

April 14, 2015

Secretary of Energy Ernest Moniz  
U.S. Department of Energy  
1000 Independence Ave., SW  
Washington, DC 20585

Administrator Frank Klotz  
National Nuclear Security Administration  
U.S. Department of Energy  
1000 Independence Ave., SW  
Washington, DC 20585

**Request for Preparation of Nuclear Nonproliferation Assessment on Reprocessing  
of German Graphite Spent Fuel at Savannah River Site (SRS)**

Dear Secretary Moniz & Administrator Klotz:

We are writing to you to request that a nuclear nonproliferation impact assessment be prepared by the Department of Energy concerning a new reprocessing technique being developed by the Savannah River National Laboratory (SRNL). The new reprocessing method would be applied to commercial graphite spent nuclear fuel proposed to be imported from Germany to the Savannah River Site (SRS). Given the international proliferation implications of this new reprocessing technique, it is imperative that DOE conduct a thorough nonproliferation impact analysis of it.

The new reprocessing technique being developed by SRNL involves the chemical treatment to remove uranium from graphite spent fuel from two closed gas-cooled reactors in Germany. Some of the 900,000 irradiated graphite spheres from the AVR and THTR commercial reactors, both of which were connected to Germany's electricity grid and were closed in the 1980s, originally contained both low-enriched uranium and some may yet contain small amounts of U.S.-origin highly enriched uranium.

For most of the 25 years since the reactors ceased operation, the disposal of this spent fuel was slated for Germany and it was only in 2012 that its export to the US was raised. As export of commercial spent fuel, especially for reprocessing, is illegal under German law, the proposal is facing daunting legal hurdles but DOE, for now, continues to pursue the proposal.

This unprecedented import into the U.S. of commercial spent fuel is being proposed by DOE's Office Environment Management (EM), which is now preparing a draft "environmental assessment" (EA) on certain environmental aspects on the management of the spent fuel, including the waste streams produced by the reprocessing of it. As the EA is not a decisional document on the overall matter of the reprocessing and disposal of the German spent fuel, a nuclear nonproliferation impact assessment must be prepared to help in the decision-making process.

The reprocessing of the spent fuel could take place in the aging H-Canyon reprocessing plant at SRS. As the H-Canyon, which has recently faced operational issues and is slated to be closed in 2020, is neither safeguarded by the International Atomic Energy Agency nor regulated by the U.S. Nuclear Regulatory Commission, the preparation of the nonproliferation assessment is made even more urgent. As Germany would evidently pay for transport and reprocessing of the spent fuel, there are indications that the proposal is being sought by SRS as a way to help pay for H-Canyon operations, which are around \$150 million per year or more. (DOE must clarify if Germany would also pay for long-term storage at SRS of high-level waste stream resulting from the fuel's reprocessing at SRS or for the disposal of that waste in a geologic repository, as required by the Nuclear Waste Policy Act.)

Unfortunately, it appears that no nonproliferation impact assessment is being prepared by DOE either in conjunction with the preparation of the draft EA or as part of the wider political and technical considerations of the import and reprocessing of the spent fuel at SRS. An EM spokesman at the Savannah River Site has stated that EM does not prepare proliferation assessments and a response to a Freedom of Information Act request to the National Nuclear Security Administration reveals that no non-proliferation impact assessment has been prepared by the NNSA's Office of Nuclear Non-Proliferation (NA-20) on the new technique being developed to reprocess the graphite spent fuel.

It also appears that no nonproliferation assessment is being prepared by any Germany entity. It is unknown if DOE intends to share technical details of the reprocessing technique with Germany or with any other country that is pursuing gas-cooled reactors fueled with graphite fuel. It is also unknown if DOE has interest in reprocessing spent graphite fuel from long-closed US gas-cooled reactors, such as Peach Bottom Unit 1 in Pennsylvania or the Fort St. Vrain reactor in Colorado.

Given the proliferation implications associated with any reprocessing method, defined as removal of uranium and/or plutonium from spent fuel, it is imperative that DOE immediately prepare a publicly available nuclear nonproliferation impact assessment on the reprocessing of the German graphite spent fuel and that the public be allowed to have input into the preparation of that document.

Thank you for your consideration of this request and for a response to it. Please direct your response to Tom Clements of Savannah River Site Watch (1112 Florence Street, Columbia, SC, 29201, tel. 803-834-3084, tomclements329@cs.com).

Sincerely,

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