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Rev. Vonell Carter
Convener

CITIZENS FOR ENVIRONMENTAL JUSTICE

Dr. Mildred McClain
Executive Director

May 7, 1996

Mr. J. David Nulton,
Director
Office of NEPA Compliance and Outreach
Office of Fissile Materials Disposition
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Mr. Nulton;

On the Storage and Disposition of Weapons-Usable Fissile Materials Draft Programmatic Environmental Impact Statement, the following comments have been drafted for consideration before the Record of Decision is announced. May I begin with the following observation of the Department of Energy's plan for SRS?

Please note that the Department's "Reasonably Foreseeable Future Progress at SRS," includes the following proposed activities:

1) Storage and Disposition of Plutonium and Highly Enriched Uranium

2) Foreign Research Reactor Spent Nuclear Fuel

3) Highly Enriched Uranium Disposition

4) Interim Management of Nuclear Materials

5) Stockpile Stewardship and Management

6) Tritium Supply and Recycling

7) Waste Management

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The cumulative impact of the seven proposed activities would have a devastating effect on the populations and environmental status of the states of South Carolina and Georgia. For example, there would be a 6% increase in water usage over the no-action alternative. Collocation would account for approximately 11% of the total annual waste water discharge, along with increased impacts to wetlands and aquatic resources from discharges from proposed facilities. In addition, "minority" and low income communities would be adversely and disproportionately affected in the event of a radiological accidental/intentional/terroristical release. 1/09.00.06 2/09.12.06

Consider that neither of the options of choice in the PEIS for the Storage and Disposition of Weapons-Usable Fissile Materials can eliminate the environmental, safety and health risks, nor the dangers of proliferation. These available options can only reduce the risks, therefore, this paper cites vitrification as the disposition alternative of choice. However, this disposition alternative does not come without severe challenges, particularly in the area of environmental justice.

Data on geographic distribution of low income and minority populations and prevailing wind conditions are used to assess whether toxic/hazardous pollutants and radiological releases from the proposed actions would be emitted disproportionately in the direction of these populations. If SRS is the site of choice for the storage and disposition of Pu there "could be potential environmental justice impacts due to the large low income and minority population residing in two counties adjacent to the SRS" (PEIS). These counties have minority populations of greater that 50 percent and several other counties surrounding the site have populations of greater than 25 percent. Hence, low income and minority populations would be disproportionately affected by an accidental release. Because of this very significant factor, even though vitrification is the method of disposition cited here, please be advised that SRS is not the site of choice. 2/09.12.06 cont. 3/08.03.01

It is further recommended that:

pilot plants be constructed to test various vitrification technologies that are specific to the different forms of Pu recommended for vitrification; 4/15.00.00

vitrification must also be proven to be technologically safe; apart from criticality accidents, other types of accidents, such as spills of radioactive materials might occur during the vitrification process; 5/09.09.06

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09 00 06 Comment Number 1

Section 4.7 of the PEIS analyzes the cumulative impacts for all of the Proposed Alternatives. Future site-specific NEPA analyses would provide a more detailed analysis, including further study of wetlands and aquatic resources.

09 12 06 Comment Number 2

The PEIS assessed potential health impacts from the accidental release of radiation for all of the Proposed Alternatives. The Environmental Justice section further evaluated whether such impacts would be disproportionately borne by low-income and minority communities. As discussed in Section 4.5 of the Draft PEIS, data on the distribution of the low income and minority populations and historical information on the prevailing wind conditions indicate that these minority and low-income populations would not likely be disproportionately affected in the event of an accidental release. The PEIS, however, does note that under certain conditions, low-income and minority populations could be disproportionately affected by such an accidental release.

08 03 01 Comment Number 3

The Department of Energy acknowledges the commentor's opposition to new missions at SRS. Decisions on the storage and disposition of weapons-usable fissile materials will be based upon environmental analyses, technical and economic studies, national policy considerations, and public input.

15 00 00 Comment Number 4

Comment noted. DOE is currently testing the can-in-canister technology for vitrification. Should DOE choose new vitrification technologies for implementation, a pilot plant would be needed for the demonstration, and NEPA documentation would be prepared, as appropriate.

Pu vitrification options should be studied as an EIS under NEPA so that a sound decision regarding the choices of technology can be made; 4/15.00.00 cont.

Disadvantage of adding Pu vitrification to DWPF at SRS is the delay in the vitrification of the 34 millions gallons of High Level Waste that are already scheduled for the facility. Far greater potential for environmental contamination exists from the storage this nonvitrified waste. The consequences of such accidents with liquid wastes would also be far more severe than those of accidents that might occur from storage of vitrified high level radioactive wastes. 6/11.00.06

It is hereby recommended that Pu is treated as a waste product rather than as a resource. The disposition of Pu as a waste product would be fairly low in cost (if it is integrated with the current vitrification program at SRS) and it would be rendered highly. proliferation-resistant. However, if SRS is the site of choice for this procedure, then extensive environmental awareness and education must be offered to the surrounding communities, especially those that would be exposed in the event of an accident. These communities must also be made aware of any and all emergency procedures and evacuation routes. Considering the extent that such an accident could have on a population, relocation of these residents is an even more viable option to insure their health and safety. 7/01.04.00 8/09.09.06

The PEIS also states that radiation exposure is more likely to produce somatic effects than genetic effects as exposure risks to these same individuals who live in the 50 mile radius of the site. They are therefore, at risks from exposure from past and present releases and from any accidental release should Pu be stored and disposed of at SRS.

It is further recommended that the following be given full consideration:

Putting Pu in non weapons-usable form as soon as possible, compatible with protection of environment, workers and community health;

Options must in compliance with all environmental,

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09 09 06 Comment Number 5

To protect public and workers' health and safety, Pu disposition facilities will be designed to comply with current Federal, State, and local laws; DOE Orders; and industrial codes and standards. This will provide a plant that is highly resistant to the effects of natural phenomena and internal events such as fire and explosion. Furthermore, the PEIS analyzed the probabilities and human health consequences of the potential accidents for proposed Pu disposition alternatives including the Vitrification Alternative.

11 00 06 Comment Number 6

Comment noted. Should DOE decide to conduct Pu vitrification at SRS, any schedule conflict would be resolved prior to implementation.

01 04 00 Comment Number 7

The determination of whether or not Pu should be considered a waste, is beyond the scope of the PEIS. Furthermore, whether or not Pu is a waste, will not change the range of disposition alternatives addressed in the PEIS. NEPA requires that the environmental impacts for all reasonable alternatives be considered for the Proposed Action. While immobilization is clearly a reasonable alternative, so are reactor burning and boreholes. The non-proliferation risks of each alternative will be carefully considered and factored into the ROD for disposition. Cost, schedule, and technical analyses have been conducted by DOE and will also be factored into the ROD.

09 09 06 Comment Number 8

To respond to potential accidents, DOE Orders specify the requirements for emergency preparedness at DOE facilities. Each DOE site has established an Emergency Management Program that incorporates activities associated with emergency planning, preparedness, and response. The emergency plans at each site would be revised to incorporate future DOE requirements and expanded to incorporate the addition of new facilities.

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health, and safety laws and regulations. It must be taken into account the reality that increased handling, processing, and transporting of Pu entails additional new environmental risks; and, that some of these new risks may offset existing risks from present methods of storage; 9/09.00.08

Technology for re-extracting Pu from glass is known; thus, there is no need to continue operating reprocessing plants to produce more Pu that is uneconomical today and will remain so for decades;

Volumes of wastes are increased greatly in reprocessing and is the most dangerous portion of waste in the short-and medium- term which consists of highly radioactive fission products and is in a liquid form which must be stored in tanks; 10/15.00.00

Environmental costs and health risks of reprocessing creates streams of radioactive materials like:

the atmospheric release of C-14 in the form of C-14 dioxide and krypton-85; and,

large volumes of liquid wastes contaminated with radionuclides that are released into the environment.

In conclusion, let us strengthen US and international fissile materials control efforts and do it with in the least costly methods that also subject us to the fewest health, and environmental health and safety risks.

Respectfully submitted:

A Citizen for Environmental Justice,

Debra K. Abdallah

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09 00 08 **Comment Number 9**

Comment noted. Analyses in the PEIS consider the potential environmental impacts of the handling, processing, and transportation of the surplus weapons-usable materials.

15 00 00 **Comment Number 10**

Comment noted.