

Attachments to Scoping Comments on the US Department of Energy's "Environmental Assessment for the Acceptance and Disposition of Used Nuclear Fuel Containing U.S.-Origin Highly Enriched Uranium From the Federal Republic of Germany"

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I request that all of these documents, both in English and German, be reviewed and responded to in the draft Environmental Assessment. Many of them are referred to in my written comments. As some of them contain important or pertinent information to the matter at hand the draft EA must respond to them in full.

Documents attached:

1. "Spent fuel and radioactive directive," discussing 2011/70/EURATOM directive on responsible management of spent fuel and radioactive waste in Europe - sets the stage for the German law banning spent fuel export;
2. List from the German government of "Kernkraftwerke" (nuclear power plants) in Germany – the AVR and THTR-300 are listed;
3. List from the German government of "Forschungsreaktoren" (research reactors) in Germany – the AVR and THTR-300 are not listed;
4. Statement of Intent between Germany and DOE to examine the dumping commercial spent fuel from the German "pebble bed" reactors at the Savannah River Site, March 28/April 1, 2014;
5. Memorandum of Understanding between the U Atomic Energy Commission and Germany on cooperation with gas-cooled reactors, including providing some fuel; the document does not call the AVR reactor a "research" reactor and does not mention bulk shipment of any spent fuel to the US, August 2, 1965;
6. Document obtained by SRS Watch under the Freedom of Information Act (FOIA) that reveals that DOE officials were approached on December 6, 2011 about the dumping of the German spent fuel in the US (in the attached letter to DOE dated February 27, 2012); there is nothing in the record that indicates a move before December 2011 to bring the spent fuel to the US or rebrand the commercial power reactors as "research" reactors, if such evidence exists it must be made part of the EA record;
7. Documents obtained by SRS Watch under FOIA that indicate in May 2013 that sample gas-reactor fuel was being examined at SRS; the draft EA must discuss what happened to samples sent to SRS and the research on them;
8. SRS Watch statement against dumping of the German spent fuel at SRS, presented to a gathering in Juelich, Germany on March 8, 2014;

9. SRS Watch news release, with list of linked documents, about the German spent fuel, April 29, 2014 – see on SRS Watch website at http://www.srswatch.org/uploads/2/7/5/8/27584045/news_german_spent_fuel_april_29_2014.pdf
10. SRS Watch news release, with list of linked documents, about the German spent fuel, May 30, 2014 – see on SRS Watch website at http://www.srswatch.org/uploads/2/7/5/8/27584045/savannah_river_site_watch_news_german_waste_sr_may_30_2014.pdf
11. Joint Convention on the Safety of Spent Fuel Management and on the safety of radioactive Waste Management, International Atomic Energy Agency – both the US and Germany are parties to the agreement – The draft EA must discuss how commercial spent fuel dumping by Germany on SRS comply with the agreement.
12. Communication of February 2013 between Tom Clements and the National Nuclear Security Administration in which the German spent fuel matter was discussed; the GTRI official, Dr. Parrish Staples, refused to provide a response to questions posed. An NNSA PR person subsequently responded, saying that GTRI “is not contemplating the transportation of the AVR gas-cooled reactor research reactor fuel to the United States.” This was the first indication that an attempt was being made to rebrand the AVR experimental reactor as a research reactor in order to skirt German law banning export of commercial spent fuel for disposal. The draft EA must discuss when the post-operational rebranding – from experimental prototype reactor to research reactor began, in order to attempt to change the status of the reactor.
13. List to Congress of HEU exports, January 1993. The draft EA must discuss the status of US-origin HEU shipped to Germany up until 1993 and to the present time. The draft EA must discuss how much remains in Germany, in spent fuel, and how much has been shipped to the US.
14. Treaty on the Non-Proliferation of Nuclear Weapons, signed by both the US and Germany
15. “Transport of fuel elements of AVR experimental power reactor to the US, Dr. Rainer Moorman, February 18, 2013; The draft EA must analyze Dr. Moorman’s assessment that the AVR now contains little HEU and that the proliferation risk of that spent fuel is “very small.”
16. “Should German AVR nuclear waste be exported to the US?,” German Environmental Coalition on the Pebble Bed Reactor Waste, December 8, 2013; The draft EA must discuss points raised in this document, including the statement that the facility storing the AVR spent fuel at Juelich “lost its permit.” The draft EA must discuss if a motivating factor for the export is German unwillingness to construct a new storage facility and a perceived negative impact on research at Juelich as long as the spent fuel remains on the site.
17. “Interstorage of AVR-Fuel in the Research-Center Juelich GMBH,’ to Waste management Conference, February 24-28, 2002; The draft EA must discuss if the statement by this technical paper from a researcher at Juelich that the AVR reactor was an “experimental nuclear power

plan” is incorrect. Likewise, the draft EA must address issues raised about loading and securing the CASTOR cask as far as that information would apply to any off loading at SRS.

18. Technical paper in German on the AVR graphite fuel, by researchers from the Juelich research center (Forschungszentrum Juelich GmbH) – note that the AVR reactor is called an “experimental” reactor and that the authors say it produced 1.67 billion kWh of electricity. The draft EA must discuss electricity production by both reactors. The paper also mentions the carbon insulating ricks inside the AVR reactor. The draft EA must discuss if those bricks are planned to be exported and dumped at SRS. The draft EA must also discuss the status of any carbon bricks used in the THTR-300.
19. Technical paper in German by Dr. Rainer Moorman about the AVR spent fuel, November 2012. Questions raised in the paper, including about uranium content of the spent fuel, must be addressed in the draft EA. (As English is not the official language of the US Government, documents presented in German must have equal status to those documents in English.)
20. Article in German – “German waste may go to the USA” – June 4, 2014; The draft EA must address points raised in this article.
21. Print article of German public radio broadcast on the Juelich spent fuel to the US, June 20, 2014. The report is incorrect that the port of Savannah will be used. Comments by Dr. Ed Lyman, Union of Concerned scientists, as to the proliferation risks of reprocessing the spent fuel at SRS must be addressed in the draft EA.
22. Article in German, from the Aachener Zeitung, paper near Juelich, April 30, 2014. The draft EA must contain photos of the spent fuel elements, CASTOR storage casks, storage facilities and the AVR and THTR-300 reactor. Likewise, the draft EA must include photos and diagrams of modifications to be made to the H-Canyon at SRS to handle the CASTOR casks, equipment to off load the spent fuel and equipment to process it in H-Canyon.
23. Article in German from the Aachen newspaper, December 18, 2013.
24. Official communication from the German state of North Rhine-Westphalia, January 8, 2013, which shows that the government was discussing disposal of the fuel in the US. The draft EA must reflect at what point German officials gave up on dealing with the spent fuel in Germany and decided that a “way out” was simply to export it to the US.
25. “Quantity and Management of Spent Fuel of Prototype and Research Reactors in Germany,” September 2013. The document by German researchers indicates that the AVR and THTR-300 were “prototype” reactors. The document discusses the characteristics of the CASTOR cask and domestic disposal of them. The draft EA must discuss efforts for German disposal of the AVR and THTR-300 spent fuel and what happened to derail those efforts and shift towards the option of dumping the spent fuel in the US. The draft EA must reveal when German policy shifted from management and disposal in Germany, which appears to have been the policy until very lately, to that of attempting to export the problem.

Let the record show that no documents were found indicating that the AVR and THTR reactors were “research” reactors. A research reactor is used for such things as material research, neutron flux research, materials performance and training and such was not the case with those reactors. The draft EA must make the impossible case that they were research reactors.