



## THE LEAGUE OF WOMEN VOTERS OF SOUTH CAROLINA

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April 10, 2014

### Governor's Nuclear Advisory Council

I am JoAnne Day, co-President of the League of Women Voters of South Carolina and on behalf of the League I would like to thank the members of the Governor's Nuclear Advisory Council for hearing our statement.

The League has had concerns about the legacy wastes at the Savannah River Site (SRS) for almost four decades. We have recently updated our original 1997 research report on the status of nuclear wastes in South Carolina, and it is on our web site.

Clearly Yucca Mountain and the Waste Isolation Pilot Project (WIPP) can no longer be depended upon as a "path forward" for most, if not all of the wastes at SRS. There seems to be no movement within Congress regarding a permanent repository. We will therefore continue to be attentive to the Department of Energy (DOE) budget requests and congressional appropriations to manage the wastes already at SRS. We appreciate the care that SRS technical staff has taken to manage these challenging wastes.

We particularly appreciate staff's tackling of the transuranic wastes: identifying them, packaging them, and accomplishing shipments as the situation allowed. These wastes might well have been ignored, but staff was willing to take on a risky responsibility

The initial budget request to Congress for waste cleanup at SRS is of great concern to us.. In addition, the DOE has been reluctant to officially respond to questions regarding international imports at SRS Citizens Advisory Board meetings. It may be in the state's interest to request a Programmatic Environmental Impact Statement regarding these international shipments. If the DOE plan is to move away from the cleanup focus and move toward an international goal, the League believes the citizens of South Carolina deserve to be informed.

Thank you for the opportunity to share our concerns with you today.

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*The League of Women Voters, a nonpartisan political organization, encourages informed and active participation in government, works to increase understanding of major public policy issues, and influences public policy through education and advocacy. Membership in the League is open to men and women of all ages.*



Statement by Tom Clements, Director, Savannah River Site Watch  
South Carolina Governor's Nuclear Advisory Council  
April 10, 2014

### **Waste and Plutonium Importation to the Savannah River Site Needs "Programmatic EIS"**

Importation to the Savannah River Site of liquid high-level nuclear waste from Canada's Chalk River National Laboratories has not been adequately analyzed by the Department of Energy. Beginning in February 2013, a number of public interest groups requested that an Environmental Impact Statement be prepared to review all aspects of the proposal but such an EIS has not yet been prepared.

A Supplemental EIS - a supplement to the EIS prepared in the early-1990s on import of spent research reactor fuel - on the proposed import would analyze management and disposal of the liquid waste in Canada, including denaturing of the waste with depleted uranium nitrate so as to render the highly enriched uranium in the waste as unusable as a weapons material. The liquid waste in question is in a single tank and is of origin from 2004 and earlier. Canada has subsequently solidified this by-product waste from medical isotope production and this option must also be analyzed in a Supplemental EIS.

DOE's Global Threat Reduction Initiative in February and March 2014 secretly imported plutonium from Belgium and Italy - including some plutonium owned by Canada. That civilian plutonium has now been orphaned at SRS as it has no disposition path. As far as I can determine, no environmental review was prepared about receipt of this material. At the Nuclear Security Summit in The Hague on March 24-25, 2014, the U.S. Government announced its intention import 300 kilograms of US-origin and UK-origin plutonium that had been used for reactor research programs in Japan. That plutonium could also be orphaned at SRS. Further, DOE is also considering import of graphite spent fuel from two shuttered gas-cooled reactors (AVR and HTR) in Germany. DOE must stop skirting the requirements of NEPA. Imports such as these and the liquid waste from Canada must be covered in a Programmatic EIS.

### **MOX is a Text-Book Case in DOE Mismanagement and Massive Cost Overruns**

That the mismanaged plutonium fuel (MOX) program has run off the rails due to massive and unsustainable cost increases, technical problems and schedule delays is no surprise at all. The Governor's Nuclear Advisory Council has been aware of the red flags for many years. What is a surprise is that while problems were getting worse both DOE/NNSA and Congress turned a blind eye and let the problems multiply while continuing to throw unsustainable amounts of money at the program.

The Government Accountability Office in a February 2014 report outlined how the total lack of a baselined cost for the project has led to the situation we now face. The project never should have started without accurate costs estimates and an assurance that the AREVA reactor-grade MOX technology could be transferred to a U.S. factory making weapons-grade MOX. In spite of this, politicians still clamor for more spending on MOX without presenting life-cycle cost figures or outlining how the project would be funded over the next two decades of more.

DOE has stated that its internal assessment of the life-cycle MOX cost is an unsustainable \$30 billion. That report, which considers other non-MOX options must be promptly released. Until then, the only public cost estimate is the one I prepared in April 2013 - <http://tinyurl.com/nwmkb8c> - which has a figure of about \$22 billion going forward, which is on top of about \$5 billion already spent.

As what has happened negatively impacts South Carolina, I request that the GNAC call for accountability by public and private officials who allowed the MOX boondoggle to develop and continue to this day.





**Stopp weiterer Atommüll-Produktion! Jülich am 8. März 2014**

**No Export of Jülich Nuclear Waste to South Carolina!**

Thanks to everyone who is joined together in Jülich to show your concern about the Fukushima disaster and the threats posed by nuclear power and nuclear waste. Especially on the anniversary of the disaster it's symbolic that people around the world draw attention to Fukushima while at the same time focusing attention on local nuclear issues.

Unfortunately, German and U.S. authorities are attempting to internationalize the nuclear waste problems at Jülich by discussing the shipment of the AVR spent fuel to the U.S. Department of Energy's (DOE) Savannah River Site (SRS) in the state of South Carolina. I urge you to seek a domestic solution to the perplexing problem of the AVR fuel and not dump the problem on us in South Carolina. The message is simple: No Castor casks to the US – stop their shipment from Germany!

SRS is over 800-square kilometers in size and operated five military reactors to produce plutonium and tritium for nuclear weapons. Two reprocessing plants at the site, one of which is still operating, separated nuclear weapons material and yielded about 180 million liters of liquid high-level waste stored in 51 giant aging steel tanks built in the 1950s. That waste, under threat of leaking, is now being removed from the tanks and vitrified in large containers. Though not a perfect solution it is essential that no more nuclear waste - not from Germany or anywhere else - be dumped in the tanks at SRS.

While the US DOE will cloak the shipment in terms of nuclear non-proliferation, it is ultimately a situation where private contractors at SRS hope to make money processing the waste while Germany dumps a waste problem on another country. This is unacceptable.

Thus, we here in South Carolina do not want the AVR spent fuel to be shipped here. That material would only amplify waste problems here and absolve Germany of responsibility. Likewise, shipment of the THTR reactor spent fuel to SRS will likewise only cause us more of a nuclear headache and domestic German storage must be pursued.

Thank you for urging German authorities to continue to store the AVR and THTR spent fuel in Germany and for your efforts not to internationalize this problem. In the spirit of preventing global nuclear catastrophes like Fukushima, the authorities must listen to you and halt negotiating efforts to export a domestic nuclear waste problem to the U.S.

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February 27, 2013

To: Ms. Carol Borgstrom  
Director of NEPA Policy and Compliance  
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**Re: Need for New Environmental Impact Statement (EIS) on the Unprecedented Import from Canada to the Savannah River Site of Liquid High-Level Waste Containing Highly Enriched Uranium (HEU); Possible Programmatic EIS Needed if Shipments from Other countries are being Eyed**

The groups below hereby request that DOE prepare a Supplemental Environmental Impact Statement (SEIS) or a new EIS on the proposed import of HEU-bearing liquid radioactive waste from Canada's Chalk River Laboratories to the Department of Energy's Savannah River Site (SRS). Dr. Dave Moody, SRS site manager, confirmed at the SRS Citizens Advisory Board meeting in Augusta, Georgia on January 29 that planning for such shipment is underway.

News reports in Canada and in Augusta, Georgia have confirmed the shipment is being considered.

Given the unique nature of this shipment of liquid HEU-bearing high-level radioactive waste (HLW) and the precedent it would present, a new EIS analysis is required which would look at such things as:

- origin of the HEU-bearing waste at Chalk River (waste stream from HEU target processing to recover medical isotopes);
- applicable regulations for transporting and importing liquid radioactive waste;
- packaging of liquid radioactive waste for transport;
- proliferation implications of transport, storage and processing of HEU-bearing liquid waste;
- disposal options in Canada, including disposal of similar materials at Chalk River;
- licensing process before the Nuclear Regulatory Commission (NRC) concerning HLW shipment packages by NAC International or other companies;
- impact of accidents along transport routes, including total loss of contents of a shipping container during transport;
- risk of terrorist acts and their impact;
- storage at the Savannah River Site, including possibility of long-term storage of unprocessed liquid waste;
- accidents involving storage of containers or in handling at the Savannah River Site, including loss of the total volume of a container at SRS;
- processing of the waste in the H-Canyon and possible accidents;
- status of the H-Canyon, its condition and upgrades that may be needed;
- remediation of possible accidents in storage or processing;

- criticality risk during processing and transport;
- security requirements at SRS;
- radiation exposure along transport routes and at SRS to workers and the public;
- length of processing campaign at SRS;
- processing of recovered HEU, blending down, fabrication into fuel and shipment to nuclear reactors operated by the Tennessee Valley Authority (or other reactors);
- impact of new waste streams into the SRS tank waste system and other disposal systems;
- return of any portion of the waste to Canada, and
- total cost to DOE of the program, including payment from Canada and costs at SRS.

As this shipment could be the first of a kind that has not been analyzed before, it is of national significance and demands a thorough EIS.

Additionally, we are starting to learn more about consideration by DOE of a shipment to the US of high-level waste that may contain US-origin HEU from a German experimental power reactor. Given the unusual form of this waste material, also not analyzed in earlier NEPA documents, it appears that a Programmatic EIS (PEIS) may well be needed to analyze all possible shipment of HEU-bearing materials which have not been covered by earlier NEPA documents and which might be considered to be shipped due to waste-management considerations in the country of origin. To analyze any new shipments that are being considered one at a time rather than programmatically may constitute segmentation under NEPA.

Thank you for your consideration of and response to this request. We all request to be promptly notified about the status of any shipments and about any plans for preparation of any NEPA documents related to the shipment, processing and import of the HEU-bearing high-level waste.

Sincerely,

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