

**BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE**

PO Box 88 -- Glendale Springs, North Carolina 28629 Phone 336-982-2691 -- Fax 336-982-2954 -- Email bred@skybest.com

August 10, 1998

via facsimile # 800-820-5156

Office of Fissile Materials Management  
U.S. Department of Energy  
PO Box 23786  
Washington, D.C. 20026-3786

Dear Sir or Madam:

We, the undersigned, write to request both a sixty-day extension of the public comment period and additional public hearings in North Carolina on the Draft Surplus Plutonium Disposition Environmental Impact Statement. We write also to support requests by other citizens' groups and individuals for additional public hearings in affected communities. The SPDEIS is the latest National Environmental Policy Act document that will help shape decisions on how to dispose of up to fifty metric tons of weapons usable plutonium that has been declared surplus to national security needs. Full public debate must occur now.

**Extend the Public Comment Period for Sixty Days**

The Department of Energy is allowing for a sixty day comment period for people to review and provide comments on a large, complex document that references twenty-eight other related NEPA documents, an economic report that not released until July 28, 1998, and numerous Data Reports. The Data Reports are unavailable to people who are not near a Department of Energy Reading Room, yet contain crucial information. For example, on page J-4 of the Draft SPDEIS, DOE wrote that, "source term data for radiological releases, stack heights, and release locations are provided in the Data Reports for the pit conversion, immobilization, and MOX facilities." In other words, the Draft SPDEIS does not contain any data on something as basic as expected quantities of radioactive air pollutants.

**Provide for Additional Public Hearings**

The Department of Energy is planning only five public hearings, four in the communities closest to DOE sites being considered for new plutonium processing plants, and one regional meeting in a downstream community (Portland). This public hearings schedule will likely dilute the diversity of public comments; inhibit the involvement of downwind and downstream communities that generally bear liabilities without benefits; and skew the public opinion curve in favor of DOE proposals.

DOE should add the following hearings to its list:

1. Regional Hearings in Savannah, Georgia and Columbia, South Carolina. The Savannah River Site is the preferred candidate site for all three new plutonium processing facilities. Real impacts on the Savannah River from SRS operations and accidents are well documented, with the most notable being the December, 1991 tritium leak that quickly reached Savannah, Georgia. DOE

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the man must either remove the creditor or pay the bill. ~ Alice Paul*

SCD30

**SCD30-1**

**General SPD EIS and NEPA Process**

DOE believes that the comment period, longer than required by CEQ's NEPA regulations, allowed sufficient time for public review of the SPD Draft EIS. Although it did not extend the comment period, DOE did consider all comments received after the close of that period. All comments were given equal consideration and responded to.

Appendix J was revised to include expected radiological release quantities from each of the proposed surplus plutonium disposition facilities. DOE's descriptions of the affected environment and the potential environmental impacts in this SPD EIS are in accordance with 40 CFR 1502.15 and 40 CFR 1502.16. These descriptions are no longer than necessary for an understanding of the effects of the alternatives, and the analyses and data are commensurate with the significance of the impact, the less-important information being consolidated, summarized, or referenced. Resources such as the data reports are available in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

**SCD30-2**

**General SPD EIS and NEPA Process**

It was not possible to hold hearings in all areas of the country; therefore, the hearings were restricted to locations where the greatest impacts of the proposed surplus plutonium disposition facilities could be expected. DOE did, however, provide various other means for public comment on this SPD EIS: mail, a toll-free telephone and fax line, and the MD Web site. During preparation of the *Storage and Disposition PEIS*, regional hearings were held in locations such as Boston, Chicago, San Francisco, and Denver. Denver was included because the PEIS dealt with the removal of materials from RFETS. DOE made, and is honoring, a commitment to get all plutonium out of RFETS. Additional hearings in Denver were not held because the proposed surplus plutonium disposition facilities would not be sited in the area. Shipment of MOX fuel to Canada for testing is under consideration as part of a separate EA, and is beyond the scope of this EIS. The *Environmental Assessment for the Parallelex Project Fuel*

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cannot justify a lack of public hearings in Savannah or Columbia, which will bear the greatest liability from its proposals.

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2. Regional hearings in communities near nuclear reactor sites that are being proposed for irradiation of Mixed Oxide (MOX) fuel. Consortiums of utilities and nuclear fuel fabricators are scheduled to submit Proposals for MOX Fuel Fabrication and Irradiation Services August 1998. We request that a public hearing be held in Raleigh and Charlotte, North Carolina, where reactor communities and the affected public are located.

DOE has stated that "environmental impact analysis relating to specific reactors will be included in the SPD Final EIS," although these analyses are scheduled to be made by Consortiums in their Proposals. During the 1997 Scoping for the SPDEIS, DOE was repeatedly asked to involve nuclear reactor communities in the NEPA process, yet ignored these comments while moving forward on a process to select reactor sites that excludes community input. DOE cannot justify soliciting public comment for the site selection process for plutonium processing facilities, while excluding public involvement in selecting plutonium irradiation facilities.

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3. A regional hearing in Denver, Colorado. Denver is in proximity to Rocky Flats where approximately 25% of the surplus plutonium is in storage, so the area has a stake in the decisions being made. Furthermore, DOE has never held hearings to discuss plutonium immobilization of Rocky Flats plutonium as a reasonable alternative, and is proposing to weaken the requirements for shipping plutonium from Rocky Flats to Savannah River Site.

4. A regional hearing in Dallas, Texas. Dallas is likely to be in the transportation corridor for shipments of special nuclear materials and radioactive waste from new operations. The Department of Energy cannot legitimately claim that state-wide support exists in Texas for Pantex becoming a new DOE plutonium processing site without seeking input from outside the Amarillo area.

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5. A hearing in Washington D.C., where decisions are made, policy is formulated, and a substantial community of non-governmental organizations exists to monitor the Department of Energy, and where a larger community of organizations exists to monitor how taxpayer dollars are spent.

6. Port Huron, Michigan (or other location), the location of the border crossing for plutonium fuel shipments to Chalk River, Ontario to test in CANDU reactors. DOE is still considering the option of burning MOX fuel in CANDU reactors, yet has effectively excluded Canadian citizens from the process. The hearing could be a cooperative public event held with the Atomic Energy of Canada, Ltd.

The abundant uncertainties and recent changes in direction in the Department of Energy's hazardous plutonium disposition program indicates a continued need to subject Federal proposals to the highest and most rigorous levels of public debate possible. DOE has already failed to

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*Manufacture and Shipment* (DOE/EA-1216, January 1999) and FONSI (August 1999) can be viewed on the MD Web site at <http://www.doe-md.com>.

DOE actively sought public comments on the SPD Draft EIS and distributed approximately 1,700 copies of the document to all interested parties. All comments, regardless of how they were submitted, were given equal consideration and responded to.

**SCD30-3 General SPD EIS and NEPA Process**

Regional public hearings on the nuclear reactor sites proposed for the irradiation of MOX fuel could not be conducted during the public comment period for the SPD Draft EIS, as no sites had been designated by that time. The SPD Final EIS was not issued until specific reactors had been identified and the public had an opportunity to comment on the reactor-specific information. As part of the procurement process, bidders were asked to provide environmental information to support their proposals. This information was analyzed in an Environmental Critique prepared for the DOE source selection board prior to award of the MOX fuel fabrication and irradiation services contract. DOE then prepared an Environmental Synopsis on the basis of the Environmental Critique, which was released to the public as Appendix P of the *Supplement to the SPD Draft EIS* in April 1999.

**SCD30-4 General SPD EIS and NEPA Process**

Since the inception of the fissile materials disposition program, DOE has supported a vigorous public participation policy. It has conducted public hearings in excess of the minimum required by NEPA regulations to engender a high level of public dialogue on the program. The office has also provided the public with substantial information in the form of fact sheets, reports, exhibits, visual aids, and videos related to fissile materials disposition issues. It hosts frequent workshops, and senior staff members make presentations to local and national civic and social organizations on request. Additionally, various means of communication—mail, a toll-free telephone and fax line, and a Web site (<http://www.doe-md.com>)—have been provided to facilitate the public

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implement the easiest part of its plutonium storage and disposition program. At Pantex it has abandoned its new "safer" container and a proposed facility upgrade for plutonium pit storage. For Rocky Flats plutonium, it is already amending the "Record of Decision" for the "Storage and Disposition of Weapons-Usable Fissile Materials Final Programmatic Environmental Impact Statement" to "address the environmental impact of utilizing the K-Reactor facility for plutonium storage, the possibility that plutonium stabilization would be done at SRS instead of at RFETS, the shipment of plutonium to SRS before the APSF storage vault is operational, the shipment of some materials from RFETS that are less than 50% plutonium, and the need to utilize direct metal casting in FB-Line to de-classify some of the RFETS." (Defense Nuclear Facilities Safety Board Weekly Report for Savannah River Site, June 26, 1998).

The National Environmental Policy Act requires Federal Agencies to insure that high quality "environmental information is available to public officials and citizens before decisions are made and before actions are taken", and that substantial and meaningful public involvement in the planning and decision process. By restricting public hearings to a few communities, DOE would be violating the spirit of NEPA.

Signed,

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dialogue. It is DOE policy to encourage public input into these matters of national and international importance.

**SCD30-5 Storage and Disposition PEIS and ROD**

DOE acknowledges the commentors' concern regarding the safe storage of plutonium pits at Pantex. DOE is committed to the safe, secure storage of pits and is evaluating options for upgrades to Pantex Zone 4 facilities to address plutonium storage requirements. DOE has addressed some of the commentor's concerns in an environmental review concerning the repackaging of Pantex pits into a more robust container. This evaluation is documented in the *Supplement Analysis for: Final Environmental Impact Statement for the Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Components—AL-R8 Sealed Insert Container* (August 1998). This document is on the MD Web site at <http://www.doe-md.com>. Based on this supplement analysis, the decision was made to repackage pits at Pantex into the AL-R8 sealed insert container and to discontinue plans to repackage pits into the AT-400A container.

**SCD30-6 Storage and Disposition PEIS and ROD**

DOE conducted a supplement analysis for the early movement to and storage of the RFETS surplus plutonium in Building 105-K after modifications to enable safe, secure plutonium storage. Based on this analysis, DOE issued the amended ROD, referenced by the commentor, in the Federal Register (63 FR 43392) on August 13, 1998, in fulfillment of the letter and spirit of NEPA (40 CFR 1506.6(b)). The decision is contingent on a decision under this SPD EIS to locate an immobilization facility at SRS. A copy of the amended ROD and the supplement analysis is available in the DOE reading rooms and on the MD Web site at <http://www.doe-md.com>.

**BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE**

PO Box 88 -- Glendale Springs, North Carolina 28639 Phone 336-982-2491 -- Fax 336-982-2954 -- Email bredl@skybest.com

**Comments of Lou Zeller to the Office of Fissile Materials Disposition  
regarding the Surplus Plutonium Disposition Draft EIS  
August 13, 1998, North Augusta, South Carolina.**

My name is Louis Zeller and I am on the staff of the Blue Ridge Environmental Defense League. Our organization was founded in 1984 in response to the Department of Energy's Crystalline Repository Project which planned to bury high level nuclear waste in a deep hole in the ground. Together with thousands of activists, we organized to halt that ill-conceived project.

Today I address the draft EIS for surplus plutonium disposition which would take fissile materials from Hanford, Washington and Rocky Flats, Colorado and move it to the Savannah River Site in preparation for reprocessing. I have studied available documents including the DOE's 6450-01-P on amending the Record Of Decision on the Storage and Disposition of Weapons-Usable Fissile Materials. Although the Amended Record of Decision would increase the transport and storage of plutonium from 10 MT to 11.6 MT, it would also open the door to reprocessing of plutonium into commercial nuclear reactor fuel.

We oppose the planned "burning" of surplus weapons-usable plutonium as mixed oxide fuel in existing commercial light water reactors outlined in the SPDEIS. It is simply not possible to burn plutonium. The continued use of Orwell-like terms to describe DOE actions does nothing to increase public confidence in the DOE's programs. Another example: To "declassify" in DOE newspeak means to reprocess plutonium metal for storage at SRS.

Furthermore, the use of plutonium oxide fuel, or POX, in commercial power reactors will not significantly reduce the amount of plutonium. Nuclear reactors produce plutonium where none existed before. A typical commercial reactor produces 500 pounds of plutonium a year. Government contractors have estimated that using POX in commercial reactors would reduce the total plutonium by only 1%. To this must be added the dangers of reactor component embrittlement caused by the POX fuel's higher neutron flux. This will shorten the expected lifespan of utility reactors and increase the risk and the severity of accidents. Utility ratepayers and the taxpayers will pay for all this, and our children and grandchildren will bear the negative health effects and genetic abnormalities.

Even without an accident, people who live, work, and go to school near the transport routes will be dosed with radiation. The transport casks have never been subjected to real-world tests. In the name of reducing the nuclear threat, the U.S. government will give terrorists thousands of miles of opportunities to seize or sabotage radioactive materials.

In 1994 and 1995, the Foreign Research Reactor Spent Nuclear Fuel program provided the Blue Ridge Environmental Defense League and our allies with an opportunity to expose the myth of nuclear non-proliferation. The firestorm of publicity ignited by the Don't Nuke North/South Carolina Campaign made it impossible for elected officials charged with protection of public health to avoid the issue. Our methods were straightforward, our goal simple: get the word

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**SCD29-1**

**Storage and Disposition PEIS and ROD**

DOE acknowledges the commentor's concern about the movement of fissile materials from Hanford and RFETS to SRS. In order to support the early closure of RFETS and the early deactivation of plutonium storage facilities at Hanford, DOE has modified, contingent upon certain conditions, some of the decisions made in its *Storage and Disposition PEIS* ROD. Hanford and RFETS surplus plutonium would not be of a quality suitable for use as MOX fuel in a domestic, commercial reactor.

U.S. policy dating back to the Ford Administration has prohibited the commercial, chemical reprocessing and separation of plutonium from spent nuclear fuel. The use of U.S. surplus plutonium in existing 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 proposed use of MOX fuel is consistent with the U.S. nonproliferation policy and would ensure that plutonium which was produced for nuclear weapons and subsequently declared excess to national security needs is never again used for nuclear weapons.

**SCD29-2**

**MOX Approach**

DOE acknowledges the commentor's opposition to the use of MOX fuel in commercial reactors. Commentor is correct that using MOX fuel does not destroy all the plutonium. However, the MOX approach does meet 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.

**SCD29-3**

**General SPD EIS and NEPA Process**

The declassification at SRS of plutonium residues from RFETS is the subject of the *Supplement Analysis for Storing Plutonium in the Actinide Packaging and Storage Facility and Building 105-K at the Savannah River Site* (July 1998) and amended ROD for the *Storage and Disposition*

*PEIS*. It is important that this limited amount of material be changed from its current form into a form that does not allow for proliferation of the knowledge or means of nuclear weapons fabrication to terrorists or rogue states. The plutonium resulting from the declassification action could be either immobilized or used to fabricate MOX fuel.

**SCD29-4**

**MOX Approach**

DOE acknowledges the commentator's opposition to the MOX approach. Although no U.S. commercial reactors are licensed to use plutonium-based fuel, several are designed to use MOX fuel, and others can easily and safely accommodate a partial MOX core. While it is true that not all the plutonium would be consumed during irradiation in a nuclear reactor, the resulting spent fuel would have a radiation barrier equivalent to LEU spent fuel, and recovery of this plutonium would be extremely dangerous, time consuming, and costly.

The higher flux associated with MOX fuel can accelerate reactor component aging. However, this would be taken into account when developing fuel management strategy, including fuel assembly placement in the reactor core. The proposed action anticipates partial, not full, MOX cores in the selected reactors. 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.

Section 4.28 was revised to provide reactor-specific analyses and discuss the potential environmental impacts of using a partial MOX core during routine operations and reactor accidents.

Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. A separate cost report, *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998), which analyzes the site-specific cost estimates for each alternative, was made available around the same time as the SPD Draft EIS. This report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution*

*Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

**SCD29-5****Transportation**

DOE acknowledges the commentor's concern regarding the safety of nuclear materials transportation. DOE is committed to safety and safeguards for its facilities and the transport of materials.

Transportation would be required for both the immobilization and MOX approaches to surplus plutonium disposition. Transportation of special nuclear materials, including fresh MOX fuel, would use DOE's SST/SGT system. Since the establishment of the DOE Transportation Safeguards Division in 1975, the SST/SGT system has transported DOE-owned cargo over more than 151 million km (94 million mi) with no accidents causing a fatality or release of radioactive material. The transportation requirements for the surplus plutonium disposition program are also evaluated in this SPD EIS. As indicated in Section 2.18, no traffic fatalities from nonradiological accidents or LCFs from radiological exposures or vehicle emissions are expected.

Table L-6 summarizes the possibility of a LCF associated with the radiation doses from shipping radioactive material. Type B packages have been used for years to ship radioactive materials in the United States and around the world. To date, no Type B package has ever been punctured or released any of its contents, even in actual highway accidents. No Type B package has seen real-world conditions that approach the severity level of the tests. As described in Appendix L.3.1.6, the Type B package is extremely robust and provides a high degree of confidence that even in extremely severe accidents, the integrity of the package would be maintained with essentially no loss of the radioactive contents or serious impairment of the shielding capability.

out. Our traveling roadshow traced the nuclear transport route from Sunny Point to Wilmington to Pembroke and into South Carolina. The Governor of North Carolina responded with scores of Highway Patrolmen, the State Bureau of Investigation, and a helicopter to accompany the nuclear waste trains. The elaborate preparations for accidents underscores the real danger represented by international commerce of nuclear waste.

Exposing these strategically valuable materials to shipment on the nations highways and byways presents thousands of miles of opportunities for would-be saboteurs, thieves, and terrorists. We demonstrated by our all-night vigil at Sunny Point that anyone so inclined can easily track these shipments. "This just goes to show that any terrorist who can afford a pair of binoculars and a plane ticket could know their every move," said Janet M. Zeller, BREDL's Executive Director. A spokesman for the DOE labeled our actions a "needless breach of security."<sup>4</sup> But the publicity generated by our campaigns does not make sabotage more likely. On the contrary, the increased surveillance and precautions taken by state officials was a direct result of the high media profile.

The Environmental Assessment for the foreign wastes prepared by DOE in 1994 states that the Savannah River Site's receiving basin for the foreign wastes "show no visible signs of corrosion." But in July 1995 a report by the Defense Nuclear Facilities Safety Board inspection team noted that, "significant corrosion of the spent fuel was contaminating the facility, generating significant waste, and contributing to personnel exposure."

The exposure of people living close to the rail lines and highways to ionizing radiation is easily overlooked. Cancers, leukemias, and immune suppression may be delayed for years or decades. Dr. Carl Rupert, BREDL Board of Directors member, estimates the population dose from the expected total of 837 trans-ocean shipments to be 7,885 person-rem, which could result in twenty cancer fatalities from ocean transport of FRR waste alone.

During our Don't Nuke North/South Carolina Campaign we met mostly Native American residents living a stone's throw from the tracks watching the activity at the rail junction. Small homes and housing projects are close to the tracks here. Many people are unable to afford automobiles and telephones. Evacuation would be difficult or impossible. The people of Pembroke believed that the nuclear waste train endangered their community. They did not believe DOE spokesmen who claim, on the one hand, that these materials are too dangerous to be left in storage but that, on the other hand, there is no cause for concern for residents of North and South Carolina.

Our rights in a free society are threatened by the laws deemed necessary to protect these shipments. This nation cannot protect the nuclear fuel cycle from terrorism without becoming a police state. A private citizen standing on public property may view a train or truck and spread the word without jeopardy. However, if that cargo carries nuclear weapons-grade materials the citizen becomes an outlaw. The Blue Ridge Environmental Defense League plans to continue our campaign for as long as it takes to bring an end to this deadly commerce.

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## SCD29-6

## Transportation

DOE's SST/SGT system uses couriers that are armed Federal officers, an armored tractor to protect the crew from attack, and specially designed escort vehicles containing advanced communications and additional couriers. The evaluation of human health risks from transportation are addressed in the Transportation sections in Chapter 4 of Volume I and in greater detail in Appendix L. Human health impacts of the proposed facilities are discussed in the Human Health Risk sections of Chapter 4 and in greater detail in Appendix J. Nonproliferation is only one factor in the decisionmaking process for surplus plutonium disposition. Decisions on the surplus plutonium disposition program at SRS will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

**DUKE COGEMA STONE & WEBSTER**  
**ROBERT H. IHDE**  
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DUKE COGEMA  
STONE & WEBSTER

September 10, 1998

Mr. Bert Stevenson  
NEPA Compliance Officer  
Office of Fissile Materials Disposition  
U.S. Department of Energy  
P.O. Box 23786  
Washington, DC 20026-3786

Subject: **Surplus Plutonium Environmental Impact Statement**

Dear Mr. Stevenson:

Thank you for the opportunity to comment on the draft Surplus Plutonium Disposition Environmental Impact Statement, as published in July 1998.

The attached comments are submitted on the behalf of DUKE COGEMA STONE & WEBSTER. DUKE COGEMA STONE & WEBSTER is leading a consortium of companies which has responded to a Department of Energy request for bids to design, construct and operate a mixed oxide plant. Other members of the team are Framatome COGEMA Fuels, Nuclear Fuel Services, Duke Power and Virginia Power.

Our specific comments on the draft Surplus Plutonium Disposition Environmental Impact Statement are provided in the attachment to this letter. If you have any questions pertaining to these comments, please contact Ms. Mary Birch at (704) 382-2140.

Sincerely,

Robert H. Ihde  
President and CEO  
DUKE COGEMA STONE & WEBSTER

Encl/ Comments on Draft EIS

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**DUKE COGEMA STONE & WEBSTER**

**ROBERT H. IHDE**

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**ATTACHMENT**

DUKE COGEMA STONE & WEBSTER Comments on the Department of Energy's (DOE's) Draft Surplus Plutonium Disposition (SPD) Environmental Impact Statement (EIS)

No. Location Comment

1 Executive Summary, p. S-8 **Specification of "can-in-canister" immobilization as a preferred alternative.**

DOE is proposing "can-in-canister" immobilization as its preferred alternative for immobilization. However, the DOE's own reports<sup>1,2</sup> indicate that "can-in-canister" immobilization does not currently meet the Spent Fuel Standard for long-term nonproliferation resistance. The United States must deploy an effective, accepted plutonium disposition technology or technologies if it wants to encourage international support for plutonium disposition. DUKE COGEMA STONE & WEBSTER expects that concurrent action on the part of Russia to dispose of its surplus plutonium will be predicated on the disposition of United States material in a manner that provides high confidence in its resistance to theft, diversion, or re-use.

**Recommendations:**

1. DOE should consider only those alternatives that meet the Spent Fuel Standard [i.e., mixed oxide (MOX) fuel and homogeneous immobilization] as preferred alternatives.
2. If the DOE pursues deployment of "can-in-canister" immobilization, the DOE should explain how it will demonstrate, in an open, objective, and peer-reviewed process, that the "can-in-canister" plutonium disposition approach will meet this fundamental program requirement - the Spent Fuel Standard.

<sup>1</sup> Sandia National Laboratories, SAND97-8203- Proliferation Vulnerability Red Team Report, October 1996

<sup>2</sup> U.S. Department of Energy, DOE/NN-0007- Nonproliferation and Arms Control Assessment of Weapons-Usable Fissile Material Storage and Excess Plutonium Disposition Alternatives, January 1997

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**MD177-1**

**DOE Policy**

DOE acknowledges the commentor's concern regarding the ability of the immobilization approach to meet the Spent Fuel Standard. In the *Nonproliferation and Arms Control Assessment of Weapons-Usable Fissile Material Storage and Excess Plutonium Disposition Alternatives* (DOE/NN-0007, January 1997), DOE identified two potential liabilities of the immobilization alternatives relative to the Spent Fuel Standard. These liabilities involve ensuring sufficient radiation levels and providing removal-resistant can-in-canister designs. Since that time, DOE has modified the can support structure inside the canisters and has focused its research on the ceramic form of immobilization. As part of the form evaluation process, an independent panel of experts determined (*Letter Report of the Immobilization Technology Peer Review Panel*, from Matthew Bunn to Stephen Cochran, LLNL, August 21, 1997) that the can-in-canister design would meet the Spent Fuel Standard. In addition, NAS is currently conducting studies to confirm the ability of the ceramic can-in-canister immobilization approach to meet the Spent Fuel Standard. DOE is confident that immobilization remains a viable alternative for meeting the nonproliferation goals of the surplus plutonium disposition program.

**DUKE COGEMA STONE & WEBSTER**  
**ROBERT H. IHDE**  
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No.	Location	Comment
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2	Executive Summary, p. S-14	
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**Quantities of plutonium considered in the EIS for disposal using the two approaches.**

The draft EIS states, "Since the ROD was issued, however, DOE has determined that an additional 9 tonnes of low plutonium content materials would require additional processing and would, therefore, be unsuitable for MOX fuel fabrication". DOE alternatives include disposing of a maximum of 33 tonnes of plutonium as MOX fuel, while the alternatives include immobilizing 50 tonnes of surplus plutonium.

DOE has never provided justification that any surplus plutonium is not suitable for MOX use. The DOE has not explained what form this "unsuitable" plutonium is in. The technology descriptions in the draft EIS make it clear that various kinds of processing will be used in the Conversion and Immobilization Facility. Also, a wet processing step has been allowed in the DOE's MOX RFP. It would appear to be possible that some of this processing would render material that is suitable for fabrication into MOX fuel. Finally, the DOE has specified no requirements that the plutonium destined for either MOX fuel or immobilization must satisfy. Therefore, it seems very unlikely that there is any technical basis for any decision about quantities of plutonium that are suitable for either option.

**Recommendation:**

Given the lack of justification for any decision about quantities of material for the two options, DOE should include the evaluation of a 100% (50 tonnes) MOX fuel alternative in the SPD EIS. This is the only way to preserve all appropriate options until the time that the DOE can make a technically defensible evaluation and decision on the allocation of material to the two plutonium disposition approaches.

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**MD177-2****Feedstock**

DOE reviewed the chemical and isotopic composition of the surplus plutonium and determined in the *Storage and Disposition PEIS* ROD that about 8 t (9 tons) of surplus plutonium were not suitable for use in making MOX fuel. Furthermore, DOE has identified an additional 9 t (10 tons) for a total of 17 t (19 tons) that have such a variety of chemical and isotopic compositions that it is more reasonable to immobilize these materials and avert the processing complexity that would be added if these materials were made into MOX fuel. The criteria used in this identification included the level of impurities, processing requirements, and the ability to meet the MOX fuel specifications. Section 2.2 includes a description of the forms of plutonium that would be used for MOX feed and immobilization feed and the levels of impurities present in those materials. As discussed in this section, the plutonium destined for immobilization is mainly in the form of impure oxides, impure metals, plutonium alloys, uranium/plutonium oxide, and some alloyed reactor fuel. Impurities present include neptunium, thorium, and beryllium. None of the material planned for immobilization is in the form of spent fuel, and all of it is considered weapons usable. A further description of the types and amounts of plutonium currently planned for disposition can be found in *Feed Materials Planning Basis for Surplus Weapons-Usable Plutonium Disposition* (MD-0013, April 1997), which is available on the MD Web site at <http://www.doe-md.com>.

**DUKE COGEMA STONE & WEBSTER**  
**ROBERT H. IHDE**  
**PAGE 4 OF 6**

No.	Location	Comment	
3	Executive Summary, p. S-8, Appendix D.	<p><b>Fast Flux Test Facility (FFTF).</b></p> <p>It is not clear that using the FFTF to destroy nuclear weapons material (plutonium) would be acceptable to the international community if, at the same time, the facility was producing another kind of nuclear weapons material (tritium).</p> <p><i>Recommendation:</i>            In discussing the use of the FFTF for a combined plutonium disposition and tritium production mission, DOE should acknowledge that there is a significant nonproliferation issue associated with such a course of action.</p>	3
4	Appendix D, p.D-2.	<p><b>Fast Flux Test Facility (FFTF).</b></p> <p>The appendix states "If it were determined that MOX fuel (rather than uranium-only fuel) were needed for the FFTF operations, the MOX fuel fabrication alternatives may be eliminated, depending on the amount of surplus plutonium that would be required for tritium production." however, it is our understanding that the capability to fabricate significant quantities of MOX fuel for the FFTF does not currently exist within DOE complex.</p> <p><i>Recommendation:</i>            DOE should acknowledge that the use of the FFTF with plutonium fuel in this manner would require the design and construction of a MOX fuel fabrication facility for the FFTF. It is the light water reactor irradiation of MOX fuel that might be eliminated by such a course of action.</p>	4

**MD177-3**

**DOE Policy**

As discussed in Appendix D of the SPD Draft EIS, DOE did consider FFTF in the *Storage and Disposition PEIS*, but it was eliminated from further study because it was in a standby status and it could not satisfy the criterion of completing the disposition mission within 25 years using the historic FFTF plutonium enrichment specifications. In December 1998, the Secretary of Energy decided that FFTF would not play a role in producing tritium.

**MD177-4**

**DOE Policy**

As discussed in Section 1.7.4, Appendix D was deleted because none of the proposals to restart FFTF currently consider the use of surplus plutonium as a fuel source.

No.	Location	Comment	
5	Sections 2.17 and 2.18.	<b>Hot cell examinations of irradiated lead assembly fuel.</b>	5
	Section 4.27.6	The environmental impacts in the draft EIS do not appear to include those impacts associated with hot cell examinations. In particular, there is no acknowledgement that the hot cell facilities would be responsible for the disposal of the spent nuclear fuel that results from destructive hot cell examinations.  <i>Recommendation:</i> DOE should revise the EIS to include these impacts, or note that such impacts are already included in other environmental evaluations.	
6	Section 5.1, 5.2 and 5.4.	<b>Preferred Alternatives. MOX Fuel Fabrication Alternatives. Lead Assembly Fabrication.</b>  Numerous times the number of lead assemblies referred to is 10. Based on scope and schedule for a lead assembly program it would be very unlikely that this number of full MOX lead assemblies could be fabricated.  <i>Recommendation:</i> If this is a bounding number of lead assemblies used for EIS basis, then it should be stated as such. It is misleading to indicate that 10 lead assemblies could be successfully fabricated based on our knowledge (or is there some information that we are not aware that established this number).	6

**MD177-5**

**Lead Assemblies**

The two DOE sites, ANL-W and ORNL, proposed for postirradiation examination conduct these types of activities on an ongoing basis. Impacts for activities associated with the postirradiation examination of lead assemblies are within the scope of existing NEPA documentation at these sites and are discussed, for limited resource areas, in Section 4.27.6. Spent fuel after postirradiation examination would be the responsibility of the DOE spent nuclear fuel program. As stated in the ROD for the *DOE Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Programs Final EIS* (DOE/EIS-0203-F, April 1995), interim storage for this type of spent fuel would take place at INEEL before eventual disposal in a geologic repository. As described in the revised Section 1.6, the preferred alternative for postirradiation examination is ORNL.

**MD177-6**

**Lead Assemblies**

The SPD Draft EIS assumed up to 10 lead assemblies as a bounding analysis based on DOE's extensive discussions with representatives from the commercial fuel industry. This SPD EIS was revised to evaluate two lead assemblies based on information from DCS, the team that was selected to provide MOX fuel fabrication and irradiation services, although it is possible that more than two would be required.

No.	Location	Comment	
7	Section 5.1	<p><b>Preferred Alternatives.</b></p> <p>DOE does not, at this time, have a preference for the location where lead assemblies for MOX fuel qualification would be fabricated.</p> <p><i>Recommendation:</i>                      The decision should be left up to the contractor where lead assembly fabrication will take place based on their technical evaluation at the preferred locations cited by DOE.</p>	7
8	Section 5.2	<p><b>MOX Fuel Fabrication Alternatives.</b></p> <p>Environmental critique that will be prepared, will it be available to Contractor for review prior to the issuance and basis for environmental synopsis?</p> <p><i>Recommendation:</i>                      Contractor should be able to review for accuracy and completeness prior to issuance.</p>	8
9	General	<p><b>SPD EIS Contractor</b></p> <p>Appendix B The SPD EIS includes a Appendix B - Contractor Nondisclosure Statement. In this appendix there is a signed statement that the contractor has no financial interest in the outcome of the project. Given the nature of the statement, it would more appropriately be called a disclosure (vs. nondisclosure) statement. Also, the identity of the SPD EIS support contractor does not appear to be provided anywhere in the SPD EIS, including Appendix B.</p> <p><i>Recommendations:</i>                      1. Rename Appendix B "Contractor Disclosure Statement."                      2. Identify the support contractor in Appendix B and in the cover section of the SPD EIS.</p>	9

Page 5

MD177

**MD177-7**

**Lead Assemblies**

As discussed in the revised Section 1.6, based on consideration of capabilities of the candidate sites and input from DCS on the MOX approach, DOE prefers LANL for lead assembly fabrication. LANL is preferred because it already has fuel fabrication facilities that would not require major modifications, and takes advantage of existing infrastructure and staff expertise. Additionally, the surplus plutonium dioxide that would be used to fabricate the lead assemblies would already be in inventory at the site. Section 2.17.2 describes the lead assembly fabrication siting alternatives, and Section 4.27 discusses the potential impacts of lead assembly activities. Decisions on lead assembly fabrication will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

**MD177-8**

**MOX RFP**

The Environmental Synopsis is a nonproprietary, publicly available summary of the Environmental Critique, which is an internal DOE procurement document subject to confidentiality requirements. Procurement analyses are not subject to review and approval by offerors.

**MD177-9**

**General SPD EIS and NEPA Process**

Per the commentor's recommendation, the title of Appendix B is now "Contractor Disclosure Statement," and the name of the contractor, Science Applications International Corporation, appears on the revised form.

**DUKE POWER COMPANY**  
**K. S. CANADY**  
**PAGE 1 OF 6**



Duke Power Company  
A Duke Energy Company  
Energy Center  
P.O. Box 1006  
Charlotte, NC 28201-1006

September 8, 1998

U. S. Department of Energy  
Office of Fissile Materials Disposition  
P.O. Box 23786  
Washington, DC 20026-3786

Subject: Surplus Plutonium Disposition Environmental Impact Statement

Dear Sir or Madam:

Thank you for the opportunity to comment on the draft Surplus Plutonium Disposition Environmental Impact Statement, as published in July 1998.

The attached comments are submitted on the behalf of Duke Power, a division of Duke Energy Corporation. Duke Power has proposed to provide four mission reactors for the disposition of surplus weapons plutonium as part of the DUKE COGEMA STONE & WEBSTER Team. The team members are Duke Engineering & Services; COGEMA; Stone & Webster; Framatome Cogema Fuels; Nuclear Fuel Services; and Virginia Power.

Duke Power's specific comments on the draft Surplus Plutonium Disposition Environmental Impact Statement are provided in the attachment to this letter. If you have any questions pertaining to these comments, please contact Mr. Steven Nesbit at (704) 382-2197.

Sincerely,

K. S. Canady, Manager  
Nuclear Engineering- NGD  
Duke Power Company

Attachment

SPN

MD165

**ATTACHMENT**

Duke Power Comments on the Department of Energy's (DOE's) Draft  
 Surplus Plutonium Disposition (SPD) Environmental Impact Statement (EIS)

No. Location Comment

1	Executive Summary, p. S-8	<p><b>Specification of "can-in-canister" immobilization as a preferred alternative.</b></p> <p>DOE is proposing "can-in-canister" immobilization as its preferred alternative for immobilization. However, the DOE's own reports<sup>1</sup> indicate that "can-in-canister" immobilization does not currently meet the Spent Fuel Standard for long-term nonproliferation resistance. The United States must deploy an effective, accepted plutonium disposition technology or technologies if it wants to encourage international support for plutonium disposition. Duke expects that concurrent action on the part of Russia to dispose of its surplus plutonium will be predicated on the disposition of United States material in a manner that provides high confidence in its resistance to theft, diversion, or re-use.</p> <p><i>Recommendations:</i></p> <ol style="list-style-type: none"> <li>DOE should consider only those alternatives that meet the Spent Fuel Standard [i.e., mixed oxide (MOX) fuel and homogeneous immobilization] as preferred alternatives.</li> <li>If DOE pursues deployment of "can-in-canister" immobilization, DOE should explain how it will demonstrate, in an open, objective, and peer-reviewed process, that the "can-in-canister" plutonium disposition approach will meet this fundamental program requirement - the Spent Fuel Standard.</li> </ol>
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<sup>1</sup> Sandia National Laboratories, SAND97-8203 - Proliferation Vulnerability Red Team Report, October 1996.

<sup>2</sup> U. S. Department of Energy, DOE/NN-0007 - Nonproliferation and Arms Control Assessment of Weapons-Usable Fissile Material Storage and Excess Plutonium Disposition Alternatives, January 1997.

MD165

**MD165-1**

**DOE Policy**

DOE acknowledges the commentor's concern regarding the ability of the immobilization approach to meet the Spent Fuel Standard. In the *Nonproliferation and Arms Control Assessment of Weapons-Usable Fissile Material Storage and Excess Plutonium Disposition Alternatives* (DOE/NN-0007, January 1997), DOE identified two potential liabilities of the immobilization alternatives relative to the Spent Fuel Standard. These liabilities involve ensuring sufficient radiation levels and providing removal-resistant can-in-canister designs. Since that time, DOE has modified the can support structure inside the canisters and has focused its research on the ceramic form of immobilization. As part of the form evaluation process, an independent panel of experts determined (*Letter Report of the Immobilization Technology Peer Review Panel*, from Matthew Bunn to Stephen Cochran, LLNL, August 21, 1997) that the can-in-canister design would meet the Spent Fuel Standard. In addition, NAS is currently conducting studies to confirm the ability of the ceramic can-in-canister immobilization approach to meet the Spent Fuel Standard. DOE is confident that immobilization remains a viable alternative for meeting the nonproliferation goals of the surplus plutonium disposition program.

No.	Location	Comment
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2	Executive Summary p. S-14.	<b>Quantities of plutonium considered in the EIS for disposal using the two approaches.</b>
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The draft EIS states, "Since the ROD was issued, however, DOE has determined that an additional 9 tonnes of low plutonium content materials would require additional processing and would, therefore, be unsuitable for MOX fuel fabrication." DOE alternatives include disposing of a maximum of 33 tonnes of plutonium as MOX fuel, while the alternatives include immobilizing 50 tonnes of surplus plutonium.

DOE has never provided justification that any surplus plutonium is not suitable for MOX use. The DOE has not explained what form this "unsuitable" plutonium is in. The technology descriptions in the draft EIS make it clear that various kinds of processing will be used in the Conversion and Immobilization Facility. It would appear to be possible that some of this processing would render material that is suitable for fabrication into MOX fuel. In addition, if a plutonium polishing step is included in the MOX fuel program, such a step may make more of the formerly "unsuitable" plutonium amenable for fabrication into MOX fuel. Finally, the DOE has specified no requirements that the plutonium destined for either MOX fuel or immobilization must satisfy. Therefore, it seems very unlikely that there is any technical basis for any decision about quantities of plutonium that are suitable or unsuitable for either option.

*Recommendation:*

Given the lack of justification for any decision about quantities of material for the two options, DOE should include the evaluation of a 100% (50 tonne) MOX fuel alternative in the SPD EIS. This is the only way to preserve all appropriate options until the time that the DOE can make a technically defensible evaluation and decision on the allocation of material to the two plutonium disposition approaches.

2

2

MD165

## MD165-2

## Feedstock

DOE reviewed the chemical and isotopic composition of the surplus plutonium and determined in the *Storage and Disposition PEIS* ROD that about 8 t (9 tons) of surplus plutonium were not suitable for use in making MOX fuel. Furthermore, DOE has identified an additional 9 t (10 tons) for a total of 17 t (19 tons) that have such a variety of chemical and isotopic compositions that it is more reasonable to immobilize these materials and avert the processing complexity that would be added if these materials were made into MOX fuel. The criteria used in this identification included the level of impurities, processing requirements, and the ability to meet the MOX fuel specifications. Section 2.2 includes a description of the forms of plutonium that would be used for MOX feed and immobilization feed, and the levels of impurities present in those materials. As discussed in this section, the plutonium destined for immobilization is mainly in the form of impure oxides, impure metals, plutonium alloys, uranium/plutonium oxide, and some alloyed reactor fuel. Impurities present include neptunium, thorium, and beryllium. None of the material planned for immobilization is in the form of spent fuel, and all of it is considered weapons usable. A further description of the types and amounts of plutonium currently planned for disposition can be found in *Feed Materials Planning Basis for Surplus Weapons-Usable Plutonium Disposition* (MD-0013, April 1997), which is available on the MD Web site at <http://www.doe-md.com>.

No.	Location	Comment	
3	Executive Summary, p. S-8. Appendix D.	<p><b>Fast Flux Test Facility (FFTF).</b></p> <p>It is not clear that using the FFTF to destroy nuclear weapons material (plutonium) would be acceptable to the international community if, at the same time, the facility was producing another kind of nuclear weapons material (tritium).</p> <p><i>Recommendation:</i> In discussing the use of the FFTF for a combined plutonium disposition and tritium production mission, DOE should acknowledge that there is a significant nonproliferation issue associated with such a course of action.</p>	3
4	Appendix D, p. D-2.	<p><b>Fast Flux Test Facility (FFTF).</b></p> <p>The appendix states "If it were determined that MOX fuel (rather than uranium-only fuel) were needed for the FFTF operations, the MOX fuel fabrication alternatives may be eliminated, depending on the amount of surplus plutonium that would be required for tritium production." However, it is our understanding that the capability to fabricate significant quantities of MOX fuel for the FFTF does not currently exist within the DOE complex.</p> <p><i>Recommendation:</i> DOE should acknowledge that use of the FFTF with plutonium fuel in this manner would require the design and construction of a MOX fuel fabrication facility for the FFTF fuel. It is the light water reactor irradiation of MOX fuel, not MOX fuel fabrication, that might be eliminated by such a course of action.</p>	4

**MD165-3**

**DOE Policy**

As discussed in Appendix D of the SPD Draft EIS, DOE did consider FFTF in the *Storage and Disposition PEIS*, but it was eliminated from further study because it was in a standby status and it could not satisfy the criterion of completing the disposition mission within 25 years using the historic FFTF plutonium enrichment specifications. In December 1998, the Secretary of Energy decided that FFTF would not play a role in producing tritium.

**MD165-4**

**DOE Policy**

As discussed in Section 1.7.4, Appendix D was deleted because none of the proposals to restart FFTF currently consider the use of surplus plutonium as a fuel source.

No.	Location	Comment	
5	Sections 2.17 and 2.18. Section 4.27.6.	<p><b>Hot cell examinations of irradiated lead assembly fuel.</b></p> <p>The environmental impacts in the draft EIS do not appear to include those impacts associated with hot cell examinations. In particular, there is no acknowledgment that the hot cell facilities would be responsible for the disposal of the spent nuclear fuel that results from destructive hot cell examinations.</p> <p><i>Recommendation:</i> DOE should revise the EIS to include these impacts, or note that such impacts are already included in other environmental evaluations.</p>	5
6	Executive Summary, p. S-27. Section 4.28.	<p><b>Spent Nuclear Fuel.</b></p> <p>The <i>Storage and Disposition EIS</i> and the draft SPD EIS overstate the impact of MOX fuel with respect to generating additional quantities of spent nuclear fuel. The assumption of minimum burnup (20,000 MWd/MTU) on MOX fuel is uneconomical and therefore inconsistent with the MOX fuel program that DOE has outlined through its Request for Proposal for MOX Fuel Fabrication and Irradiation Services. Additional quantities of spent fuel generated as a result of MOX fuel use should be very small.</p> <p><i>Recommendation:</i> DOE should revise the EIS to more accurately reflect these MOX fuel impacts.</p>	6

**MD165-5**

**Lead Assemblies**

The two DOE sites, ANL-W and ORNL, proposed for postirradiation examination conduct these types of activities on an ongoing basis. Impacts for activities associated with the postirradiation examination of lead assemblies are within the scope of existing NEPA documentation at these sites and are discussed, for limited resource areas, in Section 4.27.6. Spent fuel after postirradiation examination would be the responsibility of the DOE spent nuclear fuel program. As stated in the ROD for the *DOE Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Programs Final EIS* (DOE/EIS-0203-F, April 1995), interim storage for this type of spent fuel would take place at INEEL before eventual disposal in a geologic repository. As described in the revised Section 1.6, the preferred alternative for postirradiation examination is ORNL.

**MD165-6**

**MOX Approach**

DOE evaluated technical and environmental information provided during the procurement process to acquire MOX fuel fabrication and irradiation services and revised Section 4.28 accordingly.

<u>No.</u>	<u>Location</u>	<u>Comment</u>
7	General	<b>SPD EIS Contractor.</b>
	Appendix B	The SPD EIS includes a Appendix B - Contractor Nondisclosure Statement. In this appendix there is a signed statement that the contractor has no financial interest in the outcome of the project. Given the nature of the statement, it would more appropriately be called a disclosure (vs. nondisclosure) statement. Also, the identity of the SPD EIS support contractor does not appear to be provided anywhere in the SPD EIS, including Appendix B.
		<i>Recommendations:</i> 1. Rename Appendix B "Contractor Disclosure Statement." 2. Identify the support contractor in Appendix B and in the cover section of the SPD EIS.

7

5

MD165

**MD165-7**

**General SPD EIS and NEPA Process**

Per the commentor's recommendation, the title of Appendix B is now "Contractor Disclosure Statement," and the name of the contractor, Science Applications International Corporation, appears on the revised form.

Lisa Hamill  
Box 392  
Carrboro, NC 27510

Re: a sixty day extension of comment period

August 11, 1998  
via facsimile # 800-820-5156  
Office of Fissile Materials Management  
U.S. Department of Energy  
PO Box 23786  
Washington, D.C. 20026-3786

Dear Sir or Madam:

I write to request both a sixty-day extension of the public comment period and additional public hearings in North Carolina on the Draft Surplus Plutonium Disposition Environmental Impact Statement. I write also to support requests by other citizens' groups and individuals for additional public hearings in affected communities. The SPDEIS is the latest National Environmental Policy Act document that will help shape decisions on how to dispose of up to fifty metric tons of weapons usable plutonium that has been declared surplus to national security needs. Full public debate must occur now.

#### Extend the Public Comment Period for Sixty Days

The Department of Energy is allowing for a sixty-day comment period for people to review and provide comments on a large, complex document that references twenty-eight other related NEPA documents, an economic report that not released until July 28, 1998, and numerous Data Reports. The Data Reports are unavailable to people who are not near a Department of Energy Reading Room, yet contain crucial information. For example, on page J-4 of the Draft SPDEIS, DOE wrote that, "source term data for radiological releases, stack heights, and release locations are provided in the Data Reports for the pit conversion, immobilization, and MOX facilities." In other words, the Draft SPDEIS does not contain any data on something as basic as expected quantities of radioactive air pollutants.

#### Provide for Additional Public Hearings

The Department of Energy is planning only five public hearings, four in the communities closest to DOE sites being considered for new plutonium processing plants, and one regional meeting in a downstream community (Portland). This public hearings schedule will likely dilute the diversity of public comments; inhibit the involvement of downwind and downstream communities that generally bear liabilities without benefits; and skew the public opinion curve in favor of DOE proposals.

DOE should add the following hearings to its list:

1. Regional Hearings in Savannah, Georgia and Columbia, South Carolina. The Savannah River Site is the preferred candidate site for all three new plutonium processing facilities. Real impacts on the Savannah River from SRS operations and accidents are well documented, with the most notable being the December, 1991 tritium leak that quickly reached Savannah, Georgia. DOE cannot justify a lack of public hearings in Savannah or Columbia, which will bear the greatest

FD224

#### FD224-1

#### General SPD EIS and NEPA Process

DOE believes that the comment period allowed sufficient time for public review of the SPD Draft EIS. Although it did not extend the comment period, DOE did consider all comments received after the close of that period. All comments were given equal consideration and responded to.

DOE's descriptions of the affected environment and the potential environmental impacts in this SPD EIS are in accordance with 40 CFR 1502.15 and 40 CFR 1502.16. These descriptions are no longer than necessary for an understanding of the effects of the alternatives, and the analyses and data are commensurate with the significance of the impact, the less-important information being consolidated, summarized, or referenced. Resources such as the data reports are available in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

#### FD224-2

#### General SPD EIS and NEPA Process

It was not possible to hold hearings in all areas of the country; therefore, the hearings were restricted to locations where the greatest impacts of the proposed surplus plutonium disposition facilities could be expected. DOE did, however, provide various other means for public comment on this SPD EIS: mail, a toll-free telephone and fax line, and the MD Web site. During preparation of the *Storage and Disposition PEIS*, regional hearings were held in locations such as Boston, Chicago, San Francisco, and Denver. Denver was included because the PEIS dealt with the removal of materials from RFETS. DOE made, and is honoring, a commitment to get all plutonium out of RFETS. Additional hearings in Denver were not held because the proposed surplus plutonium disposition facilities would not be sited in the area. Shipment of MOX fuel to Canada for testing is under consideration as part of a separate EA, and is beyond the scope of this EIS. The *Environmental Assessment for the Parallax Project Fuel Manufacture and Shipment* (DOE/EA-1216, January 1999) and FONSI (August 1999) can be viewed on the MD Web site at <http://www.doe-md.com>.

liability from its proposals.

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2. Regional hearings in communities near nuclear reactor sites that are being proposed for irradiation of Mixed Oxide (MOX) fuel. Consortia of utilities and nuclear fuel fabricators are scheduled to submit Proposals for MOX Fuel Fabrication and Irradiation Services August 1998. We request that a public hearing be held in Raleigh and Charlotte, North Carolina, where reactor communities and the affected public are located.

DOE has stated that "environmental impact analysis relating to specific reactors will be included in the SPD Final EIS," although these analyses are scheduled to be made by Consortia in their Proposals. During the 1997 Scoping for the SPDEIS, DOE was repeatedly asked to involve nuclear reactor communities in the NEPA process, yet ignored these comments while moving forward on a process to select reactor sites that excludes community input. DOE cannot justify soliciting public comment for the site selection process for plutonium processing facilities, while excluding public involvement in selecting plutonium irradiation facilities.

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3. A regional hearing in Denver, Colorado. Denver is in proximity to Rocky Flats where approximately 25% of the surplus plutonium is in storage, so the area has a stake in the decisions being made. Furthermore, DOE has never held hearings to discuss plutonium immobilization of Rocky Flats plutonium as a reasonable alternative, and is proposing to weaken the requirements for shipping plutonium from Rocky Flats to Savannah River Site.

4. A regional hearing in Dallas, Texas. Dallas is likely to be in the transportation corridor for shipments of special nuclear materials and radioactive waste from new operations. The Department of Energy cannot legitimately claim that state-wide support exists in Texas for Pantex becoming a new DOE plutonium processing site without seeking input from outside the Amarillo area.

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5. A hearing in Washington D.C., where decisions are made, policy is formulated, and a substantial community of non-governmental organizations exists to monitor the Department of Energy, and where a larger community of organizations exists to monitor how taxpayer dollars are spent.

6. Port Huron, Michigan (or other location), the location of the border crossing for plutonium fuel shipments to Chalk River, Ontario to test in CANDU reactors. DOE is still considering the option of burning MOX fuel in CANDU reactors, yet has effectively excluded Canadian citizens from the process. The hearing could be a cooperative public event held with the Atomic Energy of Canada, Ltd.

The abundant uncertainties and recent changes in direction in the Department of Energy's hazardous plutonium disposition program indicates a continued need to subject Federal proposals to the highest and most rigorous levels of public debate possible. DOE has already failed to implement the easiest part of its plutonium storage and disposition program. At Pantex it has abandoned its new "safer" container and a proposed facility upgrade for plutonium pit storage. For Rocky Flats plutonium, it is already amending the "Record of Decision" for the "Storage and Disposition of Weapons-Usable Fissile Materials Final Programmatic Environmental Impact Statement" to "address the environmental impact of utilizing the K-Reactor facility for plutonium storage, the possibility that plutonium stabilization would be done at SRS instead of at RFETS, the shipment of plutonium to SRS before the AP3F storage vault is operational, the shipment of some materials from RFETS that are less than 50% plutonium, and the need to utilize direct metal casting in FB-Line to de-classify some of the RFETS." (Defense Nuclear Facilities Safety

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FD224

DOE actively sought public comments on the SPD Draft EIS and distributed approximately 1,700 copies of the document to all interested parties. All comments, regardless of how they were submitted, were given equal consideration and responded to.

#### FD224-3

#### General SPD EIS and NEPA Process

Regional public hearings on the nuclear reactor sites proposed for the irradiation of MOX fuel could not be conducted during the public comment period for the SPD Draft EIS, as no sites had been designated by that time. The SPD Final EIS was not issued until specific reactors had been identified and the public had an opportunity to comment on the reactor-specific information. As part of the procurement process, bidders were asked to provide environmental information to support their proposals. This information was analyzed in an Environmental Critique prepared for the DOE source selection board prior to award of the MOX fuel fabrication and irradiation services contract. DOE then prepared an Environmental Synopsis on the basis of the Environmental Critique, which was released to the public as Appendix P of the *Supplement to the SPD Draft EIS* in April 1999.

#### FD224-4

#### General SPD EIS and NEPA Process

Since the inception of the fissile materials disposition program, DOE has supported a vigorous public participation policy. It has conducted public hearings in excess of the minimum required by NEPA regulations to engender a high level of public dialogue on the program. The office has also provided the public with substantial information in the form of fact sheets, reports, exhibits, visual aids, and videos related to fissile materials disposition issues. It hosts frequent workshops, and senior staff members make presentations to local and national civic and social organizations on request. Additionally, various means of communication—mail, a toll-free telephone and fax line, and a Web site (<http://www.doe-md.com>)—have been provided to facilitate the public dialogue. It is DOE policy to encourage public input into these matters of national and international importance.

Board Weekly Report for Savannah River Site, June 26, 1998).

6

The National Environmental Policy Act requires Federal Agencies to insure that high quality "environmental information is available to public officials and citizens before decisions are made and before actions are taken", and that substantial and meaningful public involvement in the planning and decision process. By restricting public hearings to a few communities, DOE would be violating the spirit of NEPA.

1

Signed,

*Lisa Hamill*

Lisa Hamill

FD224

**FD224-5****Storage and Disposition PEIS and ROD**

DOE acknowledges the commentor's concern regarding the safe storage of plutonium pits at Pantex. DOE is committed to the safe, secure storage of pits and is evaluating options for upgrades to Pantex Zone 4 facilities to address plutonium storage requirements. DOE has addressed some of the commentor's concerns in an environmental review concerning the repackaging of Pantex pits into a more robust container. This evaluation is documented in the *Supplement Analysis for: Final Environmental Impact Statement for the Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Components—AL-R8 Sealed Insert Container* (August 1998). This document is on the MD Web site at <http://www.doe-md.com>. Based on this supplement analysis, the decision was made to repackage pits at Pantex into the AL-R8 sealed insert container and to discontinue plans to repackage pits into the AT-400A container.

**FD224-6****Storage and Disposition PEIS and ROD**

DOE conducted a supplement analysis for the early movement to and storage of the RFETS surplus plutonium in Building 105-K after modifications to enable safe, secure plutonium storage. Based on this analysis, DOE issued the amended ROD, referenced by the commentor, in the Federal Register (63 FR 43392) on August 13, 1998, in fulfillment of the letter and spirit of NEPA (40 CFR 1506.6(b)). The decision is contingent on a decision under this SPD EIS to locate an immobilization facility at SRS. A copy of the amended ROD and the supplement analysis is available in the DOE reading rooms and on the MD Web site at <http://www.doe-md.com>.