

Say No to Foreign Nuclear Waste

DOE Plans Unprecedented Import of Commercial Spent Fuel from Germany to Savannah River Site

by Tom Clements

The U.S. Department of Energy (DOE) has moved a step closer to what is believed to be the first import into the United States from a foreign country of highly radioactive commercial spent nuclear fuel.

No disposition path exists for byproduct nuclear waste if German spent fuel is brought to the Savannah River Site for processing to remove highly enriched uranium (HEU). Such highly radioactive nuclear waste will only complicate the daunting task now facing SRS to clean up the nuclear waste already at the site.

DOE provided details in a June 4, 2014 Federal Register notice (<http://www.gpo.gov/fdsys/pkg/FR-2014-06-04/pdf/2014-12933.pdf>) stating that an “environmental assessment” (EA) would be prepared to “analyze the potential

environmental impacts of a proposal to accept, process, and disposition” of the import of spent fuel, in the unusual form of graphite spheres containing uranium and thorium, from the long-shuttered experimental gas-cooled reactors in Germany. The unusual spent fuel consists of 895,000 irradiated graphite spheres the size of billiard balls now stored in 455 casks each weighing 30 metric tons.

The DOE proposes to import the hard-to-manage spent fuel over a period of three years via the port at Joint Base Charleston in Charleston, South Carolina and ship the casks by rail to SRS.

The notice states that the spent fuel contains “approximately 900 kilograms (kg) of HEU from the United States. The used nuclear fuel is composed of kernels containing thorium and U.S.—origin HEU embedded in thousands of small graphite spheres. The United States provided the HEU to Germany between 1965 and 1988. The fuel was irradiated at the Arbeitsgemeinschaft Versuchsreaktor (AVR) reactor, which operated from 1967 to 1988, and the Thorium High Temperature Reactor (THTR)-300, which operated from 1983 to 1989.” Both of those reactors were commercial experimental power reactors that did utilize some US-supplied HEU (bomb-grade uranium).

As SRS has never received commercial spent fuel before, there is concern that this proposal could set a precedent to import more such material. As there is no final disposition plan for the waste, it could end up being stored for the long term at the site.

According to Savannah River Site Watch (www.srswatch.org), which has worked in conjunction with the Sierra Club on nuclear issues in the state, the proposal is being couched in nuclear nonproliferation terms but is really waste dumping by Germany. SRS is motivated to take the waste as it would make millions of dollars to keep open the aging H-Canyon reprocessing plant, which separated nuclear weapons materials during the Cold War.

As it is a DOE facility and exempt from oversight, the H-Canyon is not monitored by the International Atomic Energy Agency. This places Germany in the embarrassing and possibly untenable position of shipping commercial spent fuel to a reprocessing plant not under “safeguards” designed to monitor and account for handling of weapon-usable fissile material.

“While DOE is presenting the import of this spent fuel as step being taken for nuclear

non-proliferation purposes, it is clear that the main driver is the lack of will by Germany to properly address its own nuclear waste problem,” said Tom Clements, director of Savannah River Site Watch. Various public interest groups in Germany, which alerted SRS Watch about the matter in early 2013, are concerned about the proposal.

According to SRS Watch, given a halt to plans to develop a high-level nuclear waste repository in the United States, the Federal Register notice inaccurately states that the German waste would be brought to SRS for disposition. “DOE is totally erroneous in presenting that a disposition path exists in the U.S. as such is clearly not the case,” said Clements. “DOE must clarify to the U.S and German public that there is no known disposition path in the U.S. for the German commercial nuclear waste being considered for import and that it could be orphaned at SRS.”

The notice mentions three possible ways to manage and process the spent fuel but as no final disposition path exists for any high-level nuclear waste in the U.S., it would stay at SRS. As the import could indicate a frightening trend, DOE needs to hear from the public about the proposal and larger issue of importation of foreign nuclear waste and plutonium to SRS.

You can read more about this issue in the Aiken Standard’s June 4, 2014 article: “DOE seeks input on German fuel possibly coming to SRS” (<http://www.aikenstandard.com/article/20140604/AIK0101/140609693/1004/doe-seeks-input-on-german-fuel-possibly-coming-to-srs>).