms Initial Receipt, Dumping of Canadian Liquid High Level Nuclear Waste at Savannah River Site; DNFSB Reveals Radiation Shielding Problems in Handling Liquid HLW in H-Canyon

DOE's Failure to Release Information Prompts FOIA Request by SRS Watch

Columbia, SC – Receipt of controversial shipments of highly radioactive liquid waste from Canada has begun arriving at the U.S. Department of Energy's Savannah River Site (SRS), according to the Defense Nuclear Facilities Safety Board (DNFSB). The handling of the initial shipment faced problems at SRS due to inadequacies in a container designed to shield workers from radiation emitted from the waste.

The waste, a byproduct of medical isotope production at Chalk River National Labs in Canada, contains a host of highly radioactive fission products. Once processed in the 61-year-old H-Canyon reprocessing plant to remove uranium, the residual waste is to be dumped in the aging SRS waste tanks. The liquid waste consist of about 6000 gallons (23,000 liters) stored in a single tank - Fissile Solution Storage Tank (FISST) - at Chalk River and would be shipped in up to 150 overland transports via unspecified routes from Canada to SRS.

DOE has remained silent on the matter and refused to inform the public in South Carolina that the waste imports have begun and that handling problems have been encountered, according to Savannah River Site Watch. Now that the DNFSB has revealed the initial shipment and due to the radiation shielding problems, DOE should provide details about the shipments at the [SRS Citizens Advisory Board](#) meeting in Augusta, Georgia on May 23, according to SRS Watch.

"For both non-proliferation and environmental reasons, the best option remains management of this liquid high-level waste in Canada," said Tom Clements, director of SRS Watch. "The unprecedented and unjustified import of the highly radioactive liquid waste from Canada to SRS will only place an additional burden on the aging SRS waste tanks and slow down the urgent removal of waste from those tanks."

In a DNFSB weekly report of April 21, 2017 (<https://tinyurl.com/ksjpcf8>), the following was reported about receipt of the Canadian liquid HLW at SRS. The report points out the radiological shielding problems that occurred by using a defective "[pig](#)" containing the waste and designed to shield workers from radiation:

"Target Residue Material (TRM): H-Canyon personnel started processing the first shipment of liquid Highly Enriched Uranium (HEU) this week. Each container of HEU is pulled from the shipping cask into a shielded "pig" that provides radiological shielding for H-Canyon personnel. After loading a pig, radiological protection (RP) identified an unexpected hotspot on the side of the pig indicating that the pig was not providing adequate radiological shielding. RP labeled the hotspot before H-Canyon personnel relocated the pig so the hotspot would be facing the wall. H-Canyon personnel did not identify any similar issues on the other pigs and are planning to use the one spare pig for future evolutions. All of the containers have

been removed from the cask and H-Canyon personnel have begun transferring the HEU into H-Canyon for processing.”

In response to the report of problems in shielding workers from radiation exposure from the liquid HLW cans, [SRS Watch has filed a Freedom of Information Act request](#) for more information. (linked below)

Earlier this year, environmental groups, including SRS Watch and the Sierra Club, lost a [lawsuit](#) requesting the court require DOE to prepare a full Environmental Impact Statement on the shipment. Thus, an in-depth DOE analysis of transport risks, impacts of processing and disposal at SRS and alternative methods of management in Canada was avoided. The groups still argue that the option to downblend the US-origin highly enriched uranium in the liquid waste in Canada and then solidify it is best option from nuclear non-proliferation and environmental perspectives. That DOE-backed downblending option has been proved viable via such processing of similar liquid nuclear waste in Indonesia. (See Federal Register, Feb. 22, 2016 – [linked here.](#))

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Notes:

1) **SRS Watch Freedom of Information Act request, May 15, 2017:** “FOIA Request for any Documents or Reports Related to Receipt, Off Loading and Handling of Canadian Liquid High-Level Waste at H-Canyon, Especially as it Applies to Radiological Shielding Problems,” linked here:

<https://tinyurl.com/m2ht8po>

2) **SUPPLEMENT ANALYSIS FOR THE FOREIGN RESEARCH REACTOR SPENT NUCLEAR FUEL ACCEPTANCE PROGRAM Highly Enriched Uranium Target Residue Material Transportation (DOE/EIS-0218-SA-07), November 2015** – a lower level document than the EIS requested by enviro. groups

https://energy.gov/sites/prod/files/2015/12/f27/Canadian%20HEU%20SA_%20Nov%202015%20Final%20PDF%20Version_signed.pdf

3) **SRS Watch news release, December 8, 2015** – with many useful links in “notes” section:

In Quietly Released Environmental Document, DOE Refuses to Analyze Disposal of Canadian Liquid High-Level Nuclear Waste in Canada, Supports Processing and Dumping at Savannah River Site -- Under Guise of Nuclear Non-Proliferation, New “Supplement Analysis” Dodges Substantive Discussion of Terrorist Risks and Environmental Impacts

http://www.srswatch.org/uploads/2/7/5/8/27584045/srs_watch_on_canadian_waste_dumping_at_srs_dec_8_2015.pdf

4) **Radioactive Roads Highly Radioactive Liquid Transport from Chalk River, Ontario, to SRS, South Carolina**, March 2017, by Canadian Coalition for Nuclear Responsibility, March 2017 – with cask photos and analysis of radioactive contents of liquid HLW:

http://www.ccnr.org/TRM_Transport_CRL-SRS.pdf

5) **Evaluation of the Nuclear Legacy Liabilities Program (NLLP) of the Energy Sector, Natural Resources Canada**, 2011, Canadian authorities had planned to downblend the contents of the Fissile Solutions Storage Tank (FISST) - but it appears that a \$60 million payment to SRS to accept the waste became the driver for the deal. See <http://www.nrcan.gc.ca/evaluation/reports/2011/814#c15>