

STATE OF SOUTH CAROLINA  
*Governor's Nuclear Advisory Council*

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Ms. Sachiko McAlhany  
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July 19, 2010 Federal Register Notice – SPD SEIS for Additional Plutonium and Alternatives

Dear Ms. McAlhany:

The South Carolina Governor's Nuclear Advisory Council appreciates this opportunity to comment on DOE's plan to modify the scope of the Surplus Plutonium Disposition (SPD) Supplemental Environmental Impact Statement (SEIS). The SEIS would address 7 tons of pit plutonium and 6 tons of non-pit plutonium for disposition, evaluate a new alternative of disposition utilizing a Savannah River Site (SRS) K-Area project in lieu of a comprehensive Pit Disassembly and Conversion Facility (PDCF), evaluate a new alternative of disposal in the New Mexico Waste Isolation Pilot Project (WIPP), and evaluate Mixed Oxide Fuel (MOX) disposition in five Tennessee Valley Authority reactors.

Our overarching concern is that no alternative for the disposition of the subject plutonium should be selected if it has the potential to disrupt other critical path activities related to the completion of the legacy waste management clean-up at the SRS. In other words, whatever alternative or combination of alternatives the DOE may select for the additional 13 tons of surplus plutonium, the DOE should determine, with unequivocal assurance, that the alternative(s) decidedly will not delay or forestall the processing and disposition of liquid radioactive waste currently stored at the SRS.

Over the years we have observed that, more often than not, DOE's clean-up activities are unable to meet overly optimistic planning schedules. We understand that DOE is aware of this and has established more formal and thorough risk assessments during the planning process, and more rigorous project management during the implementation of project activities. However, it remains to be seen if these measures can bring actual schedules in line with planning schedules.

With this paramount concern in mind we remind DOE that two of the alternatives being evaluated must meet very aggressive schedules and packaging requirements in order to

ensure they do not impede the completion of the vitrification of liquid radioactive waste now stored in the H- and F-Tank Farms at SRS. The feasibility of a third alternative requires that New Mexico be willing to accept plutonium at the Waste Isolation Pilot Plant (WIPP).

Therefore, the SEIS must include sufficient information for the public to observe that DOE has chosen only an alternative or alternatives for the SPD with high assurance of success and without material potential to adversely impact on-going SRS programs and projects.

- For dissolution in H-Canyon and vitrification with the high level waste glass from the Defense Waste Processing Facility (DWPF), DOE must assure that the current limit of 897 g/m<sup>3</sup> of plutonium per DWPF canister will be increased. This limit was established a number of years ago, and was based simply on the gross amount of plutonium in the SRS high level waste tanks at that time. The limit has no safety basis. If DOE does not make this assurance because, for example, changing the concentration must await resolution of Yucca Mountain adjudications, DOE should not pursue this alternative for any amount of the surplus plutonium that would extend planned DWPF operations.
- For the glass can-in-canister alternative, DOE must realistically assess the ability to design, construct, test and bring on-line a plutonium vitrification facility in K-Area quickly enough to meet DWPF's canister production schedule. From an historical perspective, it is noteworthy that the glass can-in-canister alternative (or a functional equivalent) was evaluated, and dismissed, in the first EIS related to SPD more than 11 years ago. The logic of reevaluating an alternative previously dismissed should be explained in the SEIS.
- For the disposal in WIPP alternative DOE must realistically assess and clearly present the process by which the plutonium could be rendered capable of meeting the WIPP waste acceptance criteria. More importantly, given that New Mexico resisted disposing of transuranic waste within its borders for many years, DOE must include no less than a Memorandum of Understanding between DOE and the State of New Mexico to convince South Carolina that New Mexico will accept the plutonium.
- All these alternatives require a plutonium processing facility be installed in K-Area, and relatively soon. DOE must demonstrate to a skeptical public that it can secure the funding, get design approvals, construct, test, and bring this facility on line without affecting existing legacy waste disposition activities.

The National Defense Authorization Act of 2002<sup>1</sup> (NDAA) required DOE to have a plutonium disposition plan prior to consolidating plutonium from several DOE sites at SRS. Since that time DOE has created and abandoned and re-created several plans for plutonium disposition. The SEIS, which will be the fourth in the series of SPD NEPA analyses, revisits alternatives evaluated in earlier documents and presents new alternatives. South Carolina has been patient as DOE has struggled to establish its SPD plans. DOE needs to conduct proper and sufficient planning to ensure that the alternative(s) selected via this current analysis will actually be executed. The time for

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<sup>1</sup> Section 3155 of Public Law 107-107, entitled "Disposition of Surplus Defense Plutonium at Savannah River Site, Aiken, South Carolina", of the National Defense Authorization Act for Fiscal Year 2002.

conceptual planning is well past; the time for diligent implementation and execution of selected alternatives is overdue.

Finally, DOE should take steps to re-engage South Carolina in consultation with respect to plutonium shipments, if any, anticipated for the state, consistent with Public Law 107-107, in a more timely manner.

We thank you for this opportunity to comment on the scope of the SPD SEIS, and look forward to the day when planning gives way to execution.

Sincerely,

A handwritten signature in cursive script that reads "Ben C Rusche".

Ben Rusche, Chair  
South Carolina Governor's Nuclear Advisory Council

Cc: Gov. Mark Sanford  
Members of the Council  
Dr. Inez Triay, Assistant Secretary, DOE Environmental Management  
Mr. Tom D'Agostino, Administrator, DOE National Nuclear Security Administration  
Mr. Jack Craig, Acting Manager, Savannah River Site  
Mr. Doug Dearolph, Manager, National Nuclear Security Administration, Savannah River Site.