



Department of Energy  
National Nuclear Security Administration  
Washington, DC 20585



July 18, 2012

Ms. Karen Patterson  
Chair  
South Carolina Governor's Nuclear Advisory Council  
1200 Senate Street, 408 Wade Hampton Building  
Columbia, SC 29201

Dear Ms. Patterson:

Enclosed is the U.S. Department of Energy's (DOE) *Draft Surplus Plutonium Disposition Supplemental Environmental Impact Statement (SPD Supplemental EIS)*, DOE/EIS-0283-S2. This document has been prepared in accordance with the National Environmental Policy Act (NEPA) and its implementing regulations. The Tennessee Valley Authority (TVA) is a cooperating agency in the preparation and review of sections of this *SPD Supplemental EIS* that address operation of TVA nuclear power reactors using mixed oxide (MOX) fuel assemblies.

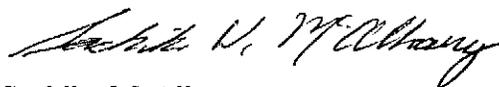
In this *SPD Supplemental EIS*, DOE evaluates the No Action Alternative and four action alternatives for disposition of 13.1 metric tons (14.4 tons) of surplus plutonium. The four action alternatives are: (1) glass can-in-canister immobilization of the surplus plutonium and subsequent filling of the canister with high-level radioactive waste (HLW) at Defense Waste Processing Facility (DWPF) at the Savannah River Site (SRS); (2) the fabrication of some surplus plutonium into MOX fuel at the Mixed Oxide Fuel Fabrication Facility (MFFF) at SRS, for use in domestic commercial nuclear power reactors to generate electricity, and disposition of the surplus plutonium that is not suitable for MFFF as transuranic waste at the existing Waste Isolation Pilot Plant (WIPP), a deep geologic repository in southeastern New Mexico; (3) processing some surplus plutonium in the existing H-Canyon/HB-Line at SRS with subsequent disposal as HLW (i.e., vitrification in the existing DWPF), and fabrication of remaining plutonium into MOX fuel at MFFF; and (4) processing some surplus plutonium in the existing H-Canyon/HB-Line for disposal as transuranic waste at WIPP, and fabrication of the remaining plutonium into MOX fuel at MFFF. Within each action alternative, DOE also evaluates options for pit disassembly and conversion to, among other things, disassemble nuclear weapons pits and convert the plutonium metal to an oxide form for disposition. Under three of the options, DOE would not build a stand-alone Pit Disassembly and Conversion Facility at SRS, which DOE had previously decided to construct (65 FR 1608). DOE is not revisiting the decision to fabricate 34 metric tons (MT) (37.5 tons) of surplus plutonium into MOX fuel and to irradiate the MOX fuel in commercial nuclear reactors used to generate electricity.

DOE's Preferred Alternative is to fabricate surplus plutonium into MOX fuel in MFFF for use in domestic commercial nuclear power reactors and disposition of the surplus plutonium that is not suitable for MFFF as transuranic waste at WIPP. DOE's preferred option for pit disassembly and the conversion of surplus plutonium metal is to use some combination of facilities at Technical Area 55 at Los Alamos National Laboratory and K-Area, H-Canyon/HB-Line, and MFFF at SRS, rather than to construct a new stand-alone facility. This would likely require the installation of additional equipment and other modifications to some of these facilities. The TVA does not have a preferred alternative at this time regarding whether to pursue irradiation of MOX fuel in TVA reactors and which reactors might be used for this purpose.

Comments on this *Draft SPD Supplemental EIS* should be submitted within 60 days of the publication of the U.S. Environmental Protection Agency's Notice of Availability in the *Federal Register* to ensure consideration in preparation of the *Final SPD Supplemental EIS*. DOE will consider comments received after the 60-day comment period to the extent practicable. Written comments may be submitted via postal mail to Sachiko McAlhany, *SPD Supplemental EIS*, U.S. Department of Energy, P.O. Box 2324, Germantown, Maryland 20874-2324; via email to [spdsupplementaleis@saic.com](mailto:spdsupplementaleis@saic.com); or by toll-free fax to 1-877-865-0277. Public hearings on this *Draft SPD Supplemental EIS* will be held during the comment period. The dates, times, and locations of these hearings will be published in a DOE *Federal Register* notice and will also be announced by other means, including the project website, newspaper advertisements, and notification to persons on the mailing list. Information on this *SPD Supplemental EIS* can be found on the project website at <http://nnsa.energy.gov/nepa/spdsupplementaleis>.

The *Draft SPD Supplemental EIS* and related information is available on the *SPD Supplemental EIS* website at <http://nnsa.energy.gov/nepa/spdsupplementaleis>. This document is also available on the DOE NEPA website at <http://energy.gov/nepa/nepa-documents> and the Savannah River Operations Office website at <http://www.srs.gov/general/pubs/envbul/nepa1.htm>.

Sincerely,



Sachiko McAlhany  
NEPA Document Manager

Enclosure: *Draft SPD Supplemental EIS*