



THE LEAGUE OF WOMEN VOTERS OF SOUTH CAROLINA

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**LWVSC Comments to Blue Ribbon Commission on America's Nuclear Future
Draft Report to the Secretary of Energy, Dated 7/29/2011
Submitted to BRC on October 31, 2011**

The League of Women Voters of South Carolina (LWVSC) has been observing and educating its members and the public on nuclear issues since the 1970s, particularly activities at the Savannah River Site (SRS). In the 70s the primary concern was to develop Department of Energy (DOE) leadership in the management of nuclear wastes, especially liquid waste in leaking tanks. The most difficult defense waste, the legacy of Cold War-era weapons development, remains on-site at SRS in old tanks and requires active management to limit leaking.¹ Closure of the site may take two more decades.

Science and technology have taken a backseat to politics in the design of our nuclear waste management program. The *Nuclear Energy Insider* recently quoted the American Nuclear Energy Institute's conclusion that "the development and commercialisation of [nuclear spent fuel] recycling technologies is decades away."² Relevant Government Accountability Office (GAO)³ and National Academy of Sciences (NAS)^{4, 5} reports are even less optimistic about reprocessing because the cost of recovering fuel exceeds its value, and reprocessing does not resolve the high-level waste challenge. Nevertheless, supporters of reprocessing have "invited" commercial spent fuel to be sent to SRS. This "invitation" is linked to an unrealistically optimistic vision of commercial spent fuel reprocessing and to a quest for interesting future jobs at SRS.

Recent proposals to bring spent commercial fuel to SRS are in response to the cancellation of Yucca Mountain as a permanent storage site, but similar proposals have been promoted for years. Unfortunately, the Blue Ribbon Commission on America's Nuclear Future (BRC) has recommended that development of one or more centralized temporary storage sites be made a priority.

Most observers expect that these "Consolidated Interim Storage Facilities" (CISF) could become permanent. A CISF can be expected to be expensive, divisive, and extraordinarily difficult to implement at any location. Wasteful new temporary site development and unnecessary transportation will divert funds and attention from the important goals of the permanent geologic repository program.

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LWVSC recommends that wastes at SRS and at other federal and commercial facilities stay safely managed where the wastes are generated until there is a good final geologic repository. Near-term emphasis should be on closing and monitoring aging facilities and continuing the development of safe waste forms. Hardened On-Site Storage for commercial fuel should be designed to anticipate both long-term storage (100 years+ if possible) and also transportation to the final geologic repository.

1. LWVSC comments on BRC proposals for a new organization to implement the waste management program, with access to utility waste disposal fees, and amendment of the Standard Contract

The LWVSC supports the notion of independence of the agency to implement the nuclear waste management program. However, the suggestion of a “Governmental Corporation” does not ensure independence from political meddling. We reiterate: Science and technology have taken a backseat to politics in the design of our nuclear waste management program. Programmatic failures thus far include the initial selection of Yucca Mountain for political rather than technical reasons, the cancellation of the legislatively mandated search for a second site, and the suggestion to double the capacity of Yucca Mountain. Each of these was a Congressional action taken in spite of Nevada’s strong opposition to hosting Yucca Mountain and concern for, among other issues, seismic activity⁶ and water protection.

The structure, function, and governance of any entity tasked with commercial nuclear waste management, whether inside or outside of DOE, must be carefully designed to have enough independence to place technical and scientific considerations ahead of political and budgetary concerns of the moment. At the same time, there must be mechanisms to solicit and consider the input of states and communities impacted by the agency’s decisions, as BRC proposed. The structure, funding, and governance of such a new entity should be the subject of a major conference with independent facilitation, and participation of all concerned parties. Finally, there must be formal oversight of the agency to ensure sound financial management and timely progress toward its goals. The GAO and/or the NAS would be likely candidates for such oversight.

Congress must amend the Waste Fund and fully fund it. In addition to amendment of the Waste Fund, Congress must also amend the Standard Contract to minimize wasteful litigation that has been beyond the control of DOE and has imposed financial penalties on taxpayers. This costly litigation has resulted because of conceptual weakness in the initial legislation, particularly an optimistic timeline for development of a geologic repository.

2. LWVSC comments on proposal to develop one or more Consolidated Interim Storage Facilities

The LWVSC is very concerned about this proposal. Supporters of reprocessing have “invited” commercial spent fuel to SRS even though it is a defense facility. Strong opposition to CISF storage from other areas of South Carolina can be expected, as in other states, because of the perceived likelihood that CISF would become permanent. Opposition is very likely to detract from efforts to establish a permanent repository, as described on the first page of this submission.

Wastes at SRS and at other defense and commercial facilities will require important investments for safe storage in the coming decades. Since funds will be limited, near-term emphasis should be on closing and monitoring aging facilities and continuing the development of safe waste forms.

The nation’s communities and industries with concerns about nuclear waste must remain attentive and vigilant. Widespread continuing attention should improve the success of this important final repository program.

3. LWVSC comments on U.S. leadership in international efforts to address safety, non-proliferation and security concerns

The Executive Order of the Commission is in part to “include an evaluation of . . . technologies that would optimize . . . the minimization of materials derived from nuclear activities in a manner consistent with U.S. nonproliferation goals.”

Potential proliferation materials have been, and are proposed to continue to be, separated for various failed experiments, including fast flux reactors, breeder reactors, and the troubled mixed oxide fuel concept of concern in South Carolina. Not one of these concepts is imminent. Nevertheless, reprocessing, which always presents an opportunity for proliferation by nations⁷, finds proponents. LWVSC is hopeful that the final BRC report will attempt to describe the likelihood of the legitimate use of plutonium as fuel in the next few decades, which is the basis of open-ended waste separation policies at SRS and elsewhere, and that the final report will make careful reconsideration of US policies.

OTHER REMARKS:

LWVSC appreciates the research, study, and recommendations of the BRC, as well as the members’ commitment to grappling thoughtfully with these complicated technical and policy issues. South Carolina appreciates the opportunity to review and participate in the BRC studies, and particularly appreciates the transparency and outreach efforts of the BRC and its staff.

- (A) Please be assured that the “invitation” of commercial spent fuel to the SRS is proposed by advocates of commercial reprocessing jobs.
- (B) DOE is to be commended for establishing the country’s ONLY permanent repository for nuclear wastes – the Waste Isolation Pilot Plant (WIPP) in New Mexico. However, the range of technical and logistical issues that will be associated with a commercial-scale high-level waste repository far exceeds those of WIPP, which cannot be considered a model as suggested in the BRC report.
- (C) LWVSC participated this summer in a regional meeting which addressed regulatory gaps in reprocessing. Industry promoters of commercial reprocessing seemed to anticipate Waste Fund or taxpayer financing of reprocessing. The current experiments with Mixed Oxide Fuel at SRS appear to be part of a similar open-ended, long-range goal of commercial reprocessing. LWVSC suggests that BRC review relevant GAO³ and NAS^{4, 5} reports on reprocessing, and looks forward to a BRC recommendation to put federal funding of reprocessing on hold for the foreseeable future in light of other program needs and independent assessments.
- (D) Provision of community technical and financial support and the respectful consent-based siting approach proposed by the BRC are essential to informed community participation in the siting and development of a CISF or repository, and LWVSC appreciate BRC’s specific recognition of these two important issues.
- (E) LWVSC supports the BRC recommendation regarding NAS assessment of lessons learned from Fukushima, and suggests also that NAS report to BRC on the advantages and disadvantages of options such as “Hardened On-Site Storage.”
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1 Subramanian, Karthik. *In-Service Inspection Program for the SRS Waste Tanks: Update (SRR-STI-2009-00532)*. Savannah River Remediation, 2009. http://www.srs.gov/general/outreach/srs-cab/library/meetings/2009/fb/fb_20090928_0929_in_service_inspection.pdf

2 Rajgor, Gail. “Who will win the nuclear waste race?” *Nuclear Energy Insider*, 26 October 2011. <http://analysis.nuclearenergyinsider.com/industry-insight/who-will-win-nuclear-waste-race>

3 Government Accountability Office. *Nuclear Waste Management: Key Attributes, Challenges, and Costs for the Yucca Mountain Repository and Two Potential Alternatives (GAO-10-48)*. Washington DC: Government Accountability Office, 2009, pp. 22-44. <http://www.gao.gov/new.items/d1048.pdf>

4 Garrick, B. John. *The Current Status, Safety, and Transportation of Spent Nuclear Fuel*. Washington DC: National Academy of Engineering of the National Academies, 2003, footnote 1. <http://www.nae.edu/Publications/Bridge/RadioactiveWasteDisposal/TheCurrentStatusSafetyandTransportationofSpentNuclearFuel.aspx>

5 National Research Council Committee on Review of DOE’s Nuclear Energy Research and Development Program. “DOE’s nuclear fuel reprocessing R&D program should be scaled back; boosted efforts to get new nuclear power plants online needed.” *News from the National Academies*. Washington DC: The National Academies, 2007. <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=11998>

6 US Geological Survey. “Latest Earthquakes in the USA – Last 7 Days. USGS Earthquake Hazards Program. <http://earthquake.usgs.gov/earthquakes/recenteqs/>

7 Bari, R., et al. *Proliferation Risk Reduction Study of Alternative Spent Fuel Processing (BNL-90264-2009-C)*. Upton NY: Brookhaven National Laboratory, 2009, abstract pp. 6-7.
<http://www.bnl.gov/isd/documents/70289.pdf>

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