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PUBLIC COMMENTS REGARDING THE DEPARTMENT OF ENERGY'S SURPLUS PLUTONIUM DISPOSITION SUPPLEMENTAL EIS: SCOPING MEETING, CHATTANOOGA, TN -- AUGUST 5, 2010

My name is Josh Galperin and I am a policy analyst and attorney with the Southern Alliance for Clean Energy in Knoxville. We are a regional non-profit conservation and energy-consumer organization with members throughout Tennessee and the Southeast. We have focused on energy policy, including nuclear concerns, since 1985.

The Southern Alliance for Clean Energy is enthusiastic about reducing the risks of nuclear proliferation and is supportive of some options available for achieving this laudable goal. Immobilization or vitrification (crystalline solidification) are better-tested and safer methods to address nuclear proliferation concerns. These approaches also happen to cost half of what is estimated for producing plutonium bomb fuel for use in commercial nuclear reactors.[1]

However, as the Department of Energy (DOE) continues to unfortunately focus on commercial use of plutonium bomb fuel, I will direct the remainder of these comments to that option, and the particular concerns raised by using residents of the Tennessee River Valley as guinea pigs in this risky and expensive experiment.

Most of you are aware that Duke Energy was slated to test plutonium bomb fuel in their reactors, but for a number of reasons they withdrew from the program. The paramount reason appeared to be that the tests being run in Duke's reactors were failing.[2] The test runs showed that the use of plutonium in its reactors were causing both risky damage to their facility and the plutonium bomb fuel itself – the fuel apparently grew in size.[3] Duke was also concerned about the reliability of this fuel for commercial power generation as the completion and consistent operation of the Mixed Fuel Fabrication Facility at the Savannah River Site, something that has yet to occur, is a necessary precursor to the availability of completed plutonium bomb fuel assemblies.[4]

And inexplicably, with all these serious problems, the Tennessee Valley Authority (TVA) has now volunteered to possibly test the commercial applicability of plutonium bomb fuel in their

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[1] "Immobilization v. Pu/MOX Fuel" Blue Ridge Environmental Defense League, available at *www.bredl.org/pdf/immobilization_vs._PuMOX.pdf*

[2] "Duke Energy Abandons Plutonium Fuel (MOX) Testing Program in South Carolina Reactor," Press Release, Friends of the Earth, Nov. 12, 2009, available at http://www.foe.org/duke-energy-abandons-plutonium-fuel-mox-testing-program-south-carolina-reactor

[3] Catawba, Unit 1 - Core Operating Limits Report, Cycle 18, Revision 2, Docket # 50-413, June 10, 2008, available at http://adamswebsearch.nrc.gov/idmws/ViewDocByAccession.asp?AccessionNumber=ML081650181 and "Nuclear Fuel Test Failure Should Trigger Suspension of Weapon-Grade Plutonium Fuel Use," Press Release, Union of Concerned Scientists, August 4, 2008, available at http://www.ucsusa.org/news/press_release/nuclear-fuel-test-failure-0140.html

[4] "Weapons Plutonium: A Tough Sell As Reactor Fuel," New York Time, March 17, 2009, available at http://green.blogs.nytimes.com/2009/03/17/weapons-plutonium-a-tough-sell-as-reactor-fuel/

reactors even though this program wasn't good enough for Duke Energy. It shouldn't be good enough either for TVA.

Obviously, this possibility raises a number of significant questions that the Supplemental EIS must address:

- Why, exactly, did Duke pull out of this experiment?
- What were the consequences of Duke's tests?
- How will these problems be addressed in TVA's reactors?
- Does plutonium bomb fuel create a greater risk of damage to reactors?
- Will the additional risks associated with plutonium bomb fuel increase the burden on TVA's ratepayers?
- What is the potential for a decrease in reactor availability due to running of these tests and what are the long-term implications for reliability and outage time?
- How will the demonstrated fuel rod growth impact TVA reactors and the safety of Valley residents?
- How will DOE and TVA address the increased thermal loading resulting from plutonium bomb fuel use?
- With respect to Brown's Ferry, has DOE considered the cumulative effect of upstream sources of thermal loading such as Watts Bar and Bellefonte? [5]
- How will inclusion of bomb fuel in TVA's nuclear program affect their entire energy portfolio and their efforts to promote renewable energy sources and efficiency?

The acceptance of TVA as a test subject puts ratepayers and possibly taxpayers at risk. TVA is already overinvested in nuclear power.[6] But with TVA, unlike Duke or others, the options for increasing capital to fund projects such as this rests on ratepayers, not private investors. Any expensive failures will fall on ratepayers and perhaps even on taxpayers. Thus, shifting more funds and attention from renewables, efficiency or land stewardship to riskier nuclear options is not only a major environmental threat, it is a financial threat that DOE must explore.

For all these reasons, Southern Alliance for Clean Energy believes this controversial program threatens national security and public health and the environment. Support of the plutonium fuel program could lead to the development of a plutonium economy that would threaten nuclear non-proliferation goals and would increase already excessive volumes of deadly, highly radioactive nuclear waste at in the Valley.

These are inherent problems in the use of plutonium bomb fuel, but again, we must ask ourselves and DOE must ask itself and TVA: if this risky proposal is not good enough for Duke Power, then why is it good enough for the TVA?

Thank you.

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[5] Decatur Daily, *Browns Ferry Cuts Production by 50%*, July 26, 2010. See http://www.decaturdaily.com/detail/65259.html?content_source=&category_id=&search_filter=&event_mode=&event_ts_from=&list_type=&order_by=&order_sort=&content_class=&sub_type=stories&town_id=

[6] As of September 30, 2009 completed nuclear plant costs accounted for 50% of all of TVA's generating plant costs. Decommissioning costs for the existing reactors are estimated to reach $1.8 Billion and the values of the Nuclear Decommissioning trust is less than this estimated cost. See Tennessee Valley Authority Form 10-K Annual Report to US Securities and Exchange Commission, pages 94 & 131.