

July 7, 2011

Secretary Annette L. Vietti-Cook  
U.S. Nuclear Regulatory Commission  
Attn: Rulemakings and Adjudications Staff  
Washington, DC 20555-0001  
*Submitted via email:* Rulemaking.Comments@nrc.gov

RE: Southern Alliance for Clean Energy comments regarding Docket ID NRC–2010–0267, “Draft Regulatory Basis for a Potential Rulemaking on Spent Nuclear Fuel Reprocessing Facilities”

To Whom It May Concern:

Southern Alliance for Clean Energy is a regional non-profit conservation and energy consumer organization with members throughout the Southeast. We have focused on energy policy, including nuclear power concerns, since 1985.

Southern Alliance for Clean Energy is very concerned about the push by the nuclear industry to advance reprocessing that has resulted in a subsequent unnecessary, unneeded rulemaking endeavor being undertaken by the U.S. Nuclear Regulatory Commission (NRC) regarding this issue.

We strongly oppose the reprocessing of nuclear fuel and production of plutonium bomb fuel, or mixed oxide fuel/MOX, due in part to the resultant increase in the volumes of hazardous, radioactive waste that already plague our country. In fact, the Department of Energy (DOE) estimates that reprocessing generates much larger waste streams than commercial reactors using conventional nuclear reactor fuel, with 3 to 11 times more low-level radioactive waste and a staggering 163 times more “Greater than Class C Waste” created.<sup>1</sup> Additionally, reprocessing does not eliminate highly radioactive, long-term fission products such as iodine-129 and cesium-135, which have half-lives of millions of years.<sup>2</sup> This polluting and costly technology is a far cry from what the public actually considers “recycling” and though proponents use the term to mislead the public and policy makers, regulators such as the NRC must reject those efforts.

Nuclear reprocessing is yet another nuclear threat targeting the Southeast, a seemingly preferred dumping ground for radioactive waste and experimental laboratory for the nuclear industry. As the likely site for future reprocessing, the DOE’s sprawling nuclear weapons complex, the Savannah River Site (SRS), in South Carolina along the Savannah River already has severe nuclear waste problems and reprocessing will only make this worse. SRS currently has the second largest volume of high-level liquid nuclear waste and the most amount of radioactivity at any DOE site in the nation. If reprocessing and/or

1.866.522.SACE  
www.cleanenergy.org

P.O. Box 1842  
Knoxville, TN 37901  
865.637.6055

34 Wall Street, Suite 607  
Asheville, NC 28801  
828.254.6776

250 Arizona Avenue, NE  
Atlanta, GA 30307  
404.373.5832

P.O. Box 8282  
Savannah, GA 31412  
912.201.0354

P.O. Box 1833  
Pittsboro, NC 27312  
919.360.2492

P.O. Box 50451  
Jacksonville FL 32240  
904.710.5538

<sup>1</sup> DOE/EIS-0396 GNEP Draft Table 4.8-6 (p. 4-139).

<sup>2</sup> Makhijani, Arjun. “The Mythology and Messy Reality of Nuclear Fuel Reprocessing.” April 2010, p. 20. Available at: <http://www.ieer.org/reports/reprocessing2010.pdf>

the associated proposal to build an “Energy Park” move forward at SRS, the NRC and DOE must first study how this entire region will be burdened even further by reprocessing, building advanced reactors, etc. as outlined in the current “Energy Park” proposal.

Despite proponents’ claims that reprocessing benefits nuclear non-proliferation efforts, reprocessing nuclear fuel actually creates new proliferation risks by creating new streams of plutonium that must be secured. Brookhaven National Laboratories concluded that all of the reprocessing technologies available have about the same proliferation risk because of the “ease [with which] various plutonium-bearing materials or the reprocessing process itself could be converted to produce separated plutonium.”<sup>3</sup> Immobilization or vitrification (crystalline-solidification) are likely safer, more affordable methods to more effectively address nuclear proliferation concerns.

Reprocessing and development and use of plutonium fuel are much more costly than conventionally fueled reactors, with fuel cycle cost increases estimated as high as 300%.<sup>4</sup> As usual, these costs will fall on U.S. taxpayers and utility ratepayers, such as TVA’s that may participate in the troubled plutonium fuel scheme. Instead, we believe funds should be used for necessary clean up at sites such as SRS that are highly contaminated due in large part to previous reprocessing efforts. Additionally, though outside of the NRC’s purview, we believe more attention should be paid to energy choices that do not pose the risks associated with reprocessing and plutonium fuel development such as energy efficiency and conservation and renewables, such as wind, solar, and bioenergy.

Before rulemaking is even considered, the overall consequences of reprocessing and all aspects of this activity as it relates to the entire nuclear fuel cycle must be analyzed. The NRC should conduct a full-scale analysis under the National Environmental Policy Act - a Programmatic Environmental Impact Statement - from “cradle to grave” before embarking on a rulemaking. Financial impacts to ratepayers and taxpayers; effects on waste management, the environment and public health; and implications for international non-proliferation efforts should be part of the analysis and open for public debate.

In closing, we oppose the development of regulations for costly, polluting reprocessing facilities. Despite industry pressure, the Commission should not proceed to rulemaking for regulations that are not needed and for which no urgency, except for those standing to profit, has been established.

Sincerely,

Sara Barczak  
Program Director, High Risk Energy  
Knoxville, TN

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<sup>3</sup> “Proliferation Risk Reduction Study of Alternative Spent Fuel Processing,” Brookhaven National Laboratory, July 2009. Available at: <http://www.bnl.gov/isd/documents/70289.pdf>

<sup>4</sup> Lester, RK. “The Economics of Reprocessing in the United States,” Congressional testimony, July 12, 2005.