



Fred E. Humes
Director

Statement for the Record
Supplement to the Surplus Plutonium Disposition
Draft Environmental Impact Statement
June 15, 1999

It is my pleasure to speak in support of the Department of Energy's important program to dispose of weapons grade plutonium which is excess to our nations defense needs. My name is Ernie Chaput, and I am with the Economic Development Partnership of Aiken, South Carolina.

As many of you know, the Department's Savannah River Site is located in Aiken County, South Carolina. For the past several years the Economic Development Partnership has evaluated DOE programs proposed for accomplishment at the SRS for consistency with local capabilities and community expectations.

Our community has a long history of supporting DOE national defense and environmental management programs. We are proud of the role our site played in winning the cold war, and we are equally anxious to play a role in reducing the new nuclear danger which has resulted from excess plutonium being released from military needs. As the prestigious National Academy of Sciences has stated, "The existence of this material constitutes a clear and present danger to national and international security." Disposing of surplus plutonium from the U.S. and Russian nuclear programs must be a top priority in the pursuit of world peace and stability.

If the U.S. does not dispose of its surplus plutonium, neither will Russia. Conversely, it is equally important that the U.S. and Russian programs proceed in parallel to prevent concerns about either country gaining a strategic advantage. Together the two countries have indicated that 100 metric tons of weapons-usable plutonium are surplus to current military needs and proposed for disposition. **The opportunity to dispose of enough plutonium to make over 20,000 modern nuclear weapons must be seized upon and aggressively pursued.**

We believe that DOE has wisely chosen a hybrid approach for disposition of surplus plutonium:

- Isotopically "denaturing" weapons-grade plutonium by irradiation in a nuclear reactor is the surest and most efficient means of destroying this material. By burning plutonium in mixed oxide fuel, it will undergo nuclear transformation into a product

DCR013-1

Alternatives

DOE acknowledges the commentor's support of the hybrid approach. Pursuing both immobilization and MOX fuel fabrication provides the United States important insurance against potential disadvantages of implementing either approach by itself. The hybrid approach also provides the best opportunity for U.S. leadership in working with Russia to implement similar options for reducing Russia's excess plutonium in parallel. Further, it sends the strongest possible signal to the world of U.S. determination to reduce stockpiles of surplus plutonium as quickly as possible and in a manner that would make it technically difficult to use the plutonium in nuclear weapons again.

**ECONOMIC DEVELOPMENT PARTNERSHIP
ERNIE CHAPUT
PAGE 2 OF 2**

that is no longer capable for efficient use in nuclear weapons and will make theft and recovery of the degraded material extremely difficult.

- Immobilizing weapons-grade plutonium that contains impurities which make it unsuitable for burning in nuclear reactors by mixing with DOE high-level waste and creating solid ceramic and glass-like materials. While this process will not destroy the “weapons-grade” characteristics of the plutonium, it will make theft and recovery of the immobilized material very difficult.

We believe that DOE has properly analyzed safety issues and demonstrated that both options for surplus plutonium disposition can be safely conducted. Oversight by the Nuclear Regulatory Commission will serve to further assure the safe execution of this activity.

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In summary, as DOE considers the proportion of materials for disposition by irradiation and immobilization, we recommend that the ultimate objective of this program be kept clearly in focus: **Which option provides the greatest surety that the surplus materials can never be used again in modern nuclear weapons.** The Economic Development Partnership believes that future generations will be significantly more secure if we act today to **destroy** our surplus weapons-grade plutonium materials, not just lock them away and make them difficult to recover. Therefore, we believe that burning weapons-grade plutonium in nuclear reactors should be the first option for disposition of surplus plutonium, with immobilization being used only when burning is not possible.

Thank you for the opportunity to comment on this important matter.

DCR013



June 28, 1999

Mr. S. Best Stevenson, NEPA Compliance Officer
Office of Finite Materials Disposition
U.S. Dept of Energy (DOE)
P.O. Box 23786
Washington, D.C. 20026-3786

Dear Mr. Stevenson:

The purpose of this letter is to let you know that we will be submitting comments on the Supplement to the Draft Suspicion Plutonium Reprocessed Environmental Impact Statement around the middle of July.

Notes regarding the availability of the Supplement arrived at our office on June 7th and the document itself several days later. (See attached copies of notices showing they were all mailed on Jan 3rd).

We ask that our comments be fully considered; that the total list of our comments appear in the final document; and that our mailing address and E-mail address be included.

Thank you for phoning me on June 16th. The information you provided then together with the comments/questions and response presentations at the June 24th meeting in Columbia have contributed to our having a better understanding of the DOE's proposals regarding weapons plutonium.

Please send us the transcript or minutes of the June 15th public meeting in Washington. A record of this meeting and a list of those attending would be helpful to us in preparing our comments as well as the transcript of the June 24th meeting held by State Senator Phil Leventis.

Sincerely,

cc - Senator Leventis
Intervenor Parties

Ruth Thomas
President

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MR023

MR023-1

General SPD EIS and NEPA Process

DOE gave equal consideration to all comments received on the SPD Draft EIS and Supplement to the SPD Draft EIS. The comments and their responses are presented in Volume III, Chapter 3 and Chapter 4, respectively. The public hearing comment summary report for the Supplement and hearing attendance list has been sent under separate cover. Transcripts of the June 24, 1999 meeting hosted by State Senator Phil Leventis are presented as Appendix A in Volume III.

 **Now Available - The Department of Energy's Supplement to the Draft Surplus Plutonium Disposition Environmental Impact Statement**

United States Department of Energy

Dear Stakeholder,

The Department of Energy has released a supplement to the Draft Surplus Plutonium Disposition Environmental Impact Statement which focuses on information developed as part of the MOX Procurement Process. The comment period for this document is from May 14 to June 28, 1999. You may request a copy of this document as follows:

MAIL	FAX/PHONE
United States Department of Energy Office of Fissile Materials Disposition P.O. Box 23786 Washington, DC 20026-3786	1-800-820-5156 Please leave your name and complete mailing address on the answering machine.

WORLD WIDE WEB
<http://www.doe-md.com>

Office of Fissile Materials Disposition

 **ANNOUNCING A PUBLIC MEETING ON THE SUPPLEMENT TO THE DRAFT SURPLUS PLUTONIUM ENVIRONMENTAL IMPACT STATEMENT**

United States Department of Energy

This is to inform all interested parties that the Department of Energy's Office of Fissile Materials Disposition will hold a public meeting on the Supplement to the Draft Surplus Plutonium Environmental Statement. There will be two identical morning and afternoon sessions.

Tuesday, June 15, 1999
 9:00am - 12:00pm
 and
 1:30pm - 4:30pm
 Hotel Washington
 515 15th St., NW
 Washington, DC 20004

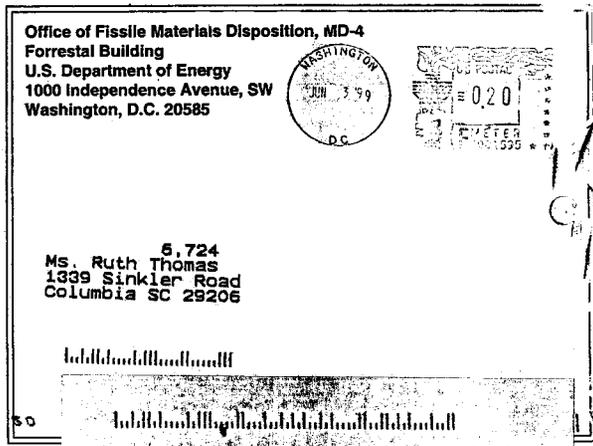
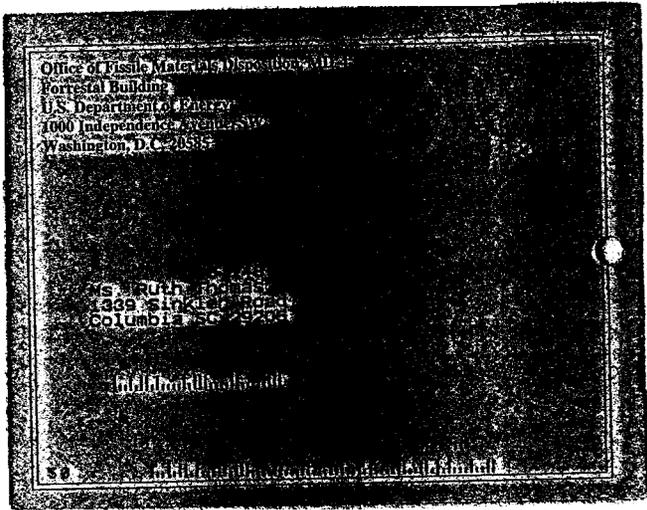
Preregistering for the meeting may be done at either:

Website Registration: <http://www.doe-md.com>
 Preregistration Telephone Number: 1-800-820-5134

Office of Fissile Materials Disposition

MR023

ENVIRONMENTALISTS INC.
RUTH THOMAS
PAGE 3 OF 5



MR023



**Supplement to the Draft Surplus Plutonium
 Disposition Environmental Impact Statement**

United States Department of Energy

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<p>MAIL United States Department of Energy Office of Fissile Materials Disposition P.O. Box 23786 Washington, DC 20026-3786</p>	<p>FAX/PHONE 1-800-820-5156 Please leave your name and complete mailing address on the answering machine.</p>
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WORLD WIDE WEB
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PUBLIC MEETING

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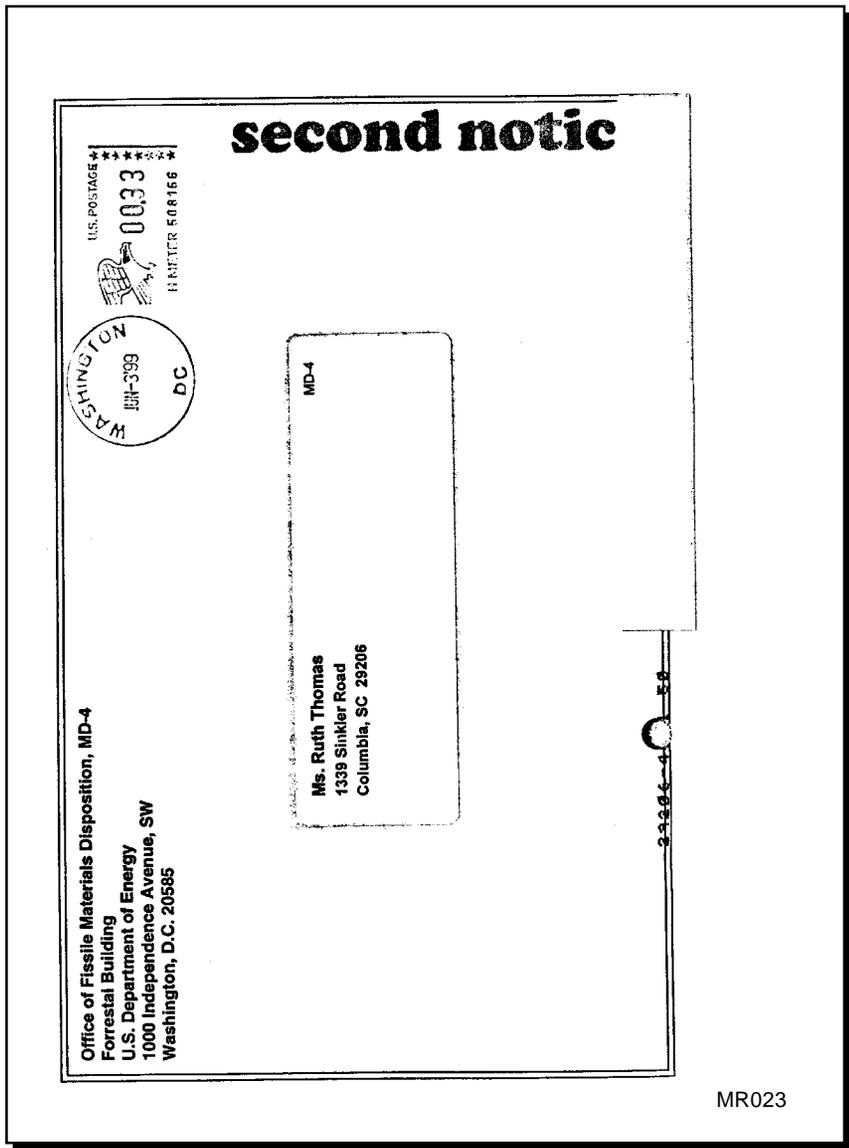
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Office of Fissile Materials Disposition

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MR023



MR023

CLAUDE L. GILBERT, JR.
1104 CANDLEWOOD DRIVE
HOPKINS, SOUTH CAROLINA 29061

US Department of Energy
Office of Fissile Materials Disposition
PO Box 23786
Washington, DC 20026-3786

June 24, 1999

RE: Surplus Plutonium Disposition

Dear Sir:

As a native South Carolinian and US citizen, I have followed the events over the past 45 years that have turned my homeland into a nuclear dump. While the thought of ridding the world of surplus plutonium sounds good, I believe your decision to use MOX nuclear fuel in commercial reactors will cause more problems than it solves.

Why should I believe you when you state that this process is safe?

- 1) There are unexplained illnesses or "cancer clusters" around 14 of 14 DOE facilities in the US. Commercial nuclear reactors are nothing more than high level waste dumps for spent fuel rods. Yucca Mountain is nothing more than a pipe dream.
- 2) Westinghouse (aka CBS) after 16 years and \$489 million have failed to deal with the waste problems already at SRS. (exploding benzine among many more problems) SC already has radioactive fish in the Savannah River, deformed wildlife and contaminated ground water. A MOX facility will just add to the problem.
- 3) Cogema has not only contaminated the sea bed off of the coast of France, but also the air is 90,000 times more radioactive than background readings. Reprocessing is such a polluting industry that Cogema has turned the air radioactive. Childhood leukemia has increased.
- 4) BNFL has contaminated the area around Sellafield, England as much as Chernobyl. A slow-motion accident played out over four decades. The seafood is radioactive as well.
- 5) After many years of misleading the public, Germany, the inventors of nuclear power have decided to phase out this technological failure because of economic, health, transportation and safety issues. Using MOX fuel and establishing a plutonium economy with a failed industry will only hurt the US taxpayer and endanger everyone on the planet.
- 6) Although MOX fuel has been used occasionally in Europe, it is not made with such a high percentage of plutonium-239 as is contemplated for the US. This form of plutonium is the material of choice for nuclear weapons precisely because it is easiest to explode. Obviously, this is not the goal in reactor operation. Compounding the concern about weapons material is the disclosure that the plutonium is not pure. In order to make the weapons, other ingredients were added to the plutonium. One of these is Gallium, which has not been put into a reactor core before, and which interacts with zirconium, one of the metals composing the fuel rod's cladding. Compromise of fuel cladding can cause a host of problems including greatly increased releases of radioactivity to air and water.
- 7) The plan to build a MOX plant at US taxpayer expense in Russia will only guarantee that weapons grade plutonium is spread across the globe under the guise of peaceful nuclear cooperation. Do you trust the Russians? How about their nuclear supply partners Iran and India?

As you know, these are just a few of the problems worldwide. I strongly object to the MOX plan. It would be far more prudent to pursue immobilization.

Thank you.

Claude L. Gilbert, Jr.

MR009

MR009-1

MOX Approach

DOE acknowledges the commentator's objection to the use of MOX fuel in commercial reactors. DOE has identified as its preferred alternative the hybrid approach. Pursuing both immobilization and MOX fuel fabrication provides the United States important insurance against potential disadvantages of implementing either approach by itself. The hybrid approach also provides the best opportunity for U.S. leadership in working with Russia to implement similar options for reducing Russia's excess plutonium in parallel. Further, it sends the strongest possible signal to the world of U.S. determination to reduce stockpiles of surplus plutonium as quickly as possible and in a manner that would make it technically difficult to use the plutonium in nuclear weapons again.

The safety, health, and environmental consequences of the MOX approach at the proposed reactors are addressed in Section 4.28. In addition, NRC would evaluate license applications and monitor the operations of both the MOX facility and domestic, commercial reactors selected to use MOX fuel, to ensure adequate margins of safety.

MR009-2

Human Health Risks

Epidemiological studies performed to determine if excess health effects have occurred, or are occurring, in the vicinity of the candidate sites for surplus plutonium disposition are summarized in the *Storage and Disposition PEIS*. Other DOE sites are beyond the scope of this SPD EIS. Over the past year, DOE and the Department of Health and Human Services (HHS) have produced draft plans to determine the future direction of public health activities at 18 DOE sites (including the sites evaluated in this EIS) and naval shipyards in three States. The plans contain background information on the site; information learned from previous studies and assessments; current public health activities conducted by HHS and DOE; gaps in knowledge and important issues that need to be addressed; and proposed new activities. These plans may be viewed on the DOE Web site at <http://www.tis.eh.doe.gov/epi>.

This SPD EIS assumes, for the purposes of analysis, that Yucca Mountain, Nevada, would be the final disposal site for all immobilized plutonium and

MOX spent fuel. As directed by the U.S. Congress through the NWPA, as amended, Yucca Mountain is the only candidate site currently being characterized as a potential geologic repository for HLW and spent fuel. DOE has prepared a separate EIS, *Draft Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada* (DOE/EIS-0250D, July 1999), which analyzes the environmental impacts from construction, operation and monitoring, related transportation, and eventual closure of a potential geologic repository. The potential MOX spent fuel and/or immobilized plutonium are included in the inventory analyzed in that draft EIS.

MR009-3

Waste Management

DOE appreciates the commentor's concern that surplus plutonium disposition activities not contaminate the environment. DOE and its contractors at SRS are working hard to remediate existing contamination. In recent years, seepage basins have been closed, pump and treat systems have been installed to remove contaminants from the groundwater, and new wastewater treatment facilities have been installed. Much is yet to be done, but as described in the report, *Accelerating Cleanup: Paths to Closure* (DOE/EM-0362, June 1998), DOE has an ambitious plan to accomplish the cleanup of SRS.

The SPD EIS analyzes the potential environmental impacts associated with implementing the proposed activities at the candidate sites. The results of these analyses, presented in Chapter 4 of Volume I and summarized in Section 2.18, indicate that implementation of any of the proposed activities would not have a major impact on any of the candidate sites. To avoid contamination that has occurred in the past at some DOE sites, DOE would design, build, and operate the proposed surplus plutonium disposition facilities in compliance with today's environmental, safety and health requirements.

MR009-4

MOX Approach

Recent reports prepared by the French Government have concluded that the radioactive releases from the La Hague Plant are not the cause of an excess of

childhood leukemia in the area of the plant between 1978 and 1996. The La Hague Plant is a spent fuel reprocessing plant. The use of U.S. surplus plutonium in existing domestic, commercial reactors does not involve reprocessing (reprocessing is a chemical separation of uranium, transuranic elements [including plutonium], and fission products from spent reactor fuel and the reuse of the plutonium and uranium to produce new fresh fuel). The NRC license would authorize only the participating reactors to use MOX fuel fabricated from surplus plutonium, and the irradiation would be a once-through cycle.

European reactors of various designs use MOX fuel. European nuclear regulatory authorities have reviewed MOX fuel use in reactors of varying designs and found it to be safe and acceptable.

Use of MOX fuel in domestic, commercial reactors is not proposed in order to advocate a plutonium economy. Rather, the purpose of this proposed action is to safely and securely disposition surplus plutonium by meeting the Spent Fuel Standard. The Spent Fuel Standard, as identified by NAS and modified by DOE, is to make the surplus weapons-usable plutonium as inaccessible and unattractive for weapons use as the much larger and growing quantity of plutonium that exists in spent nuclear fuel from commercial power reactors. The MOX facility would produce nuclear fuel that would displace LEU fuel that utilities would have otherwise purchased. If the effective value of the MOX fuel exceeds the cost of the LEU fuel that it displaced, then the contract provides that money would be paid back to the U.S. Government by DCS based on a formula included in the DCS contract. The commercial reactors selected for the MOX approach include only those reactors whose operational life is expected to last beyond the life of the surplus plutonium disposition program.

MR009-5

MOX Approach

Reactor fuel in Europe is fabricated to similar enrichment levels (about 5 percent plutonium 239) to the levels being proposed for the U.S. reactors that would be used to irradiate MOX fuel.

On the basis of public comments received on the SPD Draft EIS, and the analysis performed as part of the MOX procurement, DOE has included plutonium polishing as a component of the MOX facility to ensure adequate impurity removal (including gallium) from the plutonium dioxide. Appendix N was deleted from the SPD Final EIS, and the impacts discussed therein were added to the impacts sections presented for the MOX facility in Chapter 4 of Volume I. Section 2.18.3 was also revised to include the impacts associated with plutonium polishing.

MR009-6

Nonproliferation

The *Joint Statement of Principles* signed by Presidents Clinton and Yeltsin in September 1998 provide general guidance for achieving the objectives of a future bilateral agreement to disposition surplus plutonium in the United States and Russia. Sensitive negotiations between the two countries have indicated that the Russian government accepts the technology of immobilization for low-concentration, plutonium-bearing materials, but that the MOX approach would be considered for higher-purity feed materials.

Russia may choose to reprocess its spent fuel and reuse the plutonium. It will be the responsibility of IAEA to monitor this activity and ensure that the material remains committed to civilian use. Programmatic and policy issues such as U.S. policies toward plutonium disposition in Russia are beyond the scope of this SPD EIS.

POE, W. LEE, JR.
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807 E. Rollingwood Rd.
Aiken, SC 29801
June 15, 1999

Mr. G. Bert Stevens
Department of Energy FAX 1-800-820-5156
Office of Fissile Materials Disposition, MD-4
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Washington, DC 20585

CC: Mr. Greg Rudy, Manager FAX 725-1910
Savannah River Operations Office

Mr. Andrew Granger, SR NEPA Compliance Officer FAX 725-4023
Savannah River Operations Office

Ms. Mary Flora, WSRC Manager of Public Involvement FAX 725-4023
Westinghouse Savannah River Company

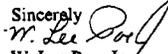
Re: Public Meeting on Supplement for Surplus Plutonium EIS

Dear Sir:

I have heard of no public meeting being scheduled on the supplemental EIS for surplus plutonium management in the Aiken Augusta area. I am disappointed that you do not consider the stakeholders in the Savannah River Site from South Carolina-Georgia important to this mission. I suggest that you reconsider and hold a meeting on this subject in this area.

I do not understand the intent of the meeting from your "Second Notice" announcement but Savannah River Site seems to be important to this mission so I expect your Office to keep the SRS stakeholders up to date on these issues. It is clear to me that we, stakeholders, are important to that mission. Keep us up to date on the Office of Fissile Materials plans.

If you are unable to hold a public meeting on these plans in the Aiken-Augusta area, what strategy do you have for informing the SRS stakeholders?

Sincerely

W. Lee Poe, Jr.

FR002

FR002-1

General SPD EIS and NEPA Process

DOE acknowledges the commentor's request for a public hearing on the *Supplement to the SPD Draft EIS* be held in the Aiken-Augusta area. After careful consideration of its public involvement opportunities, including the availability of information and mechanisms to submit comments, DOE decided not to hold additional hearings on the *Supplement*. In addition to the public hearing on the *Supplement* held in Washington, D.C., DOE provided other means for the public to express their concerns and provide comments: mail, a toll-free telephone and fax line, and the MD Web site. Also, at the invitation of South Carolina State Senator Phil Leventis, DOE attended and participated in a public hearing held on June 24, 1999, in Columbia, South Carolina.

The *Supplement* was mailed to those stakeholders who requested it as well as to those specified in the DOE *Communications Plan* (i.e., Congressional representatives, State and local officials and agencies, and public interest groups around the United States) and the utilities' contact lists. The utilities, Duke Power Company and Virginia Power Company, would operate the proposed reactors (located in North Carolina, South Carolina, and Virginia) should the MOX approach be pursued per the SPD EIS ROD. Further, interested parties would likely have the opportunity to submit additional comments during the NRC reactor license amendment process.

Since the inception of the U.S. fissile materials disposition program, DOE has supported a vigorous public participation policy. SRS stakeholders who are in the MD stakeholder database will be kept directly informed of the progress on the surplus plutonium disposition program through notices and announcements sent by mail. Indirectly, interested parties may get information from the MD Web at <http://www.doe-md.com>, the DOE reading rooms, and local and site media announcements.

SOUTH CAROLINA SENATE
HONORABLE PHIL P. LEVENTIS
PAGE 1 OF 1

SENATOR PHIL P. LEVENTIS
SUMTER COUNTY

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COMMITTEES:
AGRICULTURE AND NATURAL RESOURCES.
CHAIRMAN
FINANCE
LABOR, COMMERCE & INDUSTRY
TRANSPORTATION
ETHICS
MEDICAL AFFAIRS

June 30, 1999

The Honorable Bill Richardson
Secretary of Energy
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20582

Dear Secretary Richardson:

I want to say thank you again for your willingness to participate in the public hearing that I held on Thursday, June 24, 1999, in Columbia, South Carolina. The advertising that your Department sponsored on the radio and in the newspaper ensured that at least one hundred or more interested individuals had the opportunity to hear directly from the Department of Energy regarding the proposed Mixed Oxide Fuel Program. I was very appreciative of the number of DOE officials who participated and traveled from such distances as Argonne, Illinois, Washington, D.C., Charlotte, North Carolina, as well as Aiken, South Carolina. Flying Mr. Denis Hugelmann from France to discuss Cogema's expertise and role in the consortium was also most helpful and very important. This effort on your part has not gone unnoticed. I along with others who assisted in my organizing this public hearing were impressed with the Department's assistance in making the hearing a success. The Department demonstrated a true interest in trying to reach out to the public by candidly responding to the series of questions that I asked at the beginning of the hearing and by patiently listening to the questions and concerns raised by the public on the proposed MOX program.

I have spoken to your Principal Deputy Assistant Secretary, Ms. Linda Lingle, and have conveyed my thanks to her and all that she did to make the hearing a success. However, I want to be sure that you understand the depth of my appreciation. I look forward to continuing a dialogue with you and your Department on his matter.

Sincerely,

Phil P. Leventis

A handwritten signature in cursive script that reads "Phil P. Leventis".

PPL:pap

cc: The Honorable James H. Hodges
SC Congressional Delegation
Ms. Linda Lingle, USDOE
✓ Mr. Bert Stevenson, USDOE
Ms. Laura Holgate, USDOE
Mr. David Nulton, USDOE
Mr. Charlie Anderson, USDOE
Mr. Robert C. Selby, USDOE
Mr. R.H. Ihde, Duke, Cogema, Stone & Webster Consortium
Mr. Denis Hugelmann, Cogema
Dr. Arjun Makhijani, IEER
Mr. Ethan Brown, Carolina Peace Resource Center

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MR025

MR025-1

General SPD EIS and NEPA Process

DOE acknowledges the Senator's appreciation of its efforts in supporting the public meeting held on June 24, 1999, in Columbia, South Carolina. Since the inception of the fissile materials disposition program, DOE has supported a vigorous public participation policy.

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Comment Documents and Responses on the Supplement—South Carolina

