

9/16/98

Mr. Howard R. Canter, Director
Office of Isotopic Materials Disposition
U.S. Dept. of Energy
P.O. Box 23786
Washington DC. 20026-3786

Dear Mr. Canter,

I feel that the comment period on the SPD EIS was so short for a reason. It seems that the Dept. of Energy, along with other government people, have this plan on a very fast track and don't really want to hear what the rest of the country thinks about it.

Turning warhead plutonium into fuel pellets to be used in aging reactors is being presented as a way to recycle and disarm at the same time. The truth is that this process will also create nuclear waste. I agree that disarming is a good idea, but there has to be other options besides the two being presented, plutonium fuel pellets and glassification.

It would be prudent for the Dept. of Energy to spend some more time discovering other ways to safeguard our surplus nuclear weapons.

Sincerely,
Leslie MinerD

2714 Glossom St.
Columbia SC 29205

MD285

MD285-1

General SPD EIS and NEPA Process

A period of 60 days was allowed for public comment on the SPD Draft EIS, and DOE accepted comments submitted by various means: public hearings, mail, a toll-free telephone and fax line, and the MD Web site. Although it did not extend the comment period, DOE did consider, to the extent possible, comments received after the close of that period.

MD285-2

Alternatives

DOE acknowledges the commentor's support for reducing the nuclear weapons stockpile, and opposition to using either immobilization or the MOX approach to surplus plutonium disposition. DOE has extensively studied technologies for this purpose, and in the *Storage and Disposition PEIS* identified and evaluated a number of potentially acceptable technologies. However, many of these technologies were determined to be unacceptable for reasons of complexity, the cost or time for implementation, and the degree to which the resulting form met 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. Based on these analyses and other available information, the ROD for the *Storage and Disposition PEIS* reduced the number of technologies that would continue to be considered to those evaluated in this SPD EIS: immobilization in either a ceramic or glass form, and MOX fuel fabrication and irradiation. This SPD EIS evaluates the potential impacts of waste generation for each of the proposed alternatives. As described in Sections 2.18.3 and 4.28.2.8, additional spent fuel and other wastes would be produced by using MOX fuel instead of LEU fuel in domestic, commercial reactors. Spent fuel and waste management at the proposed reactor sites is not expected to change dramatically due to the substitution of MOX assemblies for some of the LEU assemblies. Likewise, the additional spent fuel would be a very small fraction of the total that would be managed at the potential geologic repository.

**United States
Department
of Energy**

Comment Form

NAME (Optional) Alice H. Manning
ADDRESS 40 Mendocino Blvd, Berkeley, California 94702
TELEPHONE (Std) 584-6610
FAX# _____

[illegible]

2. Construction and operation of a self-dependably/renewable power at Baidi, self-dependably renewable, the government, began clearing what the Department of Energy will have the entire work, in the form, the electricity, and a demonstration of self-dependable with the operation and was receiving. Location of the facility at 505 will not negatively affect the local area, what will and will be allowed at 505. Initial construction of renewable stage for the location of the self-dependably/renewable at 505

2. The same was a subject in the management of plutonium. AN was telling EFTS the degree of control it brought plutonium at the Utah-Idaho State Plant. It is going to get tighter in coming. A lot of plutonium is now going in high-burn units, so that the spent nuclear fuel, Stansfeld, today is more sought by plutonium national allowed to be sent to RSI, but other sought by plutonium national will require expensive processing and reprocessing.

SCD93

SCD93-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at SRS based on transportation concerns. As indicated in the revised Section 1.6, SRS is preferred for the pit conversion facility because the site has extensive experience with plutonium processing, and the pit conversion facility complements existing missions and takes advantage of existing infrastructure. As indicated in Section 2.18, no traffic fatalities from nonradiological accidents or LCFs from radiological exposures or vehicle emissions are expected. Decisions on the surplus plutonium disposition program at SRS will be based on environmental analyses (including analyses of transportation risks), technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

SCD93-2

Waste Management

Regardless of the site chosen, D&D would have to occur for the pit conversion facility at some time in the future and the process would be similar wherever the facility was located.

SCD93-3

Waste Management

The plutonium that is the subject of this SPD EIS is surplus weapons-usable plutonium that could be relatively easily used to build a nuclear weapon and must therefore be converted into a form that meets the Spent Fuel Standard. This weapons-usable plutonium is typically greater than 50 percent weight plutonium. 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 plutonium in the impure residues and scrub alloy (all of which contain less than 50 percent plutonium by weight) that are the subject of the *Final Environmental Impact Statement on Management of Certain Plutonium Residues and Scrub Alloy Stored at the Rocky Flats Environmental Technology Site* (DOE/EIS-0277F, August 1998) are not in the same form and present a lower proliferation risk.

DOE has determined that the waste management controls required for WIPP will provide adequate resistance to theft and diversion by unauthorized parties for the limited quantities of plutonium in RFETS residues (or any plutonium disposed with waste to WIPP). The waste management controls for the residues were evaluated to be consistent with international standards for physical protection of nuclear material within nations. In addition, the disposal of the residues avoids any processing that would increase material attractiveness.

DOE evaluated WIPP disposal during the screening of options for disposition of surplus weapons-usable plutonium. This is not a reasonable alternative because WIPP does not have sufficient capacity for the entire 50 t (55 ton) of material, and the option would not meet the Spent Fuel Standard for disposition of weapons-usable plutonium. The NAS report on plutonium disposition, *Management and Disposition of Excess Weapons Plutonium* (March 1994), concluded that direct geologic disposal of plutonium from weapons would not meet the Spent Fuel Standard.

My name is James Gallman, Sr.. I am President of the State of South Carolina Conference of Branches of the National Association for the Advancement of Colored People, more affectionately known as the State NAACP.

On behalf of the NAACP, allow me to express my support for the Pit Disassembly and Conversion mission at the Savannah River Site. The NAACP believes the existing infrastructure, experience, expertise, and previous plutonium accomplishments should be a major consideration in the Department of Energy locating the mission at SRS.

Also, it is my understanding that the DOE acknowledges that at least \$60 million can be saved if the mission is co-located with the Mixed Oxide Fuel Fabrication Plant and Immobilization at SRS. In fact, I understand that this is a conservative figure, which could be as high as \$75 million.

A year ago I served as the President of the Aiken Branch NAACP. The Branch passed a resolution regarding its support of SRS as the lead facility in plutonium management and disposition. Let me share that resolution with you. **READ RESOLUTION.**

As you can see by those present here today, the NAACP and the surrounding community fully supports the Savannah River Site and all the Plutonium Disposition Missions. This community support is unparalleled within the DOE complex.

Selecting SRS to receive the Pit Disassembly and Conversion is the right decision for SRS and our nation.

Thank you for allowing me this opportunity to speak to you for us and the many dedicated people of this community.

SCD47

SCD47-1

Alternatives

DOE acknowledges the commentor’s support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.



AIKEN BRANCH
National Association For The Advancement Of Colored People
P.O. Box 1516
Aiken, South Carolina 29802

RESOLUTION

WHEREAS the handling and disposition of excess weapons plutonium is of grave concern to the national security of the United States; and

WHEREAS plutonium disposition represents one of the most certain future missions of the Department of Energy for the next 20 to 30 years; and

WHEREAS the Department of Energy has decided to pursue a dual path for plutonium disposition and has named the Savannah River Site as a candidate site for both options; and

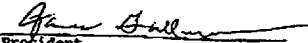
WHEREAS the Savannah River Site has produced approximately 40 percent of all United States weapons grade plutonium over the last 45 years and has safely handled plutonium in glovebox processing equipment with no adverse impact on workers, the public, or the environment; and

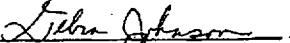
WHEREAS the Department of Energy in its Record of Decision recognizes the Savannah River Site as "a plutonium competent site with the modern, state-of-the-art storage and processing facilities ... with the only remaining large-scale chemical separation and processing capability in the DOE complex"; and

WHEREAS the regional community in the Central Savannah River Area (CSRA) of South Carolina and Georgia strongly supports continued plutonium missions for the Department of Energy's Savannah River Site;

NOW BE IT RESOLVED that the Aiken Branch of the National Association for the Advancement of Colored People (NAACP) strongly endorses major plutonium missions for the Savannah River Site and urges the Department of Energy to designate the Savannah River Site as its lead facility in plutonium management and disposition.

APPROVED this 27th day of March 1997 at Aiken, South Carolina by the Executive Board of the Aiken Branch NAACP.


President


Secretary

SCD47

RESOLUTION NO. 97-06
ENDORSEING MAJOR PLUTONIUM MISSIONS
FOR THE SAVANNAH RIVER SITE

WHEREAS, the handling and disposition of excess weapons plutonium is of grave concern to the national security of the United States; and

WHEREAS, plutonium disposition represents one of the most certain future missions of the U. S. Department of Energy for the next 20 to 30 years; and

WHEREAS, the Department of Energy has decided to pursue a dual path for plutonium disposition and has named the Savannah River Site as a candidate site for both options; and

WHEREAS, the Savannah River Site has produced approximately 40 percent of all U. S. weapons grade plutonium over the last 45 years and has safely handled plutonium in glovebox processing equipment with no adverse impact on workers, the public, or the environment; and

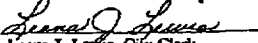
WHEREAS, the Department of Energy, in its Record of Decision, recognizes the Savannah River Site as "a plutonium competent site with the most modern, state-of-the-art storage and processing facilities...with the only remaining large-scale chemical separation and processing capability in the DOE complex"; and

WHEREAS, the City of North Augusta strongly supports continued plutonium missions for the Department of Energy's Savannah River Site.

NOW THEREFORE, BE IT RESOLVED by the Mayor and City Council in meeting duly assembled and by the authority thereof that the City of North Augusta strongly endorses major plutonium missions for the Savannah River Site and urges the Department of Energy to designate the Savannah River Site as its lead facility in plutonium management and disposition.

DONE, RATIFIED AND ADOPTED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH AUGUSTA, SOUTH CAROLINA, ON THIS 3rd DAY OF March, 1997.


Thomas W. Greene, Mayor

ATTEST:

Leona J. Lewis, City Clerk

SCD98

SCD98-1

Alternatives

DOE acknowledges the commentors' support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

REMARKS OF MAYOR LARK JONES AT THE PUBLIC HEARING
Concerning SRS New Missions/ Pit disassembly and conversion

On behalf of the City of North Augusta, I would like to make a few brief comments concerning the upcoming decision by the Dept. of Energy in locating the plutonium pit disassembly and conversion missions.

The City of North Augusta publicly supports and endorses the Savannah River Site as the logical choice for this endeavor. I would like to place in the record and make a part of my comments, Resolution 98-16 which was adopted by the Mayor and City Council on August 3, 1998.

(Resolution read into the record)

SRS is the logical choice for many reasons:

1. The site, its size, facilities and location is excellent. While, I am a lay person not involved with the site, I'm sure that its continued safe operation for over 40 years means there is a great deal of infrastructure already in place that may not need to be duplicated for these new missions. Environmentally and security wise, I believe the site to be in good order. I can only speculate that the use of the current site at SRS would result in a cost savings of millions of taxpayer dollars.
2. The workforce is highly skilled and ready to do the job. Aiken County probably has one of the highest numbers of engineers per capita of any county in the United States....many of whom are skilled in the nuclear industry. Even if new training is required, we have the base from which to start, as well as the educational facilities with which to assist in any such needed training.
3. Past Record. The past record of the Savannah River site as to both performance and safety are excellent. As Mayor of a city of over 16,000 persons, I'm called upon daily to make judgments that affect the lives of our citizens. Examining the record of persons and entities that our city deals with is one of the major criteria we use in decision making. I urge DOE to follow that same philosophy. If you do, I'm sure you'll like what you find.

SCD15

SCD15-1

Alternatives

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. DOE is appreciative of the public support it has received from the local communities at all of the candidate sites for the surplus plutonium disposition program.

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. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

4. Community Support. To be sure, SRS has been an integral part of our community for 45 years now. Yes, it does have a very important economic impact as well, but nowhere, I dare say will you find anymore community acceptance and support for any nuclear type industry than here in Aiken County.

As someone who is charged with being the guardian of the dollars of taxpayers, I am concerned with budgets and costs. This weekend, I will have two kids in private colleges, so costs will be even more important to me on a personal level. I understand the need for costs savings and cost effectiveness in the areas before us. It would then follow that the most cost effective method to accomplish those goals would be to consolidate all plutonium operations at the Savannah River Site including Mox fuels as well as Pit disassembly and conversion.

In summary, SRS has the facilities, the workforce, the track record and the necessary community support to do the job for this country! Finally, I do want to stress that we want to do the job for not North Augusta, not the CSRA, not South Carolina or Georgia but for our entire country.

This decision should be one based on merit, considering the factors of cost, workforce and facilities. It does not need to be a decision based upon politics, favors for one group or one sector or punishing of another.

Thank you.

RESOLUTION NO. 98-16
SUPPORTING THE PIT DISASSEMBLY AND CONVERSION MISSION
BEING LOCATED AT SAVANNAH RIVER SITE

WHEREAS, the Savannah River Site has demonstrated a continued strong leadership role in this nation's national security since the inception of the site; and

WHEREAS, the professional management team and employees of the Savannah River Site have the proven experience for continuing in this leadership role; and

WHEREAS, the Department of Energy has recognized the importance of and demonstrated their faith in the Savannah River Site by its decisions to locate the MOX and immobilization missions there; and

WHEREAS, the location of the third element of the plutonium disposition mission, pit disassembly and conversion, is now being reviewed by the Department of Energy; and

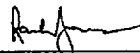
WHEREAS, the Savannah River Site is the only site being considered with the on site experience of processing plutonium and with the necessary infrastructure required for this critical mission.

NOW, THEREFORE BE IT RESOLVED by the Mayor and City Council in meeting duly assembled and by the authority thereof, and on behalf of the citizens of the City of North Augusta, that the Department of Energy is urged to select the Savannah River Site for its pit disassembly and conversion mission.

BE IT FURTHER RESOLVED that the citizens of North Augusta are encouraged to attend the Department of Energy's public meetings scheduled for Thursday, August 13, 1998 at 1:00 P.M. or 6:00 P.M. in the North Augusta Community Center and to voice their support for locating the pit disassembly and conversion mission at the Savannah River Site.

DONE, RATIFIED AND ADOPTED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH AUGUSTA, SOUTH CAROLINA, ON THIS 3rd DAY OF August, 1998.




Lark W. Jones, Mayor

ATTEST:

Leona J. Lewis, City Clerk

SCD15

Nuclear Information & Resource Service
Nuclear Control Institute
Public Citizen's Critical Mass Energy Project
Safe Energy Communication Council
Physicians for Social Responsibility
Global Resource Action Center for the Environment

FOR IMMEDIATE RELEASE
August 12, 1998
Contact: Michael Mariotte, Mary Olson (202)328-0002

ENVIRONMENTAL, ARMS CONTROL, PEACE AND JUSTICE AND ENERGY
GROUPS SAY "NIX MOX!"

NIRS to Comment at DOE Hearing in North Augusta, August 13, 1998

Non-Governmental Organizations representing taxpayers, the environmental community, energy consumers and those working to prevent nuclear proliferation stand in support of citizens in the Southeast who oppose the new proposals to make mixed oxide (MOX) plutonium fuel at the U.S. Department of Energy's (DOE) Savannah River Site (SRS). These organizations support the dismantlement of nuclear warheads and efforts to insure the plutonium from these weapons of mass destruction are secure and unavailable for use in future warheads.

This experimental conversion of nuclear warhead pits (plutonium-239) for use as fuel in nuclear power reactors fuel does not make sense. When compared to the one alternative that DOE has identified—the immobilization of the plutonium-MOX would:

- cost more taxpayer money
- involve more steps where plutonium will be vulnerable to diversion or theft
- involve more steps where waste will be generated
- require a greater level of purity of the plutonium, and therefore more processing
- result in more waste from processing, more worker exposures and would cost more
- require a redesign of power reactors that were not designed for plutonium fuel
- lower the already thin margin of safety in aging power reactors
- significantly increase potential radiological consequences of a major reactor accident
- establish plutonium as a commodity
- remove any credible basis for the US to criticize hybrid military/energy programs in other countries, leading to situations like India and Pakistan
- take longer to accomplish the original goal of making the plutonium from nuclear weapons dismantlement unavailable for use in another nuclear weapon.

"MOX does NOT get rid of plutonium," said Mary Olson of the Nuclear Information & Resource Service, "Reactors do not burn anything, they split atoms. As plutonium atoms

SCD27

SCD27-1

MOX Approach

DOE acknowledges the commentors' opposition to the MOX approach. 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 fabrication of MOX fuel and its use in commercial reactors has been accomplished in Western Europe. This experience would be used for disposition of the U.S. surplus plutonium.

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.

Safeguards would be in place to ensure that neither approach would be vulnerable to diversion or theft.

The hybrid approach would result in slightly more waste being generated and greater worker exposure than the immobilization-only approach, but potential impacts to the public during normal operations are not expected to be major at any of the DOE candidate sites. Furthermore, DOE continues to prefer the hybrid approach for the reasons of practicality and leadership discussed above.

Although the MOX approach would require a greater level of purity than the immobilization approach, impacts including exposures, were considered in the analyses. As described in Sections 2.18.3 and 4.28.2.8, additional spent fuel would be produced by using MOX fuel instead of LEU fuel in domestic, commercial reactors. Spent fuel at the proposed reactor sites is not expected to change dramatically due to the substitution of MOX assemblies for some of the LEU assemblies. Likewise, the additional spent fuel would be a very small fraction of the total that would be managed at the potential geologic repository.

Commercial reactors in the United States are capable of safely using MOX fuel. 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. In addition, NRC would evaluate license applications and monitor operations of domestic, commercial reactors selected to use MOX fuel to ensure adequate margins of safety. Section 4.28.2.5 was added to include an analysis of the increased risks associated with accidents involving MOX fuel at the proposed reactors.

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

DOE's *RFP for MOX Fuel Fabrication and Reactor Irradiation Services* (May 1998) is constructed to ensure that plutonium is not a marketed commodity.

The disposition of surplus plutonium is not a military action. The goal of the surplus plutonium disposition program is to reduce the threat of nuclear weapons proliferation worldwide by conducting disposition of surplus plutonium in the United States in an environmentally safe and timely manner.

Under either the immobilization-only approach or the hybrid approach, all 50 t (55 tons) of surplus plutonium would be processed out of the proposed plutonium disposition facilities over a 10- to 15-year period.

Operation of the proposed surplus plutonium disposition facilities is expected to take approximately the same amount of time for either approach. The difference in timing for the hybrid approach is associated with the amount of time that MOX fuel would be irradiated in domestic, commercial reactors. However, none of the proposed reactors are expected to operate longer under the hybrid approach than they would if they continued to use LEU fuel.

SCD27-2 MOX Approach

It is true that in the MOX approach only a fraction of the plutonium would actually be consumed in the reactor; but the remainder would be an integral part of massive spent fuel assemblies. The spent fuel assemblies would be so large and radioactive that any attempted theft of the material would require a dedicated team willing to suffer large doses of radiation, along with substantial equipment for accessing and removing the spent fuel from the storage facility and carrying it away.

Use of MOX fuel in domestic, commercial reactors is not proposed in order to subsidize the commercial nuclear power industry. 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.

are split in MOX fuel, new plutonium is being formed. The uranium present absorbs neutrons and creates new plutonium." She continued, "I think DOE's hidden agenda is to give nuclear utilities a direct taxpayer subsidy to keep their aging, uncompetitive nuclear reactors operating in the face of electric market deregulation. MOX is nothing more than nuclear welfare." Olson will be commenting for Nuclear Information and Resource Service at the DOE's public comment meeting in North Augusta on August 13, 1998.

2

Paul Leventhal, president of the Nuclear Control Institute, commented that "DOE's own studies show that direct disposal of warhead plutonium as waste would be cheaper, faster and safer than turning it into MOX fuel. Therefore we should not reverse 20 years of U.S. policy against the proliferation risks of plutonium fuel. A U.S. MOX program only encourages other nations, like Japan and Germany, to continue their dangerous efforts to commercialize plutonium."

3

"Burning 200 tons of plutonium in reactors adds about \$1.7 billion to the costs of safeguarding it by other methods", said economist William Weida of the Global Resource Action Center for the Environment. "There is currently no way to economically use plutonium as reactor fuel and to proceed with the MOX program would be an abuse of taxpayer funds."

4

"Commercial reactors do not need to burn MOX fuel, they need to be shut down or phased out," said Linda Pentz, Communications Director of the Safe Energy Communication Council. "Nuclear power has proven to be economically and environmentally hazardous. Burning MOX fuel is misleadingly promoted as a method of "disposing" of surplus plutonium from nuclear weapons. In fact it does nothing of the kind, but instead creates greater volumes of radioactive waste with no solution yet found for safe and perpetual storage."

5

"Joining the commercial and weapons arms of nuclear industry will hasten the demise of commercial nuclear power in the United States," said James Riccio of the Public Citizen Critical Mass Energy Project. "The MOX program reveals the true nature of commercial nuclear power. It was linked to the nuclear weapons project from the cradle and this will be its grave."

CONTACTS

Nuclear Information & Resource Service Mary Olson (202) 328-0002	Safe Energy Communication Council Linda Pentz (202) 483-8491
Nuclear Control Institute Edwin Lyman (202) 822-8444	Physicians for Social Responsibility Lisa Ledwidge (202) 898-0150 ex 222
Global Resource Action Center for the Environment Alice Slater (212) 726-9161	Public Citizen's Critical Mass Energy Project James Riccio (202) 546-4996

SCD27

SCD27-3

MOX Approach

By fabricating MOX fuel from surplus plutonium, the United States is not encouraging either domestic or foreign commercial use of plutonium. Consistent with the U.S. policy of discouraging the civilian use of plutonium, a MOX facility would be built and operated subject to the following strict conditions: construction would take place at a secure DOE site, it would be owned by the U.S. Government, operations would be limited exclusively to the disposition of surplus plutonium, and the MOX facility would be shut down at the completion of the surplus plutonium disposition program. For reactor irradiation, 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 with no reprocessing.

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.

SCD27-4

MOX Approach

The goal of the surplus plutonium disposition program is not simply safeguarding the plutonium indefinitely, but also dispositioning the plutonium in an environmentally safe, cost-effective, and timely manner. Converting the surplus plutonium into MOX fuel and using it in domestic, commercial reactors is an effective way to accomplish this.

Because cost issues are beyond the scope of this SPD EIS, this comment has been forwarded to the cost analysis team for consideration. As explained in response SCD27-1, the cost report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* 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.

SCD27-5

MOX Approach

This comment is addressed in responses SCD27-1 and SCD27-2.



R & H MAXXON, INC.

August 13, 1998

Mr. Howard R. Canter, Acting Director
Office of Fissile Materials Disposition
US Department of Energy
100 Independence Avenue
Washington, DC 20585

Dear Mr. Canter:

I am the co-owner of a local business with 52 retail outlets in South Carolina and Georgia. I am writing to express my support for the assignment of all three portions of the Surplus Plutonium Disposition mission to the Savannah River Site.

Former Secretary Pena stated and your Draft Environmental Impact Statement correctly concludes that Savannah River is the preferred alternative for the MOX fuel fabrication and immobilization portions of this important non-proliferation mission because of its staff expertise, plutonium infrastructure and exemplary safety performance. These same considerations hold true for the Pit Disassembly and Conversion Facility, and your decision should be to similarly assign this portion of the Surplus Plutonium Mission to Savannah River.

As a taxpayer, I expect this work to be performed in the safest, most reliable and cost-efficient manner. Savannah River has a record of performance and its safety record sets the standard for the rest of DOE. Savannah River also offers the assurance that the total program can be accomplished for the fewest taxpayer dollars. All of the plutonium infrastructure and staff expertise currently exist at Savannah River, and several hundreds of millions of dollars can be saved if they are not unnecessarily duplicated elsewhere.

The two state Central Savannah River Area has a long and supportive relationship with DOE. We welcome and support the Surplus Plutonium Disposition program because of its importance to international non-proliferation goals. Our support is also based on the knowledge that Savannah River can conduct this program to the highest levels of safety. The active support of the local communities will help assure that this important program can be conducted in the most expeditious manner.

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

Sincerely,

Tim Dangerfield
Vice-President

1307 E. Pine Log Road ▼ P. O. Box 1077 ▼ Aiken, SC 29802 ▼ (803) 648-0458 ▼ Fax (803) 648-4038

SCD45

SCD45-1

Alternatives

DOE acknowledges the commentator's support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure.

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. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.



Environmental Radiochemistry,
Radiochemical Characterization of
Waste Sites and Other Waste,
Analytical Process and Chemistry

H. Perry Holcomb, Ph. D.
1891 Green Forest Drive
North Augusta, SC 29841-2167
Telephone 803-279-4839
Fax 803-613-1854
Email pholcomb@home.fox.net

August 13, 1998

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

Re: Comment on the Surplus Plutonium Disposition (SPD) Draft Environmental Impact Statement (EIS)

Dear Ms. Holgate:

I attended the afternoon session of the public meeting that the DOE held in North Augusta, SC today regarding the SPD Draft EIS. Near the end of the afternoon session I made a presentation regarding the intrinsic worth of the plutonium being dispositioned by the DOE via this EIS. This letter to you serves to put these comments into a formal submission to the DOE.

I retired from the SRS two years ago after 36 years of service to du Pont and to Westinghouse, the prime contractors there. Twenty of those years were in analytical and separations chemistry support and development at SRTC; eleven and one-half were in F Area in technical support of separations activities, including programs involving the recovery of plutonium from CISMO scrap and scrub alloy from Rocky Flats; and the final four and one-half years were spent in support of environmental restoration activities primarily involving the radiochemical characterization of SRS waste sites and wastes therefrom.

Since retiring from WSRC, I have continued to serve as a radiochemical consultant for environmental restoration matters to SAIC, to Rust Environmental, and to Duke Engineering and Services, all SRS subcontractors.

My comments regarding the draft SPD EIS are twofold:

- I wholeheartedly support the SRS as the site to locate the pit disassembly and conversion mission. SRS has the infrastructure, the personnel, and the overwhelming support of the local public to make such a mission a success there. Needless to say, it would be most cost effective to locate the pit disassembly and conversion mission at SRS rather than at Pantex. And then DOE must ask itself the question, "Why contaminate another site in the complex with the plutonium waste that will result?" That is already a *fait accompli* at SRS. 1
- The DOE is charged with managing a national treasure in the 50 metric tons of surplus plutonium addressed by the draft EIS. I asked a question in today's 2

MD022

MD022-1

Alternatives

DOE acknowledges the commentator's support for siting the pit conversion facility at SRS. As indicated in the revised Section 1.6, SRS is preferred for the pit conversion facility because the site has extensive experience with plutonium processing, and the pit conversion facility complements existing missions and takes advantage of existing infrastructure. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

MD022-2

DOE Policy

DOE acknowledges the commentator's concern regarding the market value of surplus plutonium and agrees that there is an intrinsic worth to plutonium from its energy content. However, it is not valid to compare the fuel prices for plutonium versus fossil fuels because the costs to use the two fuels are very different. The real measure of the worth of plutonium as a fuel is its ability to generate electricity in the open market. These values are estimated in three reports, *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998), and the *Technical Summary Report for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0003, October 1996), all of which 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.

All of the surplus plutonium would not be made into MOX fuel because some of it is not suitable for fabrication due to the complexity, timing, and cost that would be involved in purifying the material. Also, 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

Ms. Laura Holgate
Director, Office of Fissile Materials Disposition, USDOE

Page 2

public meeting that no one present could answer, "Just how much is that 50 metric tons of plutonium worth?" I am somewhat appalled that DOE is even considering immobilizing part (17 metric tons) or all of this very valuable energy source. I would urge the DOE to not immobilize a single gram of the surplus plutonium that could eventually be used for MOX, even if pretreatment of the scrap might be necessary. My reasons follow.

The intrinsic value, energywise, of the 50 metric tons of plutonium should be made known to the public by DOE and should be included in the final EIS as public record. Nowhere have I seen this mentioned or brought forth in any analysis. So, please allow me to develop for you my very simple approach to placing a value on the surplus 50 metric tons of plutonium covered by the draft EIS.

The following data come from the web site of the Amarillo National Resource Center for Plutonium (the Center), <http://www.pu.org>:

- The energy in one metric ton (1000 kg, or 1000 g/kg X 1000 kg = 1E+06 grams of plutonium) is equivalent to that in:
 - 4 million metric tons of coal (or 1 gram Pu = 4 metric tons of coal), or
 - 15 million barrels of oil (or 1 gram Pu = 15 barrels of oil)
- The energy in one metric ton of plutonium can supply a year's worth of electricity to a population center of 790,000.

Now, developing from the foregoing facts as given by the Center:

- The energy in 50 metric tons of plutonium is therefore equivalent to:
 - 200 million metric tons of coal (50 X 4 million), or
 - 750 million barrels of oil (50 X 15 million).

Developing further:

- So, the intrinsic energy value of 50 metric tons of plutonium can be either:
 - **\$29.7 billion** (as derived from: 200 million metric tons of coal is 220 million short tons. The price of bituminous coal is \$135 per short ton, as quoted to me today by the Dixie Ice and Coal Company in Augusta, GA; or (220E+06 short tons X \$135/short ton = \$2.97E+10), or
 - **\$9.0 billion** (as derived from: 750 million barrels of oil X \$12/barrel = \$9.0E+09).

And:

- The energy equivalent of 50 metric tons of plutonium can supply the electric needs for 50 years to a city with the combined population (approximately 790,000) located in the South Carolina counties of Aiken, Charleston, and Greenville, according to the 1990 census.

MD022

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.

Ms. Laura Holgate
Director, Office of Fissile Materials Disposition, USDOE

Page 3

The DOE is charged with managing an extremely valuable energy resource in the surplus plutonium. The draft EIS states that 17 metric tons of plutonium is destined for immediate immobilization because of its waste form and/or quantity and nature of contaminants. I submit to you that SRS currently has most of the facilities and the personnel to possibly recover several metric tons of plutonium from these "scrap" forms and convert it into a useful energy source, MOX.

2

Each metric ton, so saved from permanent disposal and converted to MOX, is worth, at a minimum, the equivalent of 15 million barrels of oil. At a very conservative price of \$12/barrel for oil, each metric ton of plutonium so saved is worth \$180 million! Its worth, in terms of four million metric tons of bituminous coal, is \$594 million!!

I have not done any analysis regarding the environmental effects that would be caused by the burning of the 200 million metric tons of coal or the 750 million barrels of oil represented by the energy in the 50 metric tons of surplus plutonium. That is really outside my expertise. However, I would request that the DOE perform this evaluation and include the results in the final SPD EIS. Such additional information may overwhelmingly support converting as much of the surplus plutonium as possible into MOX.

3

I urge you to implement measures to save, and use for MOX, every possible gram of surplus plutonium. As a start, a technical task force should be established to evaluate such scrap recovery operations, which could take place at the SRS in F-Canyon and FB-Line and the other special processing operations associated with these SRS separations facilities. By reclaiming every metric ton of plutonium possible from the 17 metric tons of "scrap" plutonium, the DOE could not only save the American Taxpayers more than \$100 million but also could be very, very proud of such an extremely important recycling effort.

4

Thank you for the courtesy, attention, and interest shown by you and the other DOE staff to the attendees at the North Augusta meeting this afternoon.

Sincerely,

H. Perry Holcomb

H. Perry Holcomb, Ph. D.

MD022

MD022-3

General SPD EIS and NEPA Process

An analysis of the potential energy value of surplus plutonium was done as part of the *Storage and Disposition PEIS* (see Section 4.9). According to that analysis, MOX fuel use would likely have minor impacts on the environment and the nuclear fuel cycle industries.

The goal of the surplus plutonium disposition program is to reduce the threat of nuclear weapons proliferation worldwide by conducting disposition of surplus plutonium in the United States in an environmentally safe and timely manner. Converting the surplus plutonium into MOX fuel and using it in domestic, commercial reactors is an effective way to accomplish this. Consistent with the U.S. policy of discouraging the civilian use of plutonium, a MOX facility would be built and operated subject to the following strict conditions: construction would take place at a secure DOE site, it would be owned by the U.S. Government, operations would be limited exclusively to the disposition of surplus plutonium, and the MOX facility would be shut down at the completion of the surplus plutonium disposition program. For reactor irradiation, 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 with no reprocessing.

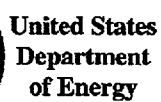
Obtaining energy from the surplus plutonium is a secondary consideration. It is not expected that the energy value of the surplus plutonium will be a consideration in the decision on the location of disposition facilities or the amount of plutonium (0 to 33 t [0 to 36 tons]) to be dispositioned as MOX fuel.

MD022-4

Alternatives

DOE has identified as its preferred alternative a hybrid approach of using both immobilization and MOX fuel fabrication to disposition up to 50 t (55 tons) of surplus plutonium. Under this alternative, approximately 33 t (36 tons) of clean plutonium metal and oxides would be used to fabricate MOX fuel, which would be irradiated in domestic, commercial reactors. The remaining 17 t (19 tons) of surplus, low-purity, nonpit plutonium is not suitable for fabrication into MOX fuel because of the complexity, timing, and cost that would be involved in purifying those plutonium materials. Finally, use of the

F-Canyon or FB-Line for conducting plutonium recovery operations in support of the plutonium disposition program as suggested by the commentor would extend their life beyond the timeframe that DOE currently intends to operate these facilities.



NAME: (Optional) Bill Randall
ADDRESS: 17 White Oak Dr N. Augusta, SC 29860
TELEPHONE: () _____
E-MAIL: _____

1

Facility Accidents

Appendixes K.4 and K.5 describe the potential accident impacts to a hypothetical maximum receptor at each respective site boundary. Although most accidents (and normal operations) were calculated to yield somewhat higher doses to this receptor at Pantex (due to the site boundary being closer to the release location, meteorology, etc.), the differences from a health risk standpoint were found to be quite minor in most cases. This assertion is illustrated when comparing cancer risk values given in Tables K-12, K-3, K-14, and K-25. DOE facilities are sited and designed in such a manner that significant protection is provided for the health and safety of the public.

As discussed in DOE Orders 420.1 and 6430.1a, there are a number of factors that are considered in the decisionmaking process for siting a facility within the DOE complex. These factors include topography, seismology, geology, hydrology, and radiological dose limiting criteria. No matter where a given facility is built, it must satisfactorily comply with all applicable guidance for the protection of worker and public health and safety.



**United States
Department
of Energy**

Comment Form

NAME: (Optional) R.E. RAOV
ADDRESS: 1639 HUNTERDALE DR, Aiken SC
TELEPHONE: (803) 649-3678
E-MAIL: THE FUTURE ENERGY REQUIREMENTS OF MY
COUNTRY MAKE THE CONVERSION OF EXCESS
PETROLEUM TO ENERGY PRODUCTION THE MOST
SUSTAINABLE MEANS OF PRODUCTION.

As much as economically possible of the excess P.U. should be converted to Mox. Immobilization should be a last resort.

SRS IS VERY SUITED TO PERFORM THIS MISSION.

SCD68

SCD68-1

MOX Approach

DOE acknowledges the commorator's support for the MOX approach. DOE has identified as its preferred alternative a 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. Under this approach, approximately 33 t (36 tons) of clean plutonium metal and oxides would be used to fabricate MOX fuel, which would be irradiated in domestic, commercial reactors. The remaining 17 t (19 tons) of surplus, low-purity, nonpit plutonium is not suitable for fabrication into MOX fuel because of the complexity, timing, and cost that would be involved in purifying those plutonium materials.

SCD68-2

Alternatives

DOE acknowledges the commentor's support for siting the MOX facility at SRS. As indicated in Section 1.6, SRS is preferred for the MOX facility because this activity complements existing missions and takes advantage of existing infrastructure and staff expertise. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Author: HOWARD CANTER at md-01
Date: 9/16/1998 5:52 PM
Priority: Normal
TO: DAVID MULLTON, BERT STEVENSON
Subject: Opposed to SC receiving Plutonium - Request Hearings
Dear Director Canter and Under Secretary Holgate,

As a former employee of the South Carolina Department of Health & Environmental Control's Nuclear Emergency Planning Section, I can tell you from experiencing the problem from the INSIDE, we as citizens of the beautiful state of South Carolina do not need nor want to be the repository of any more Plutonium or other nuclear substance. I would like to request that hearings be held in Columbia, SC.

The citizens of South Carolina deserve equal opportunity to understand and discuss and vote on this question, which has up-to-now been largely monopolized by the few with special interest (read: \$\$\$).

We do not need to be the dumping ground of the nation - no permanent site has been settled upon, so we'll probably wind up keeping it. We do not need to live under the multiple threats to our health and safety. We do not need to hold GENERATIONS of South Carolinians' lives - our descendants! - hostage.

Thank you for your help in this serious issue.

Sincerely,
Robert G. Ridgeway

1408 Cedar Terrace St.
Columbia, SC 29203

FD331

FD331-1

Alternatives

DOE acknowledges the commentor's opposition for siting the proposed surplus plutonium disposition facilities at SRS, and request to have public hearings in Columbia, South Carolina. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. Each of these facilities would process some fraction of the surplus plutonium so that it could be permanently disposed of in a potential geologic repository. Only the immobilized plutonium, in canisters of vitrified waste from DWPF, would be stored at SRS for any length of time, pending availability of the potential geologic repository. DOE is presently considering a replacement process for the in-tank precipitation (ITP) process at SRS. The ITP process was intended to separate soluble high-activity radionuclides (i.e., cesium, strontium, uranium, and plutonium) from liquid HLW before vitrifying the high-activity fraction of the waste in DWPF. The ITP process as presently configured cannot achieve production goals and safety requirements for processing HLW. Three alternative processes are being evaluated by DOE: ion exchange, small tank precipitation, and direct grout. DOE's preferred immobilization technology (can-in-canister) and immobilization site (SRS) are dependent upon DWPF providing vitrified HLW with sufficient radioactivity. DOE is confident that the technical solution will be available at SRS by using radioactive cesium from the ion exchange or small tank precipitation process. A supplemental EIS (DOE/EIS-0082-S2) on the operation of DWPF and associated ITP alternatives is being prepared.

This SPD EIS, for the purposes of analysis, assumes 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.

Comment Documents and Responses—South Carolina

During the comment period for this SPD EIS, July 17 through September 16, 1998, DOE hosted five public hearings that provided opportunities for oral and written comments from the public. These hearings, which were open to all individuals and organizations, included afternoon and evening hearings in the North Augusta Community Center in North Augusta, South Carolina.



United States
Department
of Energy

Comment Form

NAME (Optional): George C. (Geri) Rodriguez
ADDRESS: 1702 Highland Park Avenue, Aiken, SC 29801
TELEPHONE (Area): 803 668-5722
E-MAIL: geri@erdc.com

While the work force at SRS is very capable, not their
current mission. There are many personnel experienced in what
they have as capability in infrastructure or handling
or processing plutonium on the site. I think the potential for
metal component work. This includes both operations
and work as facility design and construction. But they would
have to shift from square one to build out a knowledge, skills
and experience both as well as build facilities. I think
one or "green" in 100% facilities. Symmetrical down
side is a high initial knowledge, experience, and
personnel needed to perform plutonium processing work
and as well as we have been doing this for forty five years.
We have facilities with all required by law infrastructure and
capability. It would be very cost effective to convert
these facilities to disassemble effort and process
all plutonium in them for disposition. It would be
save from any viewpoint to locate this mission
somewhere, except SRS. I think there are many times many
part of building plutonium experience in design, construction, and facility
design, construction and startup and
can support it.

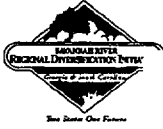
1

SCD61

SCD61-1

Alternatives

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.



SAVANNAH RIVER REGIONAL DIVERSIFICATION INITIATIVE
Aiken, South Carolina 29802, (803) 593-9964 ext. 1499 FAX (803) 593-4296

RESOLUTION

Whereas the handling and disposition of excess weapons plutonium is of grave concern to the national security of the United States; and

WHEREAS plutonium disposition represents one of the most certain future missions of The U.S. Department of Energy for the next 20 to 30 years; and

WHEREAS The Department of Energy has already chosen the Savannah River Site as the site for MOX Fuel Fabrication and Immobilization because of the Site's capabilities as DOE's only operating plutonium processing site; and

WHEREAS consolidating all three of the new plutonium disposition facilities, including the Pit Disassembly and Conversion Facility, at the Savannah River Site would save at least \$1.6 billion, compared to establishing and maintaining the required capabilities at other sites; and

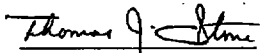
WHEREAS the Savannah River Site has produced approximately 40 percent of all U.S. weapons grade plutonium over the last 45 years and has safely handled plutonium in glovebox processing equipment with no adverse impact on workers, the public or the environment; and

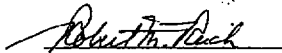
WHEREAS the Department of Energy in its Record of Decision recognizes the Savannah River Site as "a plutonium competent site with the most modern, state-of-the art storage and processing facilities...with the only remaining large-scale chemical separation and processing capability in the DOE complex"; and

WHEREAS the regional community in the Central Savannah River Area (CSRA) of South Carolina and Georgia strongly supports continued plutonium missions for the Department of Energy's Savannah River Site;

NOW BE IT RESOLVED that the Savannah River Regional Diversification Initiative (SRRDI) strongly endorses major plutonium missions for the Savannah River Site and urges the Department of Energy to designate the Savannah River Site as its lead facility in Mixed Oxide Fuel Fabrication, Immobilization, and Pit Disassembly and Conversion.

APPROVED this 13th day of August 1998 at Aiken, South Carolina, by the Savannah River Regional Diversification Initiative Board of Directors.


Thomas J. Stone
Chairman


Robert M. Reich
Secretary

SCD25

SCD25-1

Alternatives

DOE acknowledges the commentors' support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure.

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. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

August 13, 1998

PUBLIC HEARING -- PIT DISASSEMBLY & CONVERSION

Mr. Chairman:

I am Tom Greene, Chairman of the Savannah River Site Retiree Association. The Association is less than a year old and has already achieved a membership of over 500 retirees. We are growing at a very steady rate and we expect we will eventually represent the 2000 WSRC & BSRI retirees.

At our Board meeting on August 4, 1998 the Board voted unanimously to support the critical third element of the Department of Energy Plutonium Disposition Mission -- The Pit Disassembly and Conversion. The reasons for this strong support are:

1. First of all, it makes sense that all three missions be placed at one location such as Savannah River Site because SRS has the infrastructure and the expertise to effectively handle the mission.
2. Secondly, use of SRS for all three parts of the plutonium disposition mission would result in a cost savings of approximately \$1.6 Billion based on avoided costs of new structure and equipment that would be required at other DOE sites.
3. Third, the DOE has already expressed confidence in the SRS team by assigning two of the three missions to SRS -- the MOX and immobilization missions.
4. Fourth, SRS is better equipped and better experienced than Pantex to effectively handle all three missions.
5. Last and most importantly, I speak not only as chairman of the retiree organization but also as former Mayor of the City of North Augusta -- the citizens of our area continue to strongly support the Savannah River Site and its missions. We have worked hard in the past and are working hard now, to insure that in the future the SRS continues to be a strong economic engine in our area and continues to play a leadership role in the security of our Nation.

Thank You,

Tom Greene,
Chairman,
Savannah River Site Retiree Association(SRSRA)

SCD22

SCD22-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at SRS. As indicated in the revised Section 1.6, SRS is preferred for the pit conversion facility because the site has extensive experience with plutonium processing, and the pit conversion facility complements existing missions and takes advantage of existing infrastructure.

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. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

THANK YOU, MR. MODERATOR

MY NAME IS TIM MOORE AND I AM THE MAYOR OF SNELLING,
[REDACTED]

IN THIS CAPACITY AND FROM A PROFESSIONAL VIEW, I AM
EXTREMELY INTERESTED IN WHAT HAPPENS WITH THE SAVANNAH
RIVER SITE AND THE THOUSANDS OF FINE EMPLOYEES THAT WORK
THERE.

I AM NOT A NUCLEAR ENGINEER AND NOT AN EXPERT ON
PLUTONIUM, BUT I DO UNDERSTAND FINANCES. AND WHAT I HAVE
LEARNED OVER THE PAST FEW MONTHS IS THAT THE COST OF
LOCATING THIS MISSION ANYWHERE OTHER THAN THE SAVANNAH
RIVER SITE WOULD BE A DISSERVICE TO THE TAXPAYERS OF THIS
GREAT COUNTRY. YOUR OWN REPORTS AND STUDIES SHOW THE
CONSOLIDATION OF THE PLUTONIUM MISSION AT ONE SITE SAVES
MILLIONS AND MILLIONS OF DOLLARS. "

AND TO TRAIN ANOTHER WORKFORCE FROM ANOTHER LOCATION TO
DO WHAT THE SAVANNAH RIVER FOLKS ALREADY KNOW HOW TO DO

1

SCD41

SCD41-1

Alternatives

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

IS NOT VERY RESPONSIBLE.

I URGE YOU TO TAKE THE MESSAGE BACK TO THE DEPARTMENT OF
ENERGY IN WASHINGTON, THAT OUR COMMUNITIES SUPPORT THE
PLUTONIUM DISPOSITION MISSION BEING LOCATED AT THE
SAVANNAH RIVER SITE.

AND AS YOUR OWN RESEARCH SHOWS YOU, IT IS THE FINANCIALLY
RIGHT THING TO DO!!

THANK YOU.

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SCD41



State of South Carolina

Office of the Governor

DAVID M. BEASLEY
GOVERNOR

Post Office Box 11369
COLUMBIA 29211

May 5, 1998

The Honorable Federico Peña
Secretary of Energy
United States Department of Energy
1000 Independence Avenue
Washington, D.C. 20585

Dear Secretary Peña,

The State of South Carolina has long been a primary supporter of the Department of Energy's National Defense and Environmental Clean-Up Missions. It is my understanding that the Department is taking an "integrated" approach to addressing clean-up issues, and this will again require significant involvement from the State of South Carolina due to the extensive expertise, capabilities, and infrastructure available at the Savannah River Site (SRS).

While the dialogue on clean-up continues, I understand that the Department of Energy plans to announce the selection of preferred sites for the three components of the Plutonium Disposition Program and the nation's new source of tritium in the near future. In the midst of this decision making process, I feel it is very important that the Savannah River Site be strongly considered for all three components of the Plutonium Disposition Program (Plutonium Disassembly and Conversion, Mixed Oxide Fuel and Immobilization), and for the Accelerator to be selected as the nation's source of tritium.

I believe it is unwise to overlook the inherent savings that arise from integration of the plutonium missions at the Savannah River Site. No other Department of Energy facility has the experience and infrastructure needed to complete the disposition program in a timely and cost effective manner. It is my understanding that consolidation of this mission will significantly reduce the up-front capital investment in new facilities, and will reduce the overall cost of the program by over \$1 billion dollars. Therefore, I strongly support consolidating all three of the plutonium disposition facilities at the Savannah River Site.

Further, I feel that the selection and commitment to build the linear accelerator represents the Department's best option for supplying the nation's tritium demands. It is a clean technology that is the right choice for the environment. Also, the Accelerator Production of Tritium (APT) does

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SCD74

SCD74-1

Alternatives

DOE acknowledges the Governor's support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

SCD74-2

DOE Policy

Accelerator production of tritium is beyond the scope of this SPD EIS. It was analyzed in the *Final Programmatic Environmental Impact Statement for Tritium Supply and Recycling* (DOE/EIS-0161, October 1995). The Secretary of Energy announced in December 1998 that he selected TVA's Watts Bar and Sequoyah reactors as the preferred facilities for producing a future supply of tritium. Consistent with DOE's dual-track strategy for tritium production, the linear accelerator option was designated as a backup technology. DOE would complete key research and development milestones for the accelerator but would not complete construction.

SOUTH CAROLINA, OFFICE OF THE GOVERNOR
HONORABLE DAVID M. BEASLEY
PAGE 2 OF 2

Secretary Peltz
May 5, 1988

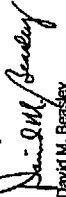
Page 2

not have the policy concerns that have been raised regarding the Commercial Light Water Reactor. With the APT, the clear historic separation of civilian and defense missions will be preserved. Further, it holds the promise of exciting new technology and with the new modular design, the cost is more than competitive with the cost of the proposed completion of a Tennessee Valley Authority reactor.

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The Savannah River Site is clearly the logical choice for these missions. I ask you to fully consider the consolidation of all the plutonium disposition activities at SRS and the selection of the APT as the nation's new tritium source. The awarding of these missions to SRS will clear the way for the State of South Carolina to continue its long-standing role as an active and supportive partner of the Department's national goals.

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Sincerely,

David M. Beasley

cc: Senator Strom Thurmond
Senator Fritz Hollings
Representative Floyd Spence
Representative Lindsey Graham
Representative Mark Sanford
Representative Bob Inglis
Representative Jim Clyburn
Representative John Spratt

SCD74-3
This comment has been forwarded to the Office of Commercial Light Water Reactor Production.

Alternatives

SCD74



State of South Carolina

Office of the Governor

DAVID M. BEASLEY
GOVERNOR

Post Office Box 11360
COLUMBIA 29211

June 18, 1987

To the Department of Energy and concerned citizens of the SRS Community:

Thank you for affording me the opportunity to comment on the proposed scope of the Surplus Plutonium Disposition Environmental Impact Study.

As most of you may already know, I had the opportunity to meet with the South Carolina Congressional Delegation in Washington several weeks ago. At that meeting, your elected representatives pledged to work towards securing new missions for the Savannah River Site (SRS), while ensuring a viable long term disposal plan. I have pledged to support this effort and stand ready to follow their leadership in protecting this federal reservation.

I regret that my schedule does not allow me to be with you in person, but if Congress and the Department of Energy decide to pursue this dual pathway for disposition, then I would request that SRS be fairly considered. With an online vitrification process, plutonium processing facilities, and over 40 years of experience and expertise in the field, plutonium disposition appears to be a mission that the Savannah River Site is uniquely qualified to perform.

Thank you for your time and attention.

Sincerely,

David M. Beasley
David M. Beasley

SCD75

SCD75-1

Alternatives

DOE acknowledges the Governor's support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.



State of South Carolina

Office of the Governor

DAVID M. BEASLEY
GOVERNOR

August 13, 1998

Ms. Laura Holgate
United States Department of Energy
Office of Fissile Materials Disposition
MD-4 Forestall Building
1000 Independence Avenue, SW
Washington, DC 20588

Dear Ms. Holgate,

I regret that my schedule does not allow me to be with you in person, but I appreciate the opportunity to comment on the Surplus Plutonium Disposition Draft Environmental Impact Statement.

I strongly endorse the Savannah River Site (SRS) for the entire surplus plutonium disposition mission. As you are well aware, the State of South Carolina has long been a patriotic partner of the department's national defense and environmental clean-up missions. This historical service to the nation has been exemplified by the site's commitment to excellence. It is this trademark quality that is so explicitly displayed in the Savannah River Site's selection as the preferred site for both the immobilization facility and the mixed-oxide fuel fabrication facility.

Given this acknowledgment by the department, the overall integrity of the mission should not be sacrificed by splintering the disposition of surplus plutonium. Consolidation of this mission at SRS will reduce the up-front capital investment in new facilities and life cycle costs by over one billion dollars. Further, there is no other site within the Department of Energy complex that can claim the expertise, infrastructure and citizenry support of over 40 years that are the hallmarks of the Savannah River Site Complex and community.

The Savannah River Site is the logical, financial and technical choice for the department's entire surplus plutonium disposition mission. It is the right choice for the Department of Energy and the nation. I am confident your analysis will compel the same conclusion.

Sincerely,


David M. Beasley

SCD14

SCD14-1

Alternatives

DOE acknowledges the Governor's support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure.

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. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Remarks by State Treasurer Richard Eckstrom
August 13, 1998 Environmental Impact Public Statement Hearing
North Augusta Community Center

My name is Richard Eckstrom, and I'm the treasurer of the State of South Carolina. --- I'm here today to voice my support for the Savannah River Site. --- I also want to talk about taxpayer issues --- regarding DOE's Plutonium Disposition Program.

SRS is the largest industrial employer in the State of South Carolina. --- It employs more than 14,000 people. --- Seventy percent of its workforce lives in South Carolina. --- The total economic impact of SRS to this area --- is approximately 2 billion dollars annually.

We're proud of the contribution that SRS has made to our national security through the years. --- Since the site began operating in the 1950s, it has been a major participant in our defense industry. --- From its inception, SRS has developed and maintained the highest levels of safety and consideration for its workforce, the public and our natural resources in this area.

SCD50

SCD50-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at SRS. DOE considers all the candidate sites suitable for disposition activities from a public acceptance, safety, and conduct of operations viewpoint. As indicated in the revised Section 1.6, SRS is preferred for the pit conversion facility because the site has extensive experience with plutonium processing, and the pit conversion facility complements existing missions and takes advantage of existing infrastructure.

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. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

We're proud that SRS is the only "truly operational site" remaining in the DOE Complex. ---- Hanford and Rocky Flats are strictly in clean-up modes, as they have been for several years. ---- The Pantex plant in Texas has never been anything but an assembly-and-dismantlement site.

We agree with DOE's assessment ---- just last year---- when it said that SRS is (quote) ---- "a plutonium competent site with the most state-of-the-art storage and processing facilities, and a site with the only remaining large-scale chemical separation and processing capability in the DOE complex." (end quote)

Pantex, which is now competing with SRS for the Pit Disassembly and Conversion mission, ---- has never processed plutonium ---- it has only stored it. I would remind you that Pantex has neither the experience ---- nor the necessary infrastructure ---- to do this work.

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Consider the following financial facts that emphatically support the selection of SRS for this mission:

First, unless SRS is chosen for the Pit Disassembly and Conversion work, the infrastructure that exists at SRS would have to be constructed at an alternate site ---- at a cost of hundreds of millions of dollars to the taxpayers of this country, ---- The failure to use the extensive human resources and experience at SRS ---- would only run up those costs. --- Did we not promise the taxpayers a "peace dividend?"

It makes no sense to not use what already exists at SRS.

Secondly, because the alternate site has never processed plutonium, --- a plutonium clean-up legacy doesn't exist at that site. ---- If plutonium processing is introduced at the alternate site, ---- another legacy will be created which will require significant taxpayer dollars to remediate. --- Because SRS has a history of plutonium processing, ---- we would expect incremental remediation costs to be minimal.

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3-657

From the taxpayers' perspective, --- the collocation of the nation's Plutonium Disposition missions at SRS will save the taxpayers hundreds of millions --- and possibly as much as a billion dollars. --- Again, did we not promise the taxpayers a "peace dividend?"

But there are more than financial considerations. --- A qualified workforce currently exists here at SRS. --- This qualified workforce is a community of people. --- These people have families.

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Through the years, this community and the state have invested in infrastructure --- to support these families. --- This community and the state have invested in law enforcement and fire services --- to protect these families. --- This community and the state have invested in hospitals, clinics, and emergency medical services --- to provide for their health needs. --- This community and the state have invested in elementary schools, middle schools, high schools, technical colleges, and university campuses --- to educate the children of these families.

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And why did this community and the state choose to make these permanent investments for the workforce of SRS? ---- Because back in the 50s, this community, and the state, and SRS joined together as strategic partners. --- And through the years, we have always viewed the well-being of the site's workforce, ---- and the well-being of the thousands-upon-thousands of their family members, ---- as our primary responsibility.

This community and the state have always enthusiastically supported SRS and its vital national security missions. --- And we have given SRS our consistent, unwavering support for the past five decades. --- No one else can come close to matching that. --- Thank you for your serious consideration --- and for the opportunity to speak here today. --- We stand ready, willing, and able ---- to continue to support the vital missions of SRS.

####



SOUTH CAROLINA
DEPARTMENT OF COMMERCE

David M. Beasley
Governor

August 10, 1998

Robert V. Royall
Secretary

Ms. Laura Holgate
United States Department of Energy
Office of Fissile Materials Disposition
MD-4 Forestall Building
1000 Independence Avenue, SW
Washington, DC 20580

Dear Ms. Holgate:

Thank you for this opportunity to comment on the Proposed Environmental Impact Statement for the Disposition of Surplus Weapons Grade Plutonium. I concur with Governor Beasley's endorsement of the Savannah River Site as the best site for the entire Surplus Plutonium Mission.

The workforce of the State and of the Savannah River Site Region has a demonstrated history of supporting the missions of the United States Department of Energy. As a result, over its more than forty year history, the SRS has become an important factor in both State and Regional economies.

Your Department should be proud of the workforce which you have assembled at SRS. These workers and their skills have been an enrichment for the region. With the assistance of your Department's Worker and Community Transition Program we have been successful in attracting private sector firms to the Region to re-employ many of the skills displaced by downsizing. The Plutonium Mission, coupled with these private sector initiatives, will help maintain this workforce and the body of science which it represents, an objective which I believe will be in the best interest of both the Nation and South Carolina.

Sincerely,


Robert V. Royall

mph

SCD08-1

Alternatives

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

This is Bret Bersie. I'm the Director of the South Carolina Progressive Network. It's a coalition of nearly 50 organizations across the state with a membership base of 63,000 people. We voted on Saturday, September 12, to request that the Department of Energy have additional public hearings in South Carolina on the plutonium disposition plan. The only hearing that's been held is one that held in North Augusta and the attendees at that hearing were 98 percent paid employees of the Savannah River Site who were given a paid, paid leave to attend the meeting and, and promote the option. There are many citizens in South Carolina that feel that they haven't been heard. Many citizens don't even know the questions going on and so we would, would request the additional hearings in at least Columbia, which is the capital of the state, and be given a month's notice before the hearing. My address is P.O. Box 8325, Columbia, South Carolina 29202. My phone number is (803) 808-3384.

I have an additional comment and that is that I recall when the Allied General Nuclear Services Plant was built at this, outside the Savannah River Plant to reprocess plutonium to make mixed oxide fuels twenty years ago. Jimmy Carter, when he was President, issued an executive order saying that mixed oxide fuels could not be used. Did that executive order wear out or has it been supplanted by something that I'm not aware of? See if you can answer that question for me. Thank you very much.

PD067

PD067-1

General SPD EIS and NEPA Process

DOE acknowledges the commentor's concerns regarding the public hearing. DOE employees and contractors at SRS were neither granted leave nor ordered to present their views at the North Augusta hearing; they attended in an official capacity or took personal leave to attend. DOE believes that the hearing was objective and open; all attendees were given an opportunity to provide comments orally or in writing. It was simply not feasible to hold public hearings in every location, including the locations suggested by the commentor.

To provide for public comment on the SPD Draft EIS, DOE conducted public hearings near the potentially affected DOE sites, and thus with the most directly affected populations. This decision did not preclude relevant comment by State and local government, tribes, individuals, and organizations. Approximately 1,700 copies of the SPD Draft EIS were mailed, and an NOA letter was mailed to an additional 5,500 members of the public. Several means were available for providing comments: public hearings, mail, a toll-free telephone and fax line, and the MD Web site. Equal consideration was given to all comments, regardless of how they were submitted.

PD067-2

Nonproliferation

The Allied General Nuclear Services Plant was constructed to recover plutonium and uranium from spent nuclear fuel. President Carter issued an Executive Order terminating the plant's reprocessing capability before construction was completed. Under the MOX approach, 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). Consistent with the U.S. policy of discouraging the civilian use of plutonium, a MOX facility would be built and operated subject to the following strict conditions: construction would take place at a secure DOE site, it would be owned by the U.S. Government, operations would be limited exclusively to the disposition of surplus plutonium, and the MOX facility would be shut down at the completion of the surplus plutonium disposition program. For reactor irradiation, 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 with no reprocessing.

Comments by T. Scott Beck
Member of the House of Representatives
State of South Carolina

DOE Draft EIS for Surplus Plutonium Disposition

August 13, 1998

SCD13

Thank you for providing me this chance to address an issue ... that's so important ... not only to our community ... but to our nation as well.

Let me also take this opportunity ... to formally welcome you ... to the 83rd legislative district of South Carolina.

We're a district comprised of many current ... and former site workers ... who have a keen understanding of the unique technical challenges ... involved in plutonium processing.

As one of those former employees myself ... who's worked at the site's primary plutonium processing facility ... I know this isn't work ... that can be done ... by just anyone ... or just anywhere.

Plutonium processing is highly specialized ... with unique contamination protection ... safety ... material accountability ... and waste management requirements ...

... much of it an infrastructure ... that already exists at Savannah River ...

... much of it requiring skills ... that already exist there as well.

It's a capability ... that you'd have to totally re-created somewhere else.

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SCD13

SCD13-1

Alternatives

DOE acknowledges the Representative's support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Beck -- Page 2

On top of that ... SRS is already listed as the preferred site for two thirds of the plutonium disposition mission.

Doesn't it make sense ... to locate all three plutonium plants together ... to take advantage of the cost benefits ... that are sure to be realized with shared facilities and staff?

Furthermore ... because plutonium processing carries with it ... extensive ... **and** expensive ... clean-up obligations ... why even consider placing it at a site -- unlike Savannah River -- where those obligations don't already exist?

In recent years ... I've been a student of the vagaries imperfections of the NEPA process.

I know ... that all too often ... final conclusions can be ... just about anything you want them to be.

In this case ... I hope you'll at least be consistent ...

And consider what I ... and many others here have said ... in light of your own findings ... in a similar EIS in 1996 ... for Stockpile Stewardship & Management.

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Beck – Page 3

In it ... you state:

“Plutonium would not be introduced into a site that does not currently have a plutonium infrastructure because of the high cost of new plutonium facilities and the complexity of introducing plutonium into sites without current plutonium capabilities.”

Many of my constituents ... and their co-workers at SRS ... have safely and responsibly ... met the plutonium processing needs of this nation ... for most of the last half of this century.

They’ve demonstrated their worthiness to take that mission ... into the next century as well.

Give them that chance.

Thank you.

I am Rudy Mason, South Carolina State Representative. I am here representing the Aiken County, South Carolina Delegation. This group of legislators has members from both parties and we may disagree on various issues; however, we are in unanimous agreement in our support of the Pit Disassembly and Conversion mission at the Savannah River Site.

As legislators we are aware that citizens expect their government to make wise fiscal decisions. Citizens demand that we evaluate the alternatives and then choose the one option that serves their best interest while spending the least amount of taxpayers dollars. This EIS hearing is about finding the best location for this critical plutonium disposition mission.

The Savannah River Site has a proven history of handling plutonium. In fact, DOE has previously acknowledged SRS's expertise; therefore, we must consider the financial aspect of this decision. DOE also has acknowledged that the integration of the plutonium missions at Savannah River Site will save taxpayers millions. Therefore, the decision that should come out these hearings is that the entire Plutonium Disposition, including Pit Disassembly and Conversion, should take place at SRS.

Once again, I would like to reintroduce into the record the resolution passed by our delegation in support of Plutonium Disposition Missions at SRS.

SCD97

SCD97-1

Alternatives

DOE acknowledges the Representative's support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure.

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. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

A RESOLUTION

Whereas, the handling and disposition of excess weapons plutonium is of grave concern to the national security of the United States; and

Whereas, plutonium disposition represents one of the most certain future missions of the Department of Energy for the next twenty to thirty years; and

Whereas, the Department of Energy has decided to pursue a dual path for plutonium disposition and has named the Savannah River Site as a candidate site for both options; and


Whereas, the Department of Energy's Surplus Fissile Materials Disposition Program will result in the production of qualified disposal forms and the eventual removal of these materials from the State of South Carolina; and

Whereas, the Savannah River Site has produced approximately forty percent of all United States weapons grade plutonium over the last forty-five years and has safely handled plutonium in glovebox processing equipment with no adverse impact on workers, the public, or the environment; and

Whereas, the Department of Energy in its Record of Decision recognizes the Savannah River Site as "a plutonium competent site with the most modern, state-of-the-art storage and processing facilities...with the only remaining large-scale chemical separation and processing capability in the DOE complex"; and

Whereas, the regional community in the Central Savannah River Area (CSRA) of South Carolina and Georgia strongly supports continued plutonium missions for the Department of Energy's Savannah River Site. Now, therefore,

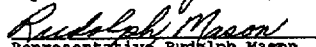
Be it resolved that the Aiken County, South Carolina Legislative Delegation strongly endorses major plutonium missions for the Savannah River Site and urges the Department of Energy to designate the Savannah River Site as its lead facility in plutonium management and disposition.


Representative Thomas Beck

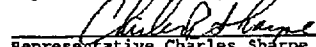

Representative Roland Smith


Representative William Clyburn


Senator Thomas Moore


Representative Rudolph Mason


Senator W. Greg Ryberg


Representative Charles Sharpe

SCD97

LAURA HUTTO

RS
FARM
GROWING
ARRESTED

BAMBERG

DOE EIS HEARING

AFTERNOON
GOOD MORNING AND WELCOME TO SOUTH CAROLINA. I AM BRAD HUTTO, STATE SENATOR, REPRESENTING TWO OF THE HOST COUNTIES FOR THE SAVANNAH RIVER SITE - BARNWELL AND ALLENDALE COUNTIES. I ALSO REPRESENT ORANGEBURG AND HAMPTON COUNTIES. MANY OF MY CONSTITUENTS FROM ALL FOUR COUNTIES WORK AT THE SITE. MANY DRIVE AN HOUR EACH DAY EACH WAY.

WE ARE PROUD OF OUR LONGSTANDING RELATIONSHIP WITH THE DEPARTMENT OF ENERGY. WE ARE PLEASED TO HAVE BEEN DESIGNATED AS THE PREFERRED SITE FOR MOX FUEL FABRICATION AND FOR ~~WASTE MANAGEMENT~~ IMMOBILIZATION AND WE ACTIVELY SEEK THE DESIGNATION AS THE PREFERRED SITE FOR

SCD42

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SCD42-1

Alternatives

DOE acknowledges the Senator's support for siting the pit conversion facility at SRS. As indicated in the revised Section 1.6, SRS is preferred for the pit conversion facility because the site has extensive experience with plutonium processing, and the pit conversion facility complements existing missions and takes advantage of existing infrastructure. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

PIT DISASSEMBLY AND CONVERSION.

CENTRAL THE WORKERS AND COMMUNITIES OF THE
SAVANNAH RIVER AREA ARE READY AND ABLE TO
ACCEPT THE CHALLENGES AND RESPONSIBILITIES
THAT WOULD ACCOMPANY ~~MULTIPLE MISSIONS~~
CONSOLIDATION OF
A FULL PLUTONIUM DISPOSITION MISSION. AT SRS.

AS YOU SEEK TO MAKE A DECISION ABOUT THE
LOCATION OF THE PIT DISASSEMBLY AND
CONVERSION ~~MULTIPLE~~ FACILITY, WE KNOW THAT YOU WILL
RECOGNIZE THAT THE SAVANNAH RIVER SITE

HAS ~~NO~~ MUCH OF THE NEEDED SUPPORT
INFRASTRUCTURE FOR SUCH A MISSION IN PLACE
WE HAVE AN EXPERIENCED AND DEDICATED
WORKFORCE WHO HAVE THE EDUCATION, TRAINING
AND ABILITY TO ~~CARRY OUT~~ ^{MAN A} THE PIT DISASSEMBLY
AND CONVERSION FACILITY.

SCD42

WE BELIEVE THAT THE LOCATION OF THE PIT
DISASSEMBLY AND CONVERSION PROJECT HERE
WILL GENERATE VAST SAVINGS TO THE COUNTRY.

SRS HAS
~~WE HAVE~~ THE TRADITION AND TRAINING
~~INDUSTRY~~ ^{NEW} ~~TO~~ SAFELY AND EFFICIENTLY HANDLE
THIS NEW MISSION. ^{OR TRACK RECORD OF SAFETY IS LIFETIME}
~~PROTECT THE~~ ^{SOUTH CAROLINA} PUBLIC, ENVIRONMENT
AND WORKERS.

OUR ^ CONGRESSIONAL DELEGATION HAS
PROVIDED US WITH STEADFAST AND UNWAVERING
SUPPORT IN WASHINGTON OVER THE MANY YEARS
OF OPERATIONS ~~HERE~~ AT THE SAVANNAH RIVER
SITE. THEIR CONTINUED UNYIELDING COMMITMENT
TO THE PEOPLE AND COMMUNITIES OF THIS AREA
SHOULD FURTHER DEMONSTRATE TO YOU THE
WARM RECEPTION AND HOSPITALITY THAT YOU CAN
EXPECT FOR ^{THE SITING OF} NEW MISSIONS HERE AND THE FULL
COOPERATION THAT YOU WILL RECEIVE IN MAKING

THE DECISION TO CONSOLIDATE ALL PLUTONIUM
DISPOSITION MISSIONS AT SRS.

FURTHERMORE, THE CITIZENS AND
COMMUNITIES THAT I REPRESENT ARE AS
COMMITTED AS WE ALWAYS HAVE BEEN TO DOING
OUR SHARE TO PROVIDE FOR OUR NATIONAL
SECURITY. WE ARE PROUD OF THE ROLE THAT
SAVANNAH RIVER SITE HAS PLAYED OVER THE

LAST
HALF
CENTURY

~~YEARS~~ IN THE DEFENSE OF OUR NATION AND


WE ARE READY TO CONTINUE THIS TRADITION OF
SERVICE TO OUR COUNTRY. AS WE APPROACH
THE NEW MILLENNIUM.

1

SCD42

W. GREG RYBERG
SENATOR, 1993-1997
EDUCATION, LABOR AND PROFESSIONS COMMITTEE

W. GREG RYBERG
P.O. BOX 1007
COLUMBIA, SC 29202
PHONE 803-732-4400
FAX 803-732-4400



COMMITTEES:
SENATE AND HOUSE
LABOR, EDUCATION, AND INDUSTRY
GENERAL
EDUCATION
BY THE HOUSE COMMITTEE

SENATE ADDRESS:
P.O. BOX 1007
COLUMBIA, SC 29202
PHONE 803-732-4400
FAX 803-732-4400

June 19, 1997

Mr. Howard Carter
U.S. Department of Energy
Office of Fissile Materials Disposition
MD-4 Forrestal Building
1000 Independence Avenue, SW
Washington, D.C. 20588

Dear Mr. Carter:

I appreciate the opportunity to express my support of the Savannah River Site (SRS) as the best and singular choice for the Department of Energy's Plutonium Disposition Mission. According to my understanding, currently, there are two options being considered for the handling and disposition of excess plutonium - mixed-oxide (MOX) fuel production and vitrification. Furthermore, I have been informed that SRS is the only location under consideration which has the capability to contribute in both methods of disposition.

Consolidation of all of the contemplated plutonium operations at one site appears to be not only the most cost-effective approach but also to be in the best interest of our Country. DOE's adopted strategy to consolidate operations as the complex was downsized is a good one. SRS currently has the infrastructure, layout, and specialized skills necessary to effectuate consolidation of and a smooth, cost-effective transition to DOE's new mission. It is also the only location that would not require extensive capital outlay to implement DOE's plans. Additionally, SRS's existing operation features numerous facilities which would enhance and complement these new missions.

SRS is the only site with the level of current expertise, experience and proven ability to safely handle these new missions. It is the only large-scale operating plutonium processing facility in the country. Its facilities have been extensively renovated and modernized and stand ready for duty. The proven people assets needed for plutonium missions already exist at SRS and need not be moved or developed elsewhere. Having lived within the community for 20 years, I would unequivocally say that the SRS employees are second to none. Through the ups and downs of the SRS employment cycle, the core competency of the Site has been integral to its success and to the vast community support. Bricks and mortar, canisters and glass logs, are only a portion of the SRS success equation. Our people and our community involvement are, I believe, the key to DOE's success. It is a fact that employees perform to their highest potential when they enjoy the support of their community.

SCD103

SCD103-1

Alternatives

DOE acknowledges the Senator's support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure.

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. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

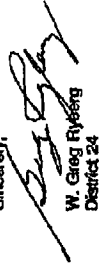
June 18, 1997
Mr. Howard Cantor
Page 2

Allen County and its surrounding communities wholeheartedly support SRS in its bid for new competitive missions and we believe we offer the lowest cost alternative to DOE while protecting the environment. The community's commitment to SRS has been actively demonstrated since it was first built in the early 1950's. I believe the level, breadth, and depth of support for this facility continues to be unprecedented. I regard this support as unparalleled by any other DOE facility within the complex.

In spite of the tremendous cut backs at SRS over the past four years, our community has stood steadfast behind the site and actively assisted SRS in its pursuit of new missions. This site, and its countless contractors and economic of schools, is not only the largest employer in our area, it is also an integral part of our community through the involvement of its operator, Westinghouse, in charitable and civic organizations and endeavors. Their commitment to getting involved and to giving back to our community has resulted in increased support for the site.

With concern for fiscal responsibility and accountability at all levels of government being the national outcry, along with competent people and community support being integral to the success of the Plutonium Mission, I steadfastly feel that SRS is the most logical choice for DOE's mission for Plutonium Disposition.

Sincerely,


W. Greg Ryberg
District 24

W. GREG RYBERG
SENATOR, ANSON AND LEXINGTON COUNTIES
SENATORIAL DISTRICT 24

HOME ADDRESS:
P. O. BOX 1077
ANSON, SC 29908
803/644-4382
FAX: (803) 648-4030



COMMITTEES:
CORRECTIONS AND PENITENTIARY
LABOR, COMMERCE AND INDUSTRY
GENERAL
TRANSPORTATION
STATE HOUSE COMMITTEE

SENATE ADDRESS:
P. O. BOX 142
GREENSBYTE, SENATE OFFICE BLDG.
COLUMBIA, SC 29202
(803) 225-6148
FAX: (803) 225-6299

August 13, 1998

Mr. Howard Canter
U.S. Department of Energy
Office of Fissile Materials Disposition
MD-4 Forrestal Building
1000 Independence Avenue, SW
Washington, D.C. 20588

Dear Mr. Canter:

I appreciate the opportunity to express my support of the Savannah River Site (SRS) as the best and singular choice for the Department of Energy's Surplus Plutonium Disposition Mission. As former Secretary Pena stated and your Draft Environmental Impact Statement correctly concludes, Savannah River is the preferred alternative for the MOX fuel fabrication and immobilization portions of this important non-proliferation mission because of its staff expertise, plutonium infrastructure and exemplary safety performance. These same considerations hold true for the Pit Disassembly and Conversion Facility, and your decision should be to similarly assign this portion of the Surplus Plutonium Mission to Savannah River.

Consolidation of all of the contemplated plutonium operations at one site appears to be not only the most cost-effective approach but also to be in the best interest of our Country. DOE's adopted strategy to consolidate operations as the complex was downsized is a good one. SRS currently has the infrastructure, layout, and specialized skills necessary to effectuate consolidation of and a smooth, cost-effective transition to DOE's new mission. It is also the only location that would not require extensive capital outlay to implement DOE's plans. Additionally, SRS's existing operation features numerous facilities which would enhance and complement these new missions.

SRS is the only site with the level of current expertise, experience and proven ability to safely handle these new missions. It is the only large-scale operating plutonium processing facility in the country. Its facilities have been extensively renovated and modernized and stand ready for duty. The proven people assets needed for plutonium missions already exist at SRS and need not be moved or developed elsewhere. Having lived within the community for 21 years, I would unequivocally say that the SRS employees are second to none. Through the ups and downs of the SRS employment cycle, the core competency of the Site has been integral to its success and to the vast community support. Bricks and mortar, canisters and glass logs, are only a portion of the SRS success equation. Our people and our community involvement are, I believe, the key to DOE's success. It is a fact that employees perform to their highest potential when they enjoy the support of their community.

SCD43

SCD43-1

Alternatives

DOE acknowledges the Senator's support for siting the pit conversion facility at SRS. As indicated in the revised Section 1.6, SRS is preferred for the pit conversion facility because the site has extensive experience with plutonium processing, and the pit conversion facility complements existing missions and takes advantage of existing infrastructure.

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. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

August 13, 1998

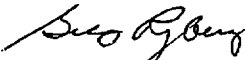
Mr. Howard Canter
Page 2

Aiken County and its surrounding communities wholeheartedly support SRS in its bid for new compatible missions and we believe we offer the lowest cost alternative to DOE while protecting the environment. The community's commitment to SRS has been actively demonstrated since it was first built in the early 1950's. I believe the level, breadth, and depth of support for this facility continues to be unprecedented. I regard this support as unparalleled by any other DOE facility within the complex.

In spite of the tremendous cut backs at SRS over the past few years, our community has stood steadfast behind the site and actively assisted SRS in its pursuit of new missions. This site, and its countless contractors and economic off shoots, is not only the largest employer in our area, it is also an integral part of our community through the involvement of its operator, Westinghouse, in charitable and civic organizations and endeavors. Their commitment to getting involved and to giving back to our community has resulted in increased support for the site.

With concern for fiscal responsibility and accountability at all levels of government being the national outcry, along with competent people and community support being integral to the success of the Plutonium Mission, I steadfastly feel that SRS is the most logical choice for the Pit Disassembly and Conversion Facility.

Sincerely,



W. Greg Ryberg
District 24

SCD43

ERDA
EDUCATION, RESEARCH AND DEVELOPMENT
ASSOCIATION OF GEORGIA UNIVERSITIES
800 Atlantic Drive
Atlanta, Georgia 30332-0425
(404) 864-3800 FAX (404) 864-8325

SCUREF
SOUTH CAROLINA UNIVERSITIES
RESEARCH AND EDUCATION FOUNDATION
Summ Truittwood Inverde
Clemson, South Carolina 29634-5701
(864) 656-1984 FAX (864) 656-0898

June 24, 1997

The Honorable Newt Gingrich
2428 Rayburn House Office Building
United States House of Representatives
Washington, DC 20515

Dear Mr. Speaker:

Since 1982, regional universities in South Carolina and Georgia have partnered with Westinghouse Savannah River Company and the Department of Energy at the Savannah River Site to expand the technical expertise and resources of the site to accomplish missions to solve problems, train employees and educate the public. We want these efforts to continue and to expand in the future. Your active support is needed now as new missions for SRS are being considered.

The two new mission areas are:

- Tritium Production for National Defense
- Surplus Nuclear Materials Disposition for National and International Security

SRS has existing experience and expertise as well as the required infrastructure to execute both of these missions in a safe and environmentally acceptable manner. These projects complement the successful environmental cleanup and remediation program at the site to which we are already contributing.

The Savannah River Site has been previously selected to be the site for future production of Tritium for our national defense program if required. Our institutions can assist by contributing to the basic science and technology research that would be needed to design and operate such a facility. Our institutions will also provide educational opportunities to create a cadre of operational and design engineers, scientists, environmental specialists and safety experts.

The material disposition mission would process and ultimately dispose of excess plutonium and highly enriched uranium, significantly reducing the risk of proliferation. Our universities fully support and are ready to partner with SRS to achieve this mission. Your support is essential. The leading research universities of South Carolina and Georgia are solidly behind the new missions, without which this region of Georgia and South Carolina will continue losing

ERDA Member Institutions: Clark Atlanta University, Emory University, Georgia Institute of Technology,
Georgia State University, Morehouse College of Georgia, University of Georgia
SCUREF Member Institutions: Clemson University, Medical University of South Carolina,
South Carolina State University, University of South Carolina

SCD80

SCD80-1

Alternatives

DOE acknowledges the commentors' support for tritium production and surplus plutonium disposition at SRS. Tritium production is beyond the scope of this SPD EIS, but is analyzed in the *Final Programmatic Environmental Impact Statement for Tritium Supply and Recycling* (DOE/EIS-0161, October 1995). As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. 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.



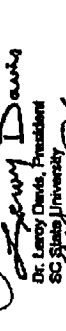

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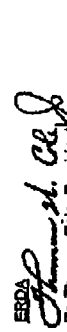
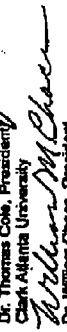
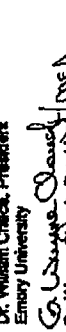
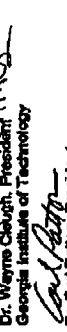

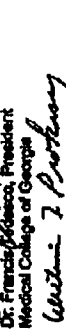
jobs and expertise at SRS. It is critical that we stabilize funding and employment at the SRS through Congressional support for the new missions.

1

Sincerely,

SCURRF


Dr. Constantine Curris, President
Clemson University

Dr. James Edwards, President
Medical University of South Carolina

Dr. Leroy Davis, President
SC State University

Dr. John Palmer, President
University of South Carolina

ERDA

Dr. Thomas Cole, President
Clark Atlanta University

Dr. William Chace, President
Emory University

Dr. Wayne South, President
Georgia Institute of Technology

Dr. Carl Patton, President
Georgia State University

Dr. Francis Hines, President
Medical College of Georgia

Dr. William F. Proctor, Acting President
University of Georgia


Distribution List:

The Honorable Mark Gagliardi
The Honorable Paul Coverdell
The Honorable Max Cleland
The Honorable Jack Kingston
The Honorable Sanford Bishop
The Honorable Michael "Mac" Collins
The Honorable Cynthia McQuerry
The Honorable John Lewis
The Honorable Bob Barr
The Honorable Suzzu Chambliss
The Honorable Nathan Deal
The Honorable Charles McLeod
The Honorable John Linder

The Honorable Strom Thurmond
The Honorable Ernest Hollings
The Honorable Mark Sanford
The Honorable Floyd Spence
The Honorable Lindsey Graham
The Honorable Bob Inglis
The Honorable John Spect
The Honorable James Clyburn
The Honorable David Bonior
The Honorable Zell Miller
Mr. Frederick Fenn

ERDA: University of South Carolina; Clemson University; Georgia Institute of Technology;
Georgia State University; Medical College of Georgia; University of Georgia;
Clark Atlanta University; Emory University; Georgia Institute of Technology;
SCURRF: University of South Carolina; Clemson University; Georgia Institute of Technology;
South Carolina State University; University of South Carolina

SCD80



SOUTHEAST ENVIRONMENTAL
MANAGEMENT ASSOCIATION

P.O. Box 5446 • Aiken, South Carolina • 29804
Phone and Fax (803) 648-9545

September 9, 1998
SEMA-98-009

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

Gentlemen:

The Southeast Environmental Management Association (SEMA) is a non-profit organization of environmental management professionals. We were formed in 1994 for the purpose of providing a forum for the exchange of technical and programmatic information pertaining to environmental restoration, waste management and minimization, and environmental compliance issues, as they pertain to public and private sector enterprises in the southeast United States.

SEMA offers public comment in response to the Surplus Plutonium Disposition (SPD) Draft Environmental Impact Statement (DEIS):

Having reviewed the alternatives presented in the SPD DEIS for the Pit Disassembly and Conversion Facility, the Mixed Oxide (MOX) Fuel Facility, and the Plutonium Immobilization Facility (PIF), it is apparent that the preferred site for each of these facilities should be the Savannah River Site (SRS) in Aiken, South Carolina. This preference is based on many compelling arguments presented in the EIS itself, such as:

- > SRS experience for almost 50 years in the safe handling, safe processing, and secure management of a full spectrum of plutonium products.
- > A highly developed and well-maintained infrastructure especially suited for each of these facilities.
- > Synergistic advantages to the co-location of the Pit Disassembly and Conversion Facility with the PIF and MOX facilities next to the Acidide Packaging and Storage Facility.
- > The large size of the SRS reservation (300 square miles) provides an additional buffer unavailable at other candidate sites (these facilities will be more than 6 miles from the nearest offsite individual).
- > A highly trained and effective workforce with many years of experience with plutonium materials and processes inclusive of the only DOE Plutonium Training Facility, and
- > A competitive cost advantage estimated as high as \$120 million which would demonstrate the DOE commitment to be responsible stewards of taxpayer dollars.

MD167

MD167-1

Alternatives

DOE acknowledges the commentator's support for siting the proposed surplus plutonium disposition facilities at SRS and appreciates the community support. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

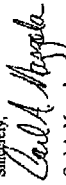
**SOUTHEAST ENVIRONMENTAL MANAGEMENT ASSOCIATION
CARL A. MAZZOLA
PAGE 2 OF 2**

US Department of Energy - Office of Fissile Materials Disposition
September 9, 1998
Page 2

Notwithstanding the aforementioned advantages, the greatest argument that can be made is the unwavering commitment of the CSRA people, governments, industries, and organizations, like SEMA, in support of existing and new DOE missions. This commitment should not be taken lightly, for it is based on years of working closely with DOE-SR in shouldering the heavy responsibility of safe, environmentally benign, and strategically important missions of providing nuclear materials for our nation's defense and in remedialing the legacy of the nuclear weapons complex.

Based on the decades of experience that the CSRA has had with SRS, we have full confidence that these new missions will be carried out safely and in an environmentally sound manner.

Sincerely,



Carl A. Mazzola
SEMA President, 1998

cc: The Honorable Lindsey Graham, US House of Representatives
The Honorable Greg Ryberg, South Carolina State Senate
Mr. Greg Rudy, Manager, US Department of Energy-Savannah River Site
Mr. Ambrose Schwallie, President, Westinghouse Savannah River Company
Mr. Mike Butler, Citizen for Nuclear Technology Awareness
Citizens Advisory Board, Savannah River Site

Savannah River Site
CITIZENS ADVISORY BOARD

Recommendation #1
July 28, 1998

Recommendation on the
Draft Surplus Plutonium Disposition
Environmental Impact Statement

Background

The Draft Surplus Plutonium Disposition (SPD) Environmental Impact Statement (EIS) identifies reasonable alternatives and potential environmental impacts for the proposed siting, construction, and operation of three facilities for plutonium disposition. After the Storage and Disposition of Weapons-Usable Fissile Materials programmatic EIS was completed, former Secretary of Energy Hazel O'Leary announced in January 1997 that DOE would pursue a dual track for plutonium disposition—immobilization and mixed oxide. The draft SPD EIS ties from the Storage and Disposition programmatic EIS.

The alternatives in the draft SPD EIS include three disposition facilities designed to collectively disposition up to 50 metric tons of surplus plutonium. A facility to disassemble and convert pits into plutonium oxide is proposed with SRS and Pantex designated as equally preferred sites. DOE also has announced that SRS is the preferred site for both the immobilization and MOX fuel fabrication facilities. The immobilization facility includes a collocated capability to convert non-pit plutonium materials into a form suitable for immobilization. The MOX facility will fabricate plutonium oxide into MOX fuel. The fuel would be used in existing commercial reactors in the United States.

Recommendation

The SRS CAB has reviewed the Draft SPD EIS in which DOE states SRS is the preferred location for immobilization and MOX and one of two locations for pit disassembly operations. Based on this information just released, the SRS CAB initially concurs with the DOE statement that SRS is a reasonable site for some or all of the proposed missions for the following reasons:

1. We support site integration activities when the selected sites are best able to perform those activities that are part of their core function.
2. Incremental risks presented in the draft summary appear to be minimal and acceptable.

Concerning pit disassembly activities, the SRS CAB asks DOE to consider that, should Pantex be chosen to conduct the pit conversion mission, this decision would create a new plutonium processing site within a system endeavoring to consolidate operations for cost effectiveness, but most importantly, would increase the amount of environmental cleanup that ultimately will be required. We also acknowledge that the missions would add economic benefit to the local community.

SRS CAB Recommendation #01
Adopted July 28, 1998

FD206

FD206-1

Alternatives

DOE acknowledges the commentator's support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. Decisions on the surplus plutonium disposition program at SRS will be based on environmental analyses (including risk analyses), technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

FD206-2

Alternatives

The existing infrastructure at Pantex is described in Section 3.4.11, and the impact of the proposed surplus plutonium disposition facilities on the infrastructure at Pantex is discussed in Section 4.26.3.6. This SPD EIS analyzes impacts to the environment due to construction and normal operation of the pit conversion facility. This facility would be located in a new building at either Pantex or SRS. The new building should have the same level of contamination regardless of the site and require the same amount of D&D work.

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.

COMMENTS FOR THE DOE PLUTONIUM DISPOSITION PUBLIC MEETING

Prepared by Dr. Constance J. Pritchard
President, The Pritchard Group
North Augusta, SC 29861
803-279-4175 (v)

My interest in speaking today is as a member of the North Augusta community. I am a small business owner who works with area businesses in a variety of training and consultative ways. I also serve on a number of Boards of Directors including Chambers of Commerce and Workforce Development. These roles, professionally and personally, have given me a chance to be knowledgeable about the Savannah River Site and its mission.

I speak for myself today, and I think that my comments also reflect those of a number of others in the community. As are many others here today, we are well acquainted with the quality, dedication, and professionalism of workers at the Savannah River Site. These individuals live near us, work in the community beside us, attend church with us, and share in the raising families here in the CSRA. We are proud of the safety record that SRS has, and support its ability to remain a productive facility.

We view the Savannah River Site as a provider with a long record of safety and efficiency in the production and disposal of nuclear materials and products. The workers at SRS have repeatedly demonstrated their competency and commitment to the safe production and disposal of nuclear products. Not only are the necessary levels of expertise available at SRS for plutonium disposition, the existing infrastructure will be a tax savings for us. As an employer and a tax payer, that consideration is a primary one for me.

Not only does SRS have the expertise of its employees, its leadership - world class partnerships - businesses that are best in class -- have formed ~~that~~ unite global technology. They bring the management, nuclear experience and knowledge, and technology to effect safe plutonium disposition. This partnership is working well, is cost effective, and serves to illustrate SRS's ability to adapt ~~and seek~~ to learn and improve.

I offer my support that the Savannah River Site be chosen for the DOE plutonium disposition mission.

e-mail: fulvalue@aol.com

SCD21

SCD21-1

Alternatives

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

SCD100-1 Other
DOE acknowledges the resolution that Bamberg and Edgefield Counties in South Carolina and Burke County in Georgia be included in the SRRDI service region.

RESOLUTION

WHEREAS, THE TRI-
LEGALLY RECOGNIZED REPRESENTATIVE OF THE MEMBER COUNTIES OF
ALLSANDALE, BAMBURG, AND BARNWELL IN SOUTH CAROLINA; AND

WHEREAS, THE DUTY OF THE ALLIANCE IS TO ASSIST IN THE
CREATION OF ECONOMIC DEVELOPMENT OPPORTUNITIES WITHIN THE
MEMBER COUNTIES; AND

WHEREAS, THE ALLIANCE HAS CREATED TO WORK ON BEHALF OF THE
MEMBER COUNTIES IN A UNITED AND MUTUALLY BENEFICIAL MANNER;
AND

WHEREAS, ANY JOB CREATION AND CAPITAL INVESTMENT IN A HOST
COUNTY ALSO BENEFITS THE OTHER MEMBER COUNTIES; AND

WHEREAS, SIXTY SIX PER CENT OF THE SAVANNAH RIVER SITE IS
LOCATED WITHIN THE BORDERS OF TWO OF THE MEMBER COUNTIES AND
MORE THAN 1400 EMPLOYEES OF THE SITE ARE RESIDENTS OF THE
MEMBER COUNTIES; AND

WHEREAS, THE MEMBER COUNTIES BELIEVE ANY ASSISTANCE DERIVED
FROM THE SAVANNAH RIVER SITE DURING THE DOWNSIZING OF THE
FACILITY TO ANY MEMBER COUNTY OF THE ALLIANCE WOULD BE
BENEFICIAL TO THE REGION; AND

WHEREAS, NO SPECIFIC CONGRESSIONAL MANDATE LIMITS THE
DEPARTMENT OF ENERGY'S ASSISTANCE TO THE EFFECTED AREA; AND

WHEREAS, THE COMMUNITY REUSE ORGANIZATION (CRO) CAN
RECOMMEND TO THE DEPARTMENT OF ENERGY MODIFICATIONS WITHIN
THE CHARTER OF THE SRRDI ORGANIZATION; AND

WHEREAS, THE TRI-
ORGANIZATIONS, THE ALLEN-BOGERTHALL PARTNERSHIP, THE METRO-
ANGUSIA CHAMBER OF COMMERCE, AND THE TRI-COUNTY ALLIANCE,
REPRESENT ADDITIONAL ADVISORY EFFECTED COUNTIES WITH LARGE
POPULATIONS OF SAVANNAH RIVER SITE EMPLOYEES BEYOND THOSE
RECOGNIZED BY THE DEPARTMENT OF ENERGY UNDER THE CURRENT
(CRO) STRUCTURE.

NOW, THEREFORE BE IT RESOLVED THAT THE BOARD OF DIRECTORS OF
THE TRI-COUNTY ALLIANCE DOES HEREBY SUPPORT AND RECOMMEND
THE ADDITION OF BAMBURG AND EDGEFIELD COUNTIES IN SOUTH
CAROLINA, AND BURKE COUNTY IN GEORGIA TO THE SRRDI SERVICE
REGION.

ADOPTED THIS THE THIRTIETH DAY OF JANUARY, 1997.

J. Calvin Melton
J. CALVIN MELTON, CHAIRMAN

SCD100

MR. MODERATOR, I ALSO WANT TO EXPRESS TO YOU AND THE
DEPARTMENT OF ENERGY, OUR DESIRE TO HAVE THE PLUTONIUM
DISPOSITION MISSION LOCATED AT THE SAVANNAH RIVER SITE.

I AM CALVIN MELTON, AND I AM CHAIRMAN OF THE TRI-COUNTY
ECONOMIC DEVELOPMENT ALLIANCE, REPRESENTING ALLENDALE,
BAMBERG, AND BARNWELL COUNTIES. *Chairman of SRRDI
Board - Representing three Counties in SC & 2 Counties in Georgia.*

AS YOU KNOW, OUR COMMUNITIES HAVE ALWAYS BEEN A GREAT
SUPPORTER OF THE DEPARTMENT'S MISSIONS AND WE HAVE
ATTENDED THESE PUBLIC HEARINGS NUMEROUS TIMES ON OTHER
ISSUES TO VOICE OUR SUPPORT.

THIS ONE SEEMS TO BE A LITTLE DIFFERENT, IN THE FACT THAT THIS
SHOULD BE A FAIRLY SIMPLE DECISION.

THE PREVIOUS SECRETARY HAS ALREADY ANNOUNCED THE
DEPARTMENT'S DESIRE TO HAVE THE SAVANNAH RIVER SITE
PERFORM THE VITRIFICATION PROCESS, AND HAS SELECTED THE
SITE TO BE THE HOME OF THE MOX FUEL PROGRAM.

SCD32

SCD32-1

Alternatives

DOE acknowledges the commentor's support for siting the proposed surplus
plutonium disposition facilities at SRS. As indicated in the revised Section 1.6,
SRS is preferred for the proposed facilities because the site has extensive
experience with plutonium processing, and these facilities complement existing
missions and take advantage of existing infrastructure. 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. DOE will announce its decisions regarding
facility siting and approach to surplus plutonium disposition in the
SPD EIS ROD.

THEREFORE, IT ONLY MAKES SENSE THAT THE PIT CONVERSION
PROCESS BE LOCATED AT THE SAVANNAH RIVER SITE AS WELL.

THE TRI-COUNTY ALLIANCE AND ITS MEMBERS, STRONGLY
ENCOURAGES YOU TO MAKE A DETERMINATION BASED ON THE
CAPABILITIES OF THE COMPETING SITES AND NOT ON POLITICS.

CONFIRM THE SAVANNAH RIVER SITE AS THE SITE OF CHOICE
FOR ALL THE PLUTONIUM MISSIONS, AND LET'S GET ON WITH
THE NATION'S BUSINESS.

THANK YOU.

SCD32

DOE Draft EIS for Surplus Plutonium Disposition
Thursday, August 13, 1998

Good afternoon, I'm Keith Benson, President and Chief
Professional Officer of the United Way of the CSRA.

Thank you for providing this opportunity to comment on
an issue that's so important to our region and to our friends and
neighbors at the Savannah River Site.

Many speakers today have addressed the technical and
political aspects of the decisions you are considering in order
to ultimately make the world a safer place for all of us to live.

It sounds like they've raised some very good points. But
I'm not a technical expert or a political scientist. I am,
however, an expert on the quality of life and the quality of
people, the people you have working at SRS.

I work with them on our Board of Directors, on the
governing bodies of our various member agencies and many
community projects. I've witnessed their talents in many other

1

SCD37

SCD37-1

Alternatives

DOE acknowledges the commentor's support for siting the proposed surplus
plutonium disposition facilities at SRS. As indicated in the revised Section 1.6,
SRS is preferred for the proposed facilities because the site has extensive
experience with plutonium processing, and these facilities complement existing
missions and take advantage of existing infrastructure. 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. DOE will announce its decisions regarding
facility siting and approach to surplus plutonium disposition in the
SPD EIS ROD.

aspects of our community. Our successes are due, in large measure, to them. And what I am certain of is that on top of their technical skills, on top of their unique capabilities, they are first and foremost quality people who take the safety and well-being of their neighbors to heart.

For 40 years, the men and women at the Savannah River Site have safely and responsibly supported, not only our nation's defense, but also the best interests and needs of their neighbors. Employees have donated millions of dollars and volunteer hours to improve quality of life. From what I've heard today, it's in the government's best interest to place the nation's plutonium disposition mission in the capable hands of our friends and neighbors at SRS. They've never disappointed me. I'm certain they won't disappoint you.

Thank you.

SCD37

3526 Boundbrook Lane
Columbia, SC 29206

September 16, 1998

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

I wish to comment on the *Surplus Plutonium Disposition Draft Environmental Impact Statement*.
1. The Savannah River Site is not, in my opinion, a suitable site for plutonium disposal due to the
unstable geologic conditions of the area. 1
2. Vitrification seems like a promising technology for immobilizing plutonium. 2
3. Any plan to reuse plutonium for energy generation (such as the MOX fuel) would seem ill-
advised. Due to the highly toxic nature of plutonium, any reuse would be present needless risk to
workers and the environment. If an enemy forced such exposure on our land and people, we
would consider it a hostile act. I strongly oppose any plan by our own government which could
increase the chance of accidental exposure to plutonium. 3

Respectfully submitted,
Meira (Maxine) Warshauer

FD322

FD322-1

Geology and Soils

DOE acknowledges the commentor's opposition to siting the proposed surplus plutonium disposition facilities at SRS due to unstable geologic conditions. Section 3.5.6.1 discusses the geologic conditions of the area, noting that no substantial geologic hazards or unstable soils exist at the site. Section 4.26.4.1 states that geology and soils would not appreciably affect, nor be affected by, the proposed facilities. Surplus plutonium would not be disposed of at SRS. 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.

FD322-2

Immobilization

DOE acknowledges commentor's support for the vitrification alternative of the immobilization approach to surplus plutonium disposition. Vitrification alternatives were evaluated in detail in the *Storage and Disposition PEIS*, which states that DOE would make a determination on the specific technology on the basis of this SPD EIS. This SPD EIS identifies the ceramic can-in-canister approach as the preferred immobilization technology. Section 4.29 provides a detailed comparison of immobilization technology impacts.

FD322-3

MOX Approach

DOE acknowledges the commentor's opposition to reusing plutonium for energy generation. The use of MOX fuel in domestic commercial reactors is not proposed in order to produce electricity. 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.

Consistent with the U.S. policy of discouraging the civilian use of plutonium, a MOX facility would be built and operated subject to the following strict conditions: construction would take place at a secure DOE site, it would be owned by the U.S. Government, operations would be limited exclusively to the disposition of surplus plutonium, and the MOX facility would be shut down at the completion of the surplus plutonium disposition program. For reactor irradiation, 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 with no reprocessing. Analyses provided in Section 2.18.3 and Chapter 4 of Volume I for the alternatives that include MOX fuel fabrication and irradiation show that potential environmental impacts would likely be minor.

Donald L. Speed, Senior Engineer
Westinghouse Savannah River Company
Building 730-1B, Room 2162
Aiken, SC 29808
W: (803) 952-9353
Fax: (803) 952-9350

facsimile transmittal

To:	Office of Finite Materials Disposition	From:	(800) 820-5156
From:	Donald L. Speed	Date:	09/16/98
Re:	Comments on SPD EIS Summary	Pages:	1
<input type="checkbox"/> Urgent <input checked="" type="checkbox"/> For Review <input type="checkbox"/> Please Comment <input type="checkbox"/> Please Reply <input type="checkbox"/> Please Recycle			

I attended the 8/13 evening meeting in North Augusta, SC. I was a little disappointed in that the meeting became a forum for public statement by an endless stream of politicians, though I assume you are accustomed to that by this time.

I primarily attended to hear technical comments, and there were few. One of the comments, however, piqued my interest because it centered on the question of purity in the MOX fuel. Before coming to SRS in 1990, I spent several years at LLNL as a systems engineer in the Atomic Vapor Laser Isotope Separation (AVLIS) program, primarily on the Pu side. Though the pilot plant for this program planned for NEEL was never built (it was a "peace dividend" after the Wall came down), the process itself was technically sound. In fact, I believe the uranium side of AVLIS is the source of USEC. My question is, has the AVLIS process been reviewed for possible use in the MOX program? After eight years at a site storing tens of millions of gallons of high level waste, I'd be encouraged to see at least one other alternative considered that doesn't involve complex, expensive-to-treat-and-dispose-of waste streams.

My other comment concerns a statement on page S-9 of the EIS Summary, which says "The construction of new facilities for the disposition of surplus US plutonium would not take place unless there is significant progress on plans for plutonium disposition in Russia." This is an admirable sentiment, and I fully concur, but what are the indicators to be used in this evaluation--parallel plant design and deployment? A signed treaty with the major states of the former USSR? Or is this simply a decision that will be made by the President or Congress when DOE is prepared to request the capital funds for design and construction?

I applaud the work you have done in exploring technologies for HEU/Pu disposition, as well as sorting through the siting alternatives. I also appreciate the opportunity to attend the public meeting, and to comment on this EIS. Thank you!

FD319

FD319-1

Other

Nearly all AVLIS research to date has focused on uranium isotope separation and enrichment rather than purification. The AVLIS technology might not be suitable for purification of plutonium. Considerable research and proof-of-concept demonstrations would be required prior to such an application. The cost and time required for deployment of the AVLIS technology for this application would also be significant. Due to the potentially long development time, high costs, and attendant technical uncertainties, application of the AVLIS technology for plutonium purification was not deemed a reasonable disposition option in this SPD EIS. Discussion of treatment options that were considered and the maturity of the various technologies can be found in the ROD for the *Storage and Disposition PEIS*.

FD319-2

Nonproliferation

The United States and Russia recently made progress in the management and disposition of plutonium. In late July 1998, Vice President Gore and Russian Prime Minister Sergei Kiriyenko signed a 5-year agreement to provide the scientific and technical basis for decisions concerning how surplus plutonium will be managed. This agreement enables the two countries to explore mutually acceptable strategies for safeguarding and dispositioning surplus plutonium. Accordingly, the U.S. Congress appropriated funding for a series of small-scale tests and demonstrations of plutonium disposition technologies jointly conducted by the United States and Russia. For fiscal year 1999 (starting October 1998), Congress further appropriated funding to assist Russia in design and construction of a plutonium conversion facility and a MOX fuel fabrication facility. This funding would not be expended until the presidents of both countries signed a new agreement. The United States does not currently plan to implement a unilateral program; however, it will retain the option to begin certain surplus plutonium disposition activities in order to encourage the Russians and set an international example.

FD319-3

General SPD EIS and NEPA Process

DOE acknowledges and appreciates the commentor's support for the surplus plutonium disposition program and the related public outreach activities.

Comment Documents and Responses--South Carolina

MRS HOLGATE: MR. NULTON HERE TODAY
MY NAME IS RICHARD TANSKY I AM ~~EMPLOYED~~
~~RESPONSIBLE FOR THE TRAINING PROGRAM AT SRS AS THE~~
~~FOR WESTINGHOUSE SAV. RIVER CO. AS THE~~ SITE TRAINING MGR
FOR WESTINGHOUSE
I UNDERSTAND THAT AT THE HEARINGS CONDUCTED
A PAST WEEK, THE ISSUE OF THE TRAINING
AND QUALIFICATION OF THE WORKFORCE WAS APPROPRIATELY
RAISED. WITHOUT FEELING THE NEED TO POINT OUT
THE IMPORTANCE OF THE QUALIFICATIONS AND COMPETENCE
OF THE WORKFORCE IN THE DECISION MAKING PROCESS.
I'D TO POINT TO A FEW OF THE REASONS WHY THE
~~WORKFORCE AT SRS IS BEST~~ TRAINING & QUALIFICATION
PROGRAM AT SRS SUPPORTS A DECISION TO
LOCATE THE P₁ PIT DISASSEMBLY & CONVERSION MISSION
AT SRS.

SCD09

SCD09-1

Alternatives

DOE acknowledges the commentor's views on SRS workforce qualifications and support for siting the pit conversion facility at SRS. As indicated in the revised Section 1.6, SRS is preferred for the pit conversion facility because the site has extensive experience with plutonium processing, and the pit conversion facility complements existing missions and takes advantage of existing infrastructure. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

~~WESTINGHOUSE SAVANNAH RIVER COMPANY~~
SRS has the best trained workforce in the Complex. ^{most qualified} SITE HAS STAFF ALREADY
CONDUCTED IN THE COMPLEX.
SRS has the only training programs accredited by the DOE Accrediting
Board and has 17 training programs accredited. ^{PROCESSES}

Training programs in Operations, RadCon, and Maintenance carry college
credit.

~~Training programs in Operations, RadCon, and Maintenance carry college credit.~~

Annual investment in Training at SRS is > \$40 million - 97% is directly
related to job qualification and safety. ^{ANNUAL INVESTMENT IN TRAINING FACILITIES}
SITE HAS OVER \$20 MILLION INVESTED IN TRAINING FACILITIES

Training Program effectiveness is continually evaluated through:
Formal Self Assessment Program
Faculty Evaluation Board audits of facilities

Training Oversight Committee - CHAIRMAN BY EVF
Other sites have adopted SRS training records system, procedures
manual, and many training courses.

SRS Integrated Safety Management System ensures a workforce competent
to carry out assignments safely.

SRS Training is exported to other DOE sites, commercial enterprises
(MCG), and internationally (Russia)

DNFSB obtains Radworker Training from SRS and has lauded our
aggressive training in creating and maintaining a culture of Disciplined
Operations.

DOE Spent Fuels Team trained by SRS in RWT, Respiratory,
and Asbestos prior to their trips to China, Russia, N. Korea, and
India

Intro

Fran Williams Vice President Environment, Safety, Health and Quality Assurance Division

- Provide oversight for Westinghouse to ensure our operations protect the safety and health of our employees and the public and that our operations are in compliance with state, federal, and DOE requirements in industrial safety, radiation and contamination control, environmental and health surveillance.

SCD34

Safety

- HISTORICALLY 1992-1996 Injury and Illness ranking of DOE Production Contractors prove WSRC is the best
 - » Lost Workday Case Rates for WSRC 0.3, Pantex 2.8 and DOE average was 1.0
 - » Total Recordable Case Rates for WSRC 0.7, Pantex 5.1 and DOE average 8.1
 - » Cases per 200,000 hours
- RECENTLY 1/97-9/97 Injury and Illness ranking of DOE Production Contractors prove WSRC is the best
 - » Lost Workday Case Rates WSRC 0.5, Pantex 2.4 and DOE Average 1.1
 - » Total Recordable Case Rates WSRC 1.1, Pantex 4.1 and DOE Average 7.4
- SRS has an outstanding Lost Work-Time Injury Record
 - Construction Workers earned the Westinghouse President's Award for working more than 2.5 MILLION hours without a lost-time injury
 - Operations recently reached the 3.8 MILLION hours mark without a lost-time injury
- Worker's Comp costs are 6 times LOWER than industry
- 1/97-9/97 Cost Index Ranking of DOE Production Contracts once again prove WSRC is the safest site in the complex
 - » WSRC 3.08, Pantex 28.85, and DOE average 14.4
 - » Coefficients should not be advertised as dollar figures - only as appropriate weighting factors
 - » Coefficients derived from study of direct and indirect dollar costs of injuries
 - » Index is approximately equal to cents lost per hour worked
- National Safety Council stated SRS level of employee participation is "incredible and an indication of a strong safety culture"
 - SRS responses ranked in the 89th percentile of the National Safety Council data base
 - » Only 11 of 100 companies scored higher

SCD34

SCD34-1

Other

DOE acknowledges the commentor's views on the positive attributes of SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

RadCon

- Historically SRS has been viewed as having the best RadCon Program in the DOE Complex
 - SRS supported Pantex in early 90s by lending technical assistance in directing cleanup and RadCon monitoring for TRITIUM releases
- Our employee surveillance programs are in place ON SITE and they exceed DOE requirements
 - Our State-of-the-Art Radiation Instrument Calibration Facility is a model for the DOE Complex
 - We also have a NEW Whole Body Count facility
 - External Dosimetry is DOELAP accredited
 - Bioassay program and Whole Body Count evaluation is in lock step for DOELAP accreditation
 - Nationally recognized expertise in both internal and external dosimetry
- SRS has the ONLY accredited RadCon Training Program in the DOE Complex
- SRS continuously strives to improve the programs to protect worker safety and health
 - Average Worker Dose (mrem/person) decreased 50% in last 10 years
 - » Better work planning, ALARA program (and scope reductions)
 - Intakes decreased by 67% over last 6 years
 - » Enhanced work planning and expansive RadCon job coverage
 - Personal Contaminations decreased 99% over last 10 years
 - » Engineering controls and rollbacks
- Medical Department consists of 9 physicians, 18 nurses and 5 facilities spread ACROSS the site to service our employees
 - Medical covers surveillance for radiological contamination, toxic and chemical exposure, injuries and illnesses, routine wellness programs and substance abuse testing.

SCD34

Environmental

- Largest DOE weapons site and second in the complex (WIPP 1st) to earn ISO 14001 certification.
- Met ALL environmental regulatory requirements in 1997
- Exceeded Goal of 98% Compliance with NPDES regulations by 1.9%
- SRS NEPA Team earned the National Association of Environmental Professionals Presidential Award of Excellence for NEPA/CERCLA Guidance
- Several SRS employees are working on ANSI standards development and regulation writing committees AT THE REQUEST of our regulators
 - WSRC expertise is valued based on our proven track record
- Another example of our regulator’s confidence in WSRC is the fact that DHEC has granted WSRC permission to permit ourselves for drinking water, erosion control plans and for small volume waste waters

1

SCD34



United States
Department
of Energy
Comment Form

NAME: (Optional) DAVID WILLIAMS
ADDRESS: 177 ROLLING ROCK RD., Aiken, SC 29803
TELEPHONE: (803) 699-0121
E-MAIL: _____
CONTRIBUTIONS TO DOE ON PERFORMING A THOROUGH INVESTIGATION
INTO THE RISKS OF COLLAPSE REGARDING SELECTION OF THE
BEST SITE FOR DISPOSAL OF OLD WAR PLUTONIUM STOCK PILES.

SRS SHOULD BE THE SITE CHOSEN BASED ON MERIT, TRUCK REPAIR
DE SHEETY + AN RIGHT MIX OF TECHNICAL SUPPORT FROM IT'S
WORK FORCE + DIVERSITY + EMPHASIS THE CHOICE FOR SRS IS
THE CHOICE OF COST COMES TO THE CITIZENS OF THIS COUNTRY
AND THE RISK OF COST THAT THE BUSINESS ENTERS IN THIS
COMMUNITY.

David Williams

SCD71

SCD71-1 **Alternatives**
DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.



United States
Department
of Energy

Comment Form

NAME: (Optional) George Zachmann
ADDRESS: _____
TELEPHONE: (803) 952-4851
E-MAIL: _____

I feel that WSEC has proven itself as a safe and disciplined facility at which several stabilization missions have been successfully completed. It not only makes sense to perform Pu disposition mission at WSEC. The highly skilled technical workforce understands Conduct of Operations standards while meeting integrated schedules. I feel the Pu Disassembly and Conversion and MOX Fuel fabrication should be performed at WSEC.

1

SCD60

SCD60-1

Alternatives

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. 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. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.



STATE OF TENNESSEE

DON SUNDGUST
Governor

September 16, 1998

Mr. G. Bert Stevenson, NEPA Compliance Officer
Office of Fissile Materials Disposition
US Department of Energy
PO Box 23786
Washington DC 20026-3786

Dear Mr. Stevenson:

As the Governor's Lead Contact for State of Tennessee's National Environmental Policy Act (NEPA) reviews, I am providing comments in response to the "Draft Environmental Impact Statement (DEIS) for Surplus Plutonium Disposition," DOE/EIS-0283-D. The attached comments from state agencies represent the complete and official response of the State of Tennessee.

The State of Tennessee would like to remind DOE that, although this DEIS does not directly pertain to inventories of stored plutonium in this state, plutonium wastes and contaminated equipment do exist in Tennessee and DOE must address the disposition of these wastes in the near future.

In addition, the DEIS does not fully discuss transport of wastes for disposition. If wastes are to be transported through Tennessee, and particularly if wastes are to be brought into Tennessee for postirradiation, the State has significant concerns which are not addressed. Specifically, the DEIS does not provide adequate analysis of routing, safety or inspection procedures.

I request that the enclosed comments be given your full consideration. As always, your timely consideration of the interests of the State of Tennessee is appreciated. If you have any questions, please contact our staff policy analyst at 615-532-4968 (fax 615-532-0740).

Sincerely,

Justin P. Wilson
Deputy to the Governor for Policy

JPW:emw

Attachments

cc: Mr. Milton H. Hamilton, Jr., Commissioner
NEPA coordination file/Mr. Dodd Galbreath
NEPA contacts

State Capitol, Nashville, Tennessee 37243-0001
Telephone No. (615) 741-2001

FD326

FD326-1

DOE Policy

DOE acknowledges the Governor's concern that existing plutonium wastes and contaminated equipment in the State of Tennessee be dispositioned appropriately. Most of the plutonium stored at ORR is in the form of waste. Approximately 600 g (21 oz) of plutonium 238 (not weapons-usable) has been declared excess and is being held in storage at ORNL awaiting transfer for use in the space program. Approximately 780 g (28 oz) of other plutonium isotopes have been repackaged and are awaiting transfer to LLNL. The scope of this SPD EIS includes alternatives for the disposition of weapons-usable plutonium declared surplus to U.S. defense needs. Other radioactive materials, wastes and spent nuclear fuel that contain plutonium are beyond the scope of this SPD EIS. Alternatives for management of radioactive and hazardous wastes were evaluated in the *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste* (DOE/EIS-0200-F, May 1997). RODs for TRU, hazardous and high-level waste have been issued; RODs for low-level and mixed low-level waste are expected shortly. Alternatives for management of spent nuclear fuel were evaluated in the *Department of Energy Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Programs Final EIS* (DOE/EIS-0203-F, April 1995). RODs for this EIS were issued in May 1995, and March 1996. Transportation and disposal of TRU waste are evaluated in the *WIPP Disposal Phase Final Supplemental EIS* (DOE/EIS-0026-S-2, September 1997). A ROD for the WIPP EIS was issued in January 1998. Transportation and disposal of spent nuclear fuel are evaluated in the *Draft EIS 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). A ROD has not been issued for the *Yucca Mountain EIS*.

As shown in the revised Section 1.6, if postirradiation examination is necessary for the purpose of qualifying the MOX fuel for commercial reactor use, DOE prefers to perform that task at ORNL. ORNL has the existing facilities and staff expertise needed to perform postirradiation examination as a matter of its routine activities; no major modifications to facilities or processing

capabilities would be required. In addition, ORNL is about 500 km (300 mi) from the reactor site that would irradiate the fuel.

FD326-2 **Transportation**
If ORNL is used for the postirradiation examination of spent lead assembly MOX fuel, DOE would prepare detailed transportation plans, including routing and safety procedures, for the movement of these materials. Transportation of spent nuclear fuel to ORNL for postirradiation examination is discussed in the revised Section 4.27.6.3. Section 4.27.6.3 and Appendix H were revised to include waste management impacts from these activities at ORNL.



THE STATE OF TENNESSEE
TENNESSEE EMERGENCY MANAGEMENT AGENCY
EMERGENCY OPERATIONS CENTER
MILITARY DEPARTMENT OF TENNESSEE
3041 SIDCO DRIVE, P.O. BOX 41502
NASHVILLE, TENNESSEE 37204-1502
(615) 741-0001

September 11, 1998

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

Dear Mr. Stevenson:

RE: Document No. DOE/EIS 0283-D, Draft Environmental Impact Statement, Office of
Fissile Materials Disposition - Surplus Plutonium Disposition

The Tennessee Emergency Management Agency has reviewed the above document. The
following comments are respectfully submitted for your consideration.

- | | |
|--|---|
| 1. Environmental Impact Statement does not provide any substantial information or data on which to base an evaluation such as numbers of shipments, shipment routes, or processing locations. | 3 |
| 2. Roadworthiness and oversight of commercial carriers rollingstock carrying various physical and chemical forms of Surplus Plutonium is not addressed. Tennessee Highway Patrol Commercial Vehicle Enforcement Division Officers perform Commercial Vehicle Safety Alliance (CVSA) Enhanced out-of-service criteria inspections of vehicles carrying radioactive materials of a sensitive nature. | 4 |
| 3. The radiological status verification of shipments is not addressed. State Division of Radiological Health physicists must verify the status of a shipment to minimize public perception of hazards posed by a shipment and to verify CFR compliance. | 5 |
| 4. This Environmental Impact Statement does not address the ancillary risks to the public that Many thousands of gallons of toxic and caustic industrial chemical compounds in hundreds of semi-tractor-trailer shipments will pose to the public. In most cases the chemical properties of these shipments pose a much greater danger to the public than do the radiological considerations. | 6 |

FD326

FD326-3

Transportation

The shipment of spent lead assembly MOX fuel using commercial carriers would be the subject of detailed transportation plans in which routes and specific processing locations would be coordinated with State, tribal, and local governments. Section 4.27.6 provides the number of shipments that would be required for this type of material.

The shipment of waste would be in accordance with the decisions reached on the *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste* (WM PEIS) (DOE/EIS-0200-F, May 1997) and the *WIPP Disposal Phase Final Supplemental EIS* (DOE/EIS-0026-S-2, September 1997).

The transportation of special nuclear materials is the subject of detailed planning with the DOE Transportation Safeguards Division. The dates and times that specific transportation routes would be used for special nuclear materials are classified information; however, the number of shipments that would be required, by location, has been included in this EIS. Additional details are provided in *Fissile Materials Disposition Program SST/SGT Transportation Estimation* (SAND98-8244, June 1998), which is available on the MD Web site at <http://www.doe-md.com>.

FD326-4

Transportation

DOE has developed and implemented a mandatory Motor Carrier Evaluation Program with 12 criteria for commercial trucking firms. Under the Motor Carrier Evaluation Program criteria, trucking firms with poor safety records would be excluded from transporting the materials required for the surplus plutonium disposition program. The Motor Carrier Evaluation Program would be invoked as one of the requirements in DOE's contract for shipping of any radioactive material. As stated in Appendix L.3.2, equipment used in this system is subjected to significantly more stringent maintenance standards than commercial transport equipment.

FD326-5

Transportation

Transportation of nuclear materials would be in compliance with all applicable Federal, State, and local laws, rules, regulations, and requirements.

The remainder of this comment is addressed in responses FD326-3 and FD326-4.

FD326-6

Transportation

Any shipment of hazardous materials involves some level of risk, and exposure to acutely toxic chemicals can pose a significant danger to the public. Fortunately, transportation accidents involving releases of hazardous materials occur infrequently.

The shipment of hazardous materials required for construction and operation of the proposed surplus plutonium disposition facilities would be in strict accordance with applicable DOT regulations that cover the packaging and transportation of hazardous materials on public highways, airways, and waterways. These shipments would also be in compliance with all applicable State, tribal, and local laws, rules, regulations, and requirements. The DOT regulations include those specified in 49 CFR 172 and 173. Part 172 contains the Hazardous Materials Table which lists and classifies various types of hazardous materials (e.g., explosives, flammables, gases, corrosives, poisons, infectious substances, radioactive materials, etc.) and specifies related modal and placarding, marking, and labeling requirements. Part 172 also describes shipper and carrier responsibilities including driver training and emergency response requirements. Part 173 describes DOT performance-based packaging requirements and shipper responsibilities for material classification and notification.

DOT implements these regulations through its Hazardous Materials Safety Program. This program is a risk-based, prevention oriented system that uses data, information, and experience to classify hazardous materials and manage the risks of these materials in transport. As part of this program, DOT maintains a Hazardous Materials Information System (HMIS), which is a database of the Hazardous Material Incident Reports that have been filed with DOT. According to HMIS, in 1994, the risk of a fatality in the general

population from a hazardous materials transportation incident was estimated to be 1 chance in 13 million on an annual basis. By comparison, the annual fatality risk values for selected other types of incidents were estimated to be: (1) motor vehicle accidents - 1 in 6,100; (2) drowning - 1 in 68,000; (3) fires - 1 in 83,000; (4) railway accidents - 1 in 390,000; (5) commercial air carrier accidents - 1 in 1 million; (6) floods (in 1991) - 1 in 2.5 million; (7) lightning (in 1995) - 1 in 3.5 million; and (8) tornado (in 1995) - 1 in 8.7 million (see <http://hazmat.dot.gov/riskcompare.htm>).

The industrial chemicals expected to be required for construction and operation of the proposed facilities are identified in Appendix E. These chemicals would be acquired through normal, commercial processes, and would be delivered in accordance with the established transportation safety standards described above. Since these chemicals would be acquired on the local or regional commercial markets, their origins cannot be determined; therefore, the incremental risks resulting from the shipment of these materials cannot be quantified. However, the DOT data presented above suggest that the incremental risks associated with these shipments should be small in relation to other recognized hazards.

Mr. G. Bert Stevenson
September 11, 1998
Page 2

- | | |
|---|---|
| 5. The overall impact of MOX fuel on the commercial reactor fuel industry is not addressed. Projected usage needs by the industry versus quantities available from other in-place sources is not addressed. | 7 |
| 6. What is the proposed disposition of Transuranic waste generated? | 8 |
| 7. What is the proposed disposition of the High and Low Level waste generated? | |

If you have any further questions, please contact Elgan Usrey at (615) 741-2879 and he will be happy to assist you.

Sincerely,

John D. White, Jr.
Director

JDW:bc

FD326

FD326-7

MOX Approach

The MOX facility would produce nuclear fuel that would displace LEU fuel that utilities would have otherwise purchased. However, this should have minimal impact on the industry. DOE conducted a procurement process to acquire MOX fuel fabrication and irradiation services. As a result of this procurement process, DOE identified Catawba, McGuire, and North Anna as the proposed reactors to irradiate MOX fuel, as part of the proposed action in this SPD EIS. Therefore, only 3 out of approximately 107 operating domestic, commercial reactors would use the MOX fuel. MOX fuel is approximately 95 percent uranium dioxide and only about 5 percent plutonium dioxide, and no more than about 40 percent of any core would be MOX fuel. Production volume would also not change significantly; the number of MOX fuel assemblies would be only a small percentage of the total number of fuel assemblies produced annually. Finally, since the selected MOX fuel fabricator would also be a producer of LEU fuel, the work would remain in the same industry; the only changes would be the material used and location of the work.

FD326-8

Waste Management

As described in Appendix H and the Waste Management sections in Chapter 4 of Volume I, TRU waste would be disposed of at WIPP. MOX spent fuel and HLW canisters containing immobilized surplus plutonium would be disposed of in a potential geologic repository. 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.



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DOE OVERSIGHT DIVISION
761 EMORY VALLEY ROAD
OAK RIDGE, TENNESSEE 37830-7972

September 16, 1998

US Department of Energy
Office of Fissile Materials Disposition
c/o SPD EIS
Post Office Box 23786
Washington DC 20026-3786

Dear Sirs:

DOCUMENT REVIEW: Draft Environmental Impact Statement, "Surplus Plutonium Disposition," DOE/EIS-0283-D, July, 1998.

The Tennessee Department of Environment and Conservation DOE Oversight Division (TDEC DOE-O) has reviewed the above Draft Environmental Impact Statement (EIS). The subject EIS was reviewed in accordance with the requirements of the National Environmental Policy Act (NEPA) and associated implementing regulations 40 CFR 1500, 1508 and 10 CFR 1021 as implemented.

The State does want to note that there are quantities of plutonium in the form of TRU waste, contaminated equipment, spent fuel, and working inventory still present on the Oak Ridge Reservation. Although not pertinent to this EIS, this plutonium will require final disposition and should to be addressed by DOE. Attachment I contains our current understanding of the plutonium inventory on the Oak Ridge Reservation.

After review of the subject document, the Division offers the following comments for your consideration:

Specific Comments:

1. Volume I, Part A, Section 2.1.3, Page 2-9

ORNL is a potential site for postirradiation examination of the lead assemblies. The DPEIS states that "...only minor modifications for the receipt of materials would be required." The PEIS should address what these "minor modifications" include.

2. Volume I, Part A, Section 2.4.3.2, Page 2-30

The MOX facility's proposed design would warehouse a year's production of fuel assemblies. The DPEIS also states the individual fuel assemblies could be stored for as long as 18 months prior to shipment to the designated domestic, commercial reactor. The statement of storage for up to 18 months suggests overproduction and possibility of long-term storage of unused/unwanted MOX fuel assemblies.

FD326

As described in Sections 2.18.3 and 4.28.2.8, additional spent fuel would be produced by using MOX fuel instead of LEU fuel in domestic, commercial reactors. Spent fuel management at the proposed reactor sites would not be expected to change dramatically due to the substitution of MOX assemblies for some of the LEU assemblies. Likewise, the additional spent fuel would be a very small fraction of the total that would be managed at the potential geologic repository. LLW would be disposed of in accordance with current site practices. This could include disposal at the DOE site generating the waste, or disposal at commercial facilities or other DOE sites in accordance with decisions made with respect to LLW in the WM PEIS (DOE/EIS-0200-F, May 1997).

FD326-9

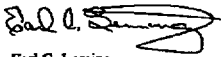
Lead Assemblies

As discussed in response FD326-1, ORNL is the preferred alternative for postirradiation examination of lead assemblies. Section 2.17.3 was revised to indicate that at either ANL-W or ORNL, minimal modifications to existing equipment would be required for acceptance of full-length fuel rods.

FD326-10

MOX Approach

The SPD Draft EIS's specification of assembly storage for up to 18 months is a bounding assumption for planning and analysis purposes. This SPD EIS reflects an extension of the possible storage time of individual assemblies to up to 2 years, a storage period that is neither expected nor desirable from a business standpoint. As stated in Section 2.4.3.2, production would closely follow product need. Reactor licensees typically order LEU fuel to coincide with their refueling outages, and fuel shipment is usually scheduled so that fuel does not have to be stored very long at the reactor site. Licensees work closely with each of the vendors involved in the fuel fabrication process, as well as the fuel fabricators, to ensure that the fuel is ready when needed. The only likely difference in this process for MOX fuel would be a closer relationship between the licensee and the fabricator; the two would work as a team. Reactor shutdowns and other operational issues that could affect the need for fuel would be accommodated in the fuel fabrication schedules, and adjustments would be made as required.

3. Volume I, Part A, Section 2.4.3.2, Page 2-30 Please provide additional details for the statement "Individual fuel assemblies could be stored for as long as 18 months..." Describe the significance of the 18 months and what happens if storage exceeds 18 months.	10
4. Volume I, Part A, Section 2.4.4.4, Page 2-36 This section needs to describe the events as listed in Table 2-3. Table 2-3 addresses transportation requirements for shipment of uranium fuel rods from a commercial fuel fabrication facility to the MOX facility. Section 2.4.4.4 does not address the commercial truck shipment of uranium fuel rods from a commercial fuel fabrication facility to the MOX facility. Describe the reason for shipment of these uranium fuel rods to the MOX facility.	11
5. Volume I, Part B, Section 4.27.6, Page 4-374 ORNL is a candidate for postirradiation examination of the lead MOX fuel assemblies. The DPEIS does not address the waste streams associated with the testing nor does it describe the storage/disposal of the lead assemblies once testing has been concluded.	12
If you have any questions regarding this letter, please contact Bill Childres or me at (423) 481-0995	
Sincerely	
	
Earl C. Leming Director	
xc: Justin Wilson - Governor's Office Jim Hall - DOE Dodd Galbreath - TDEC	
e415.99	
FD326	

In the event that MOX fuel were made and then not be needed due to NRC not issuing a license amendment or other factors, DOE would be responsible for the unirradiated fuel and would reexamine its disposition option.

FD326-11

Transportation

Section 2.4.4.4 includes the shipment of uranium fuel rods from a commercial fuel fabrication facility to the MOX facility. Both uranium fuel rods and MOX fuel rods are bundled together at the MOX facility to form a complete MOX assembly.

FD326-12

Waste Management

Section 4.27.6.3 and Appendix H were revised to include waste management impacts from these activities at ORNL.

Attachment 1

SUBJECT: Oak Ridge Plutonium Inventory and the Surplus Plutonium Disposition Draft Environmental Impact Statement, DOE/EIS-0283-D, U.S. Department of Energy dated July 1998

REFERENCE: 1. Plutonium Working Group Report on Environmental, Safety and Health Vulnerabilities Associated with the Department's Plutonium Storage, DOE/EIS-0415, U.S. Department of Energy dated November 1994

2. Site Integrated Stabilization Management Plan (SISMAP) for the Implementation of Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 94-1 (and 97-1) dated April 15, 1998

CRITERIA and SCOPE:

Surplus Plutonium from above-subject *Surplus Plutonium EIS* (originally from the *Storage and Disposition EIS*). This document evaluates "weapons-usable fissile materials" (including all isotopes of plutonium except plutonium-238) that were declared "surplus" by the President in March 1995. In addition, "plutonium that may be declared surplus in the future," was evaluated. It is noteworthy that none of the Oak Ridge plutonium is included in the PEIS or the EIS.

Plutonium evaluated under vulnerabilities as reported in Reference 1. *Plutonium Working Group Report*: This report includes all of the Oak Ridge plutonium that is not considered "waste," nuclear reactor fuel, or spent nuclear fuel.

Plutonium evaluated under *Recommendation 94-1* as reported in Reference 2: "These criteria define an acceptable interim "end state" for stabilization and repackaging of Pu-bearing materials. The criteria do not apply to materials in working inventory, Pu associated with SNF, Pu-bearing liquids, or sealed (fabricated) Pu-bearing components. The criteria also do not apply to waste items (e.g., tools and equipment) whose surfaces are contaminated with low levels of Pu."

13

FD326-13

Waste Management

As described in Section 1.1, this SPD EIS addresses only surplus plutonium that is considered weapons usable. None of this plutonium is currently located at the Oak Ridge Reservation, and therefore, it is not addressed in this EIS.

OAK RIDGE PLUTONIUM INVENTORY:

(from reference 1, *Plutonium Working Group Report* dated November, 1994)

Building	Kilograms	Form	Packages
Isot. Calibration, 2007	**	sealed sources	2
Analytical Lab, 2026	**	metal	1
Special Nuclear Material Vault, 3027	1.385	metal, oxide, scrap/residues, & sealed sources	106
Isotope Dispensing, 3038	**	sealed sources	15
I & C Calibration, 3500	**	metal & oxide	1
Alpha Isolation Laboratory, 3508	**	sealed sources	1
High Level Radiochemical Lab, 4501	**	solution	10
Transuranium Research, 5505	**	metal, oxide, & solution	21
Heavy Ion Accelerator, 6000	**	sealed sources	2
Linear Accelerator, 6010	**	metal & sealed sources	6
Tower Shielding Facility, 7700	**	sealed sources	4
Destimetry Research, 7710, 7712, 7735	**	sealed sources	8
Waste Exam. Facility, 7824	**	scrap/residues & sealed sources	86
High Flux Isotope Reactor, 7900	**	metal	3
Radiochemical Engineering Development Center (REDC), 7920	1.46	oxide, solution, & sealed sources	111
Radiochemical Engineering Development Center (REDC), 7930	**	metal, oxide, scrap/residues, & sealed sources	175
Isotope Enrichment, 9204-3	**	sealed sources	
Uranium Casting, 9212	1.04	oxide & solution	16
Source Storage, 9213	**	sealed sources	46
K-25 (E17P), K-102SD	0.031	oxide	3
K-25 (E17P), K-102SD	0.028	Pu/Be sources	2
Oak Ridge Institute for Science and Education (ORISE), 2715 & Room E-38	4.6 Kg (Vol. 1, page 50)	metal, oxide, scrap/residues, & sealed sources	627

**Inventory is < 1 Kg.

Note: 1. The above is 1994 data from Reference 1, *Plutonium Working Group Report*, Vol. I, pages 50, A-18, & A-19, and Vol. II, Part I3, pages 8, 9 & 10 and has changed as follows since the report was written:

185 g has been packaged as waste and some or all is being stored in retrievable storage at ORNL/WSVA 5.

621 g has been packaged as waste and will be sent to LLNL for disposal in 2000.

609 g is Pu-238 and is being sent to REDC for possible use on the RTG program if the RTG program is transferred from the Mound Plant to ORNL.

The remainder of the plutonium listed in the above table is "working inventory" and will remain in the respective programs.

The above updated inventory information was obtained from Reference 2 and updated by L. T. Gordon, Plutonium Vulnerability Assessment Program Manager at ORNL based on July 7, 1998 data.

2. Oak Ridge also has approximately 40 to 70 Kg of plutonium, most of which is in the TRU waste or spent fuel categories and considered “out-of-scope” for the documents listed above. Reference 1, *Plutonium Working Group Report*, Volume II, Part 9, pages 5-7 lists 37 facilities that contain material (plutonium waste or TRU containing no plutonium) determined to be outside the scope of that document. Page 31 of that document further clarifies plutonium that is out-of-scope for the vulnerabilities review. None of this plutonium is included in the 4.6 Kg total listed in the above table.

3. The above table does not include plutonium being processed at REDC for the Mark 42 Project. Plutonium waste products from the Mark 42 project will be added to the inventory explained under item 2 above.

13

85 Claymore Lane
Oak Ridge, TN 37830
September 14, 1998

To: DOE-Office of Fissile Materials Disposition
From: Barbara A. Walton
Subject: Surplus Plutonium Disposition (SPD) Draft Environmental Impact Statement (EIS)

- | | |
|---|---|
| 1. I support DOE's preference for siting plutonium immobilization at SRS. | 1 |
| 2. I support Pit Disassembly and Conversion at Pantex. | |
| 3. Because I am concerned about the cumulative impacts at SRS, I would prefer alternative 9A to 3A or 5A. Even better would be to consider siting the MOX Fuel Fabrication at INEEL to create an alternative that was not considered in this EIS. It is not clear to me that this would detract from INEEL's focus on cleanup and nuclear technology. | 2 |
| 4. Although I understand the need to consider Russia's progress in this matter, I don't think construction of items 1 and 2 above should wait. Delaying the MOX Fuel Fabrication construction should be sufficient along with potential for delay in processing | 3 |

I am pleased to see continued progress towards resolution of this matter.

I also want to request a copy of the final EIS and ROD.

Barbara A. Walton

MD185

MD185-1

Alternatives

DOE acknowledges the commentor's support for siting the immobilization facility at SRS and the pit conversion facility at Pantex. As indicated in the revised Section 1.6, DOE prefers siting the pit conversion and MOX facilities at SRS. SRS is preferred for the pit conversion facility because the site has extensive experience with plutonium processing, and the pit conversion facility complements existing missions and takes advantage of existing infrastructure. The preferred can-in-canister approach at SRS complements existing missions, takes advantage of existing infrastructure and staff expertise, and enables DOE to use an existing facility (DWPF). DOE is presently considering a replacement process for the in-tank precipitation (ITP) process at SRS. The ITP process was intended to separate soluble high-activity radionuclides (i.e., cesium, strontium, uranium, and plutonium) from liquid HLW before vitrifying the high-activity fraction of the waste in DWPF. The ITP process as presently configured cannot achieve production goals and safety requirements for processing HLW. Three alternative processes are being evaluated by DOE: ion exchange, small tank precipitation, and direct grout. DOE's preferred immobilization technology (can-in-canister) and immobilization site (SRS) are dependent upon DWPF providing vitrified HLW with sufficient radioactivity. DOE is confident that the technical solution will be available at SRS by using radioactive cesium from the ion exchange or small tank precipitation process. A supplemental EIS (DOE/EIS-0082-S2) on the operation of DWPF and associated ITP alternatives is being prepared. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

MD185-2

Cumulative Impacts

DOE acknowledges the commentor's concern about the cumulative impacts from the proposed surplus plutonium disposition facilities at SRS. Section 4.32 takes into consideration existing missions at candidate sites, and analyzes the potential cumulative impacts of surplus plutonium disposition activities and other programs as well as current, past, and reasonably foreseeable

future activities at other sites. As discussed in Section 4.14, Alternative 7 considers siting the MOX facility at INEEL.

MD185-3 **Purpose and Need**

DOE acknowledges the commentor’s concerns about scheduling the construction and operations of the proposed surplus plutonium disposition facilities. 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. Russian policy, however, is only one of the factors in decisions relative to the methods and timing of surplus plutonium disposition.

City of Amarillo, Texas

Comments of Hon. Dianne Bosch Regarding the DOE Surplus Plutonium Disposition Draft Environmental Impact Statement

I would like to begin by thanking the Department of Energy for the opportunity to comment on matters of great importance to the Amarillo area. As a City Commissioner for the largest city in this region, let me say that I strongly favor the Pantex Plant as the single preferred alternative for the DOE's Pit Disassembly and Conversion mission.

This mission has been extensively reviewed by experts from federal and state government agencies, university researchers and workers from Pantex. Based on their reports, I believe that the Pit Disassembly and Conversion facility can be operated in a manner that does not threaten our precious natural resources. Specifically, I believe that this facility would not pose a threat to the Ogallala aquifer, which supplies irrigation and drinking water to this region.

One reason for my confidence in the safety of this mission is the excellent work force at Pantex. Pantex has been a good neighbor to our city for over 50 years. Pantex has the best radiological safety record in the nuclear complex, and it is the only site that has a large number of workers who are specifically trained to handle and safeguard plutonium weapons components. The components, often called "pits," are already safely stored at Pantex.

The Pantex workforce is second-to-none in its implementation of safety initiatives such as the Voluntary Protection Program. This employee-based safety program has been successful in reducing occupational hazards and has become a model for the entire DOE weapons complex. In addition, the Metal

Dianne Bosch
City Commissioner
City of Amarillo
P. O. Box 1571
Amarillo, TX 79186
(806) 378-3000

TXD29

TXD29-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. As the commentor points out, and as indicated in Chapter 4 of Volume I, impacts of operating the pit conversion facility on health, safety, and the environment at Pantex would likely be minor. Decisions on the surplus plutonium disposition at Pantex will be based on such environmental analyses, as well as technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Hon. Dianne Bosch
Page 2

Trades Council has safety officers to whom employees may directly address safety concerns. The Savannah River Site does not have either of these important safety programs in place.

The Department of Energy should carefully consider the enhanced safety programs already in place at Pantex when deciding where to locate the Pit Disassembly and Conversion Facility. Furthermore, the Department should understand that union support in Washington will play a crucial role in getting this expensive program funded by the Congress. A viable Pantex plant, with the strong bi-partisan support of the Texas congressional delegation and the national AFL-CIO is important to the long-term future of both the Surplus Plutonium Disposition program and the DOE weapons complex.

Pantex has the key technical and political advantages that make it the only logical choice for Pit Disassembly and Conversion. I urge the Secretary of Energy to name Pantex as the site for this important mission. Again, thank you for the opportunity to comment.

1

Dianne Bosch
City Commissioner
City of Amarillo
P. O. Box 1971
Amarillo, TX 79186
(806) 378-3000

TXD29

City of Amarillo, Texas

Comments of Hon. Robert Keys Regarding the DOE Surplus Plutonium Disposition Draft Environmental Impact Statement

Welcome to Amarillo and thank you to the Department of Energy for allowing the elected officials and residents of the Amarillo area comment on the Surplus Plutonium Disposition program. Pantex is a very important part of the economy for the entire northwest region of the state of Texas. As such, the economic future of this area is tied very closely to the future of the Pantex Plant.

The Amarillo City Commission has supported new missions at Pantex for many years. We have insisted, and continue to insist, that all such missions be conducted in a manner that protects the natural resources of the Texas panhandle. My fellow Commissioners and I believe that the Pit Disassembly and Conversion and MOX fuel manufacturing missions can, and should be, performed in a safe manner at Pantex.

When I am not wearing my "City Commissioner" hat, I operate a land surveying business. On numerous occasions, I have performed surveying work at Pantex. I am always impressed with the care shown by employees at the plant regarding care for the environment. The pump-and-treat and ground water monitoring systems in place at Pantex are state of the art. I have every confidence that the employees at Pantex would perform the Pit Disassembly and Conversion and MOX manufacturing missions with great care and in a manner that protects the environment of this region.

Furthermore, on my visits to Pantex, I am always impressed with the outstanding security procedures in place to protect classified weapons

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TXD28

TXD28-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion and MOX facilities at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Hon. Robert Keys
Page 2

components. With recent announcements of underground nuclear testing by India and Pakistan, and with well known weapons programs in Iraq, Iran and North Korea; it is obvious that many countries or other groups would like to have weapons such as those at Pantex. For this reason, the DOE's own non-proliferation experts have recommended that the transport of plutonium weapons components should be minimized. The United States even pays Russia to minimize the transport of their weapons components. Surely, if we are spending US tax dollars in Russia to minimize transport of their weapons, we should also be willing to equally safeguard our nuclear secrets in this country.

The workforce in the Texas panhandle is truly outstanding. We just received confirmation of this fact when Bell Helicopter announced plans to assemble the V-22 Osprey Tiltrotor aircraft in Amarillo. Surely the DOE should also recognize the outstanding work ethic and expertise of the people of this region. You need not look further than this room tonight to see evidence of the passion, integrity and expertise of Pantex workers from the panhandle of Texas. These same employees are the best qualified to work with plutonium pits removed from nuclear weapons. Since these pits are already stored at Pantex, the Pit Disassembly and Conversion and MOX Fuel Manufacturing missions should also be performed at Pantex.

Once again, thank you for the opportunity to comment on this important matter. I urge the Secretary of Energy to name Pantex as the site for Surplus Plutonium Disposition missions.


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TXD28

TXD28-2

DOE Policy

DOE acknowledges the commentor's concern regarding safe transport of weapons-usable plutonium. In order to address security against terrorist-related incidents, all intersite shipments of plutonium for the surplus plutonium disposition program would be made using DOE's SST/SGT system. This involves having 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 transportation of special nuclear materials is the subject of detailed planning with DOE's Transportation Safeguards Division. The dates and times that specific transportation routes would be used for special nuclear materials are classified information; however, the number of shipments that would be required, by location, has been included in Appendix L of this SPD EIS. Additional details are provided in *Fissile Materials Disposition Program SST/SGT Transportation Estimation* (SAND98-8244, June 1998), which is available on the MD Web site at <http://www.doe-md.com>.



CITY OF AMARILLO

August 10, 1998

Good Afternoon,

As always, I would like to thank the Department of Energy for the opportunity to provide comments on this most important issue. For the last four to five years, members of this community have come to these hearings you have provided for many issues relating to the Pantex Plant. We take time out of our days to do this because we care about the outcome of Pantex and the workforce who has provided a security comfort to the entire nation for many decades.

The issue involving pit disassembly may be the biggest issue that we as a nation will face going into the next millennium. The safety of our entire nation is at stake. The components making up our nuclear arsenal should be handled with the greatest of care in order to make certain that our environment doesn't suffer from this obviously needed procedure. Pantex has had the gargantuan task of providing this service to our nation for many years. The plant has always performed in the safest manner possible for the workers, environment and surrounding community members.

I represent the city of Amarillo as an elected official. For close to eight years the people have been asking me to speak in favor of expanded activity at the Pantex Plant. Today I come to you as an elected official as well as a resident of Amarillo to do just that. I believe there is only one site that has a proven positive track record in the handling of plutonium after disassembly, Pantex. The workers have proven that safety comes first before production, and have more experience in handling plutonium pits than any other site in the complex. The DOE should not place classified weapons components in the hands of employees at the Savannah River Site who have extremely limited experience in dealing with pits.

Just one advantage Pantex has over Savannah River Site is that converting classified plutonium weapons components ("pits") into non-classified forms at Pantex requires no off-site shipment of pits. Performing the work at Pantex would

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2

3

P. O. Box 1971, Amarillo, Texas 79106-0001 806/978-9000 Fax 806/978-9018

TXD02

TXD02-1 **Alternatives**

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on such environmental analyses, as well as technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

TXD02-2 **Alternatives**

As indicated in the revised Section 1.6, SRS is preferred for the pit conversion facility because the site has extensive experience with plutonium processing, and the pit conversion facility complements existing missions and takes advantage of existing infrastructure.

TXD02-3 **Transportation**

DOE acknowledges the commentor's concern for the security of offsite shipment of pits. As indicated in Section 2.18, no traffic fatalities from nonradiological accidents or LCFs from radiological exposures or vehicle emissions are expected. 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. Section 2.4.4.1 discusses safety measures taken for shipment of pits.

decrease the risk of classified weapons parts falling into unfriendly hands. The DOE should heed the advise of its own nuclear non-proliferation experts who have argued to minimize shipments of pits. 3

Given these advantages and many others that have or will be mentioned today, I urge you to give full consideration to Pantex for the mission of pit disassembly and disposal.

Sincerely,



Kevin Knapp
Amarillo City Commissioner

TXD02

AUGUST 11, 1998
COMMENTS OF HONORABLE KEL SELIGER REGARDING
THE DOE SURPLUS PLUTONIUM DISPOSITION
DRAFT ENVIRONMENTAL IMPACT STATEMENT

Thank you for the opportunity to address the Department this evening. We live in exciting times in Amarillo and in the United States. The dawn of a new millennium is a signal that we are going to see the tremendous changes in the years ahead. However, our focus on the future should not be interpreted as an endorsement of forgetting our history. A big part of the history of this nation during the last half of the 20th century has been the nuclear weapons program. Amarillo and Pantex are proud to have played a big part in the success of that program for nearly 50 years. We believe that we are an irreplaceable element in this era of disarmament.

The success of the Pantex plant over the past 50 years should not be forgotten when considering the future of the nuclear weapons complex. Pantex has long had one of the lowest operating costs in the weapons complex and it has had excellent relations between the contractor and the largest labor bargaining unit. Pantex is among the cleanest weapons complex sites from an environmental perspective. The Department has recently

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TXD37

TXD37-1

Alternatives

DOE acknowledges the commentor's support of Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

Hon. Kel Seliger
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recommended that Pantex be removed from the National Priorities List because of the excellent progress being made in the environmental area.

Pantex has long had outstanding support of the public in the Texas panhandle and the elected officials who represent this area at the local, state and federal levels.

When considering the future mission assignments that could come to Pantex, such as the Pit Disassembly and Conversion and MOX Fuel missions, the DOE should consider the substantial strengths possessed by Pantex. The recent financial analysis conducted by the DOE shows that there is no significant cost difference between Pantex and Savannah River. In fact, I believe that report significantly underestimates the cost of repackaging pits for off-site transport from Pantex to Savannah River if the South Carolina site is chosen for both new missions. In addition to the cost of shipping pits, the Department should listen carefully to its own non-proliferation experts who favor the minimization of pit transport.

From an environmental aspect, the Department has shown that both pit

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TXD37

TXD37-2

Transportation

DOE acknowledges the commentor's support for siting the pit conversion and MOX facilities at Pantex. Because this comment relates directly to the cost analysis report, it has been forwarded to the cost analysis team for consideration. 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, is 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.

The transportation requirements for the surplus plutonium disposition program are evaluated in this SPD EIS. If the pit conversion facility were located at Pantex (Alternative 5), the risks from transportation-related radiological exposures would be an estimated 7.8×10^{-2} LCF, and from traffic accidents (non-radiological), an estimated 5.2×10^{-2} fatality. For comparison, if the pit conversion facility was located at SRS (Alternative 3), the risks would be slightly higher, 8.0×10^{-2} LCF and 5.6×10^{-2} fatality, respectively. Transportation impacts are summarized in Chapter 4 of Volume I and Appendix L. As indicated in Section 2.18, no traffic fatalities from nonradiological accidents or LCFs from radiological exposures or vehicle emissions are expected.

TXD37-3

Alternatives

This comment is addressed in response TXD37-1.

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Page 3

disassembly and MOX fuel manufacture can be done without harm to the natural environment. The choice comes down to where the work will be done correctly. Pantex has a continuing production mission and a highly qualified workforce that pays careful attention to detail. The very people who are promoting the Savannah River Site for this work say in essence “put the missions here because we are a dirty site and we don’t care if we get it dirtier.” In the future, can DOE afford to have that attitude prevail? We believe this work can be done safely, but only if it is performed by employees who have a true commitment to doing so. Pantex employees have long demonstrated such a commitment.

I would like to remind the Department that it has enjoyed strong support from the Texas Delegation in the Congress to accomplish its defense, maintenance and remediation missions. This same delegation has supported Pit Disassembly, Conversion and MOX production at the Pantex plant.

There is no reason to assume that there will be such support in transporting weapons ready plutonium half way across the country. That is, unless the

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TXD37

TXD37-4 **DOE Policy**
DOE acknowledges the commentor’s concern for environmental issues related to surplus plutonium disposition. Cleanup at SRS is a priority and will remain a priority, and can coexist with other DOE initiatives. Although the surplus plutonium disposition program is also considered a top priority, it would be conducted in such a way that any additional waste would be processed and disposed of in a timely and environmentally acceptable manner.

TXD37-5 **Alternatives**
This comment is addressed in response TXD37-1.

TXD37-6 **Transportation**
This SPD EIS analyzes the risk involved in transporting weapons-usable plutonium between DOE sites for processing. 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. As discussed in Appendix L.3.2, key characteristics of the SST/SGT system include, but are not limited to, couriers who are armed Federal officers, specially designed escort vehicles, 24-hour real-time monitoring, and stringent maintenance standards. Appendix L.6.5 discusses sabotage or terrorist attack during transportation.

Hon. Kel Seliger
August 11, 1998
Page 4

Department of Energy has decided that minimization of the risk of proliferation is no longer a priority. I have seen no such pronouncement.

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I urge the Secretary of Energy to carefully consider all of these aspects before making a final decision on the site location for Pit Disassembly and Conversion and MOX fuel manufacturing. Keeping these factors in mind, I strongly recommend that the Secretary name the Pantex Plant for these missions.

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TXD37

TXD37-7

This comment is addressed in response TXD37-1.

Alternatives



CITY OF AMARILLO

Comments of Hon. Trent Sisemore Regarding the DOE Surplus Plutonium Disposition Draft Environmental Impact Statement

Thank you for allowing me the opportunity to represent my constituents in Amarillo by making comments on the draft EIS for Surplus Plutonium Disposition. It is an honor to represent more than 170,000 residents in Amarillo. Thousands of those residents are either Pantex employees or live in households of Pantex employees. Pantex has a profound effect on our local economy. I am proud of the support that the people of Amarillo have shown for the Pantex facility, and it is my pleasure to state that I wholeheartedly support the location of the Pit Disassembly and Conversion Facility and MOX Fuel Fabrication Facility at Pantex.

In addition to representing the citizens of Amarillo as a City Commissioner, I am also a retailer and music minister. Since none of these "credentials" qualify me as an expert in nuclear physics, I have sought to become familiar with Pantex and the proposed new missions that may come to Pantex. In my research on Pantex, I have read reports, talked with experts and even toured nuclear facilities in England and France.

After having done all that, one fact stands out. The type of work envisioned in the plutonium disposition program can be done safely by the outstanding employees at Pantex. In fact, the DOE has said that both the pit disassembly and MOX fuel missions can be done safely at Pantex. Furthermore, the DOE has stated that the anticipated cost differences between the sites being considered for these new missions are insignificant relative to the anticipated margin-of-error of the financial analysis. In the absence of major discriminators between the sites, the decision is likely to be very political.

Trent Sisemore
City Commissioner
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TXD27

TXD27-1

Alternatives

DOE acknowledges the commentator's support for siting the pit conversion and MOX facilities at Pantex. 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. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Hon. Trent Sisemore
Page 2

The dual-track method of plutonium disposition is the best way for the United States and Russia to permanently reduce the amount of weapons grade plutonium in their nuclear stockpiles. This is an important task but it will be a controversial process because of the dedicated efforts of anti-nuclear activists around the globe. While it is my opinion that many of these activists are opposed to anything nuclear, they seem particularly opposed to the use of plutonium as a fuel in nuclear reactors. Keeping this controversy in mind, it is important for the Department to develop a program that has broad ranging support among Democrats, Republicans, state leaders, local officials, Indian tribes, and labor unions in many states to assure that this important function gets the funding in Congress necessary to carry out the program. Pantex offers strong, bi-partisan support from local, state and federal officeholders and the labor movement.

The Department has already chosen the Savannah River Site in South Carolina for the important task of immobilizing so called "non-pit" plutonium. In addition South Carolina has been chosen to produce tritium for weapons in the future. Since South Carolina has already received a great deal of new work, the Department should now place some new missions at Pantex. The powerful support of the Texas Congressional delegation will be crucial in getting this program funded. I encourage you to solidify that support by naming Pantex as the preferred alternative site for the pit disassembly and conversion and MOX fuel missions.

Thank you for the chance to be heard on this issue.



Trent Sisemore
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TXD27

TXD27-2

DOE Policy

DOE acknowledges the commentor's support for 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 U.S. Congress is supportive of DOE's efforts to implement U.S. nonproliferation policy.

TXD27-3

Alternatives

As indicated in the revised Section 1.6, SRS is preferred for the proposed surplus plutonium disposition facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure.



AMARILLO ASSOCIATION OF REALTORS[®], INC.
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(806) 358-7738 • Fax (806) 358-4140

RESOLUTION

Whereas, the Department of Energy is seeking comments on the Surplus Plutonium Disposition Environmental Impact Statement; and
Whereas, the Secretary of Energy should name the Pantex Plant as the preferred site for the Plutonium Conversion Facility in the final Surplus Plutonium Disposition Environmental Impact Statement;

NOW THEREFORE,

Be it the Board of Directors of the Amarillo Association of REALTORS[®] which represents over 500 members, hereby unanimously support the Pantex Plant in Texas as the Department of Energy's location for the Plutonium Conversion Facility in the final Surplus Plutonium Disposition Environmental Impact Statement.

As REALTORS[®], we believe the Pantex Plant is the preferred site for the Plutonium Conversion and Conversion Facility provided such missions are done in a safe and environmentally-friendly manner.

In view of the following facts:

- (1) The primary mission of the Pantex Plant is to take spent nuclear weapons as part of the United States' obligation under the START treaties and to safely store them until they can be dismantled. The plant's mission is to prevent the risk of classified weapons components falling into unfriendly hands.
- (2) For nearly half a century, the employees of Mason & Hanger Corporation have handled and worked with pits without ever exposing the environment or the residents of the Texas Panhandle to any contamination from plutonium. To further enhance employee and public safety, Mason & Hanger has implemented a Voluntary Protection Program and employees at Pantex have full-time union safety officers to whom they can raise safety concerns.
- (3) The security force at Pantex has successfully guarded highly classified weapons components since 1951. Recently, the Pantex guard force was rated the highest in the DOE complex. DOE should protect the highly classified pits at the facility with the best guard force, which is Pantex.
- (4) And finally, repeated public opinion polling has shown support for the Pantex Plant to be in the 85% range across the states of Kansas, Texas and several counties. In addition, Pantex has outstanding support from the elected officials of the states of Kansas and Texas. The DOE should support the Pantex Plant as the preferred site for the Plutonium Conversion and Conversion Facility in the final Surplus Plutonium Disposition Environmental Impact Statement.

The Pantex Plant has played an invaluable role in the United States' history and should be the Department of Energy's location for the Plutonium Conversion and Conversion facility.

Approved by the Board of Directors on the 16th day of July 1998,


RANDY JEFFERS, CEO, GRI - PRESIDENT



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TXD51

TXD51-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. Analyses in Chapter 4 of Volume I indicate that impacts of operating the pit conversion facility on health, safety, and the environment at Pantex would likely be minor. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses (including analyses of transportation risks), technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

A RESOLUTION OF THE AMARILLO CHAMBER OF COMMERCE
BOARD OF DIRECTORS IN SUPPORT OF
PANTEX

WHEREAS, the Pantex plant currently employs 2869 Amarillo-area residents and puts over \$200 million directly into our area, and is responsible for about one out of every ten Amarillo-area jobs

WHEREAS, Pantex has outstanding support from the residents in the area. Pantex enjoys strong support from local and state elected officials and the Texas congressional delegation. Pantex shows 80% support among area residents.

WHEREAS, Pantex employees have more experience in handling plutonium pits than any other site in the nuclear weapons complex.

WHEREAS, Pantex requires no off-site shipment of pits, decreasing the risk of classified weapons parts falling into unfriendly hands.

WHEREAS, Pantex has more than adequate storage space for converting plutonium.


WHEREAS, Pantex guard force is the highest rated in the nuclear weapons complex. Pantex has an outstanding safety record. The employees at Pantex have full-time union safety officers to whom they can raise safety concerns, and Mason & Hanger Corporation has implemented a Voluntary Protection Program to further enhance employee and public safety.

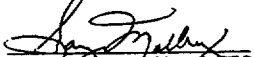
WHEREAS, Pantex employees have safely handled, worked with, and stored pits. The Savannah River Site has a history of radioactive contamination of the environment.

NOW, THEREFORE, BE IT RESOLVED that the Amarillo Chamber of Commerce Board of Directors supports the disassembly and conversion of nuclear weapons plutonium components (pits) program to be assigned to the Pantex plant.

BE IT FUTHER RESOLVED that the Amarillo Chamber of Commerce encourages the Texas Congressional Delegation to continue to support and work toward this goal.

ADOPTED this 10th day of August, 1998


David Wilks, Chairman of the Board


Gary Moberg, President & CEO

TXD50

TXD50-1

Alternatives

DOE acknowledges the commentors' support for siting the pit conversion facility at Pantex. Analyses in Chapter 4 of Volume I indicate that impacts of operating the pit conversion facility on health, safety, and the environment at Pantex would likely be minor. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses (including analyses of transportation risks), technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.



General SPD EIS and NEPA Process

DOE acknowledges the commentor's support for DOE's efforts in coming to fair and well-reasoned decisions regarding surplus plutonium disposition. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

To: U.S. Department of Energy
From: Dr. M. Karen Ruddy, Director of the Electronic Resource Library (ERL) Project
at Amarillo College found at <http://plutonium-erl.actx.edu>
Date: August 27, 1998
RE: Comments on the Pantex Missions

Dear Sir or Madam:

I believe that this country does indeed face a clear and present danger in the fact that plutonium disposition and waste materials in our environment need to be addressed. The issues need to be based on sound and reliable scientific and technical research (an exemplary effort in Amarillo is the work being carried on through the Amarillo National Resource Center for Plutonium).

I commend the DOE for the policy of openness over the last five or six years. I deal with the plutonium literature daily in my role as Director of the Electronic Resource Library - a library dedicated to the scientific and technical study of plutonium - use, disposition, storage, transportation, health policy and history, and I know that most of the environmental problems in regard to the USDOE policies have come about because of the Cold War legacy.

I also believe that the future energy source in the world is going to be nuclear and believe any decisions made today must keep that reality in mind. Ralph Nader used to be right, now he is old and confused.

I deplore the representation in the Amarillo meetings of the "left-over-hippies" who have no right to represent the majority of the citizens in Amarillo and the Panhandle of Texas. I think it is immoral for the areas that the government has poured money into over the years (Yucca Mt. in Nevada for example) to now be against the deployment of these areas to serve their purpose. I hope you disregard their comments and follow scientific and technical research to make your decisions.

Mr. Richardson was here in Amarillo yesterday and I wish I could have met him. I am comforted that he is the new Secretary of Energy and believe he will make the hard decisions for the good of all.

We (the Electronic Resource Library (ERL)) are collaborating with OSTI to digitize paper documents that they provide to us and we hope to acquire a microfiche scanning machine through a grant to the IMLS program in the Executive Office. We will be able to then digitize the DOE OSTI microfiche collections and retrieve documents stored only on that media.

We serve Pantex, Amarillo College, the Amarillo and Panhandle community and the researchers and scientists at UT, A&M and Texas Tech through the ERL services and resources and are proud to be part of the great effort to help our country as Pantex has done in the past.

FD151

FD151-1

Alternatives

DOE acknowledges the commentator's support of DOE and its surplus plutonium disposition program.

We collaborate with Los Alamos, with the Lovelace Institute, with the FOIA program, the DOE Reading Room program (interactively with the one here at Amarillo College) and with the WIPP site through other regional community colleges (i.e. New Mexico Junior College in Hobbs, NM) to obtain plutonium-related documents and joint grant proposals such as the IMLS (Institute of Museums and Library Services).

I believe that additional missions should come to Pantex for the following reasons:

1. You have incredible community support in Amarillo and surrounding areas.
2. The workforce is highly skilled in this area due to the past and present programs at Amarillo College (attested to by the recent announcement that Bell Helicopter is going to build their new aircraft here in Amarillo).
3. The pits are already here and as I understand the ARIES (Advanced Recovery and Integrated Extraction System) process, it includes "nuclear weapons dismantlement, reduction, and processing with minimal additions to the nuclear waste stream." This quote comes from a document found in the Electronic Resource Library collection.
4. The Pantex solution would meet the SPD-EIS mission of reducing the threat of nuclear weapons and the proliferation threat by avoiding transportation of pits in their "weapons-ready" form.
5. Spreading the dis-assembly program around (i.e. So. Carolina, Texas, New Mexico) would garner more support for your ultimate programs of storage and disposition.
6. Cost is turning out to be a non discriminating factor in the location decision.
7. The Amarillo National Resource Center for Plutonium (funds the ERL project through competitive grants) is a strategic social, political, educational, and research variable in this area - as in just three short years, the ANRCP has helped "thinking and reasoning" people in this area sort through the mire and confusion of exponentially exploding information to get to the facts, be more assured and make better decisions.
8. The Texas Energy Conservation program environmentally monitors the Pantex operation and helps ensure a safe and environmentally sound operation.
9. The safety and security record of Pantex.
10. Most important, I believe we must ACT SOON on plutonium disposition with all the ramifications in Russia and the rest of the world - trusting that you in the "drivers seat" of this great mission have secured our national future and act with the knowledge that plutonium must indeed be turned into plowshares for "planting and harvesting" of the energy needs of the future.

Thank you for this opportunity to comment on this potential program. We love our country, support our government and want to work toward world peace and prosperity.

Sincerely,
M. Karen Ruddy, Ph.D.
Director, Electronic Resource Library Project at Amarillo College
Amarillo College
Amarillo, TX 79189
(806) 371-5148 office
e-mail: mkruddy@actx.edu

FD151

FD151-2

Alternatives

DOE acknowledges the commentor's support of expanded missions at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses (including analyses of transportation risks), technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Amarillo Economic Development Corporation

Comments of Debra Ballou Regarding the DOE Surplus Plutonium Disposition Draft Environmental Impact Statement

My concern today is with our area's future. While I am proud of our area's accomplishments in the field of economic development, I am still concerned with the long-term future of Pantex. Pantex is such a large force in our local economy that negative impacts from Pantex can essentially take away the gains we may make in other areas.

In essence, if the AEDC brings a new employer to town it may be like taking a step forward. However, if Pantex fails to grow, it may be like taking two steps backward. One step forward and two steps backward is no way to get where you want to go.

Pantex has been a great employer in the Texas panhandle for many years. The spin off of Pantex dollars in the local economy provides employment opportunities in all sectors of the economy. The jobs at Pantex and the skilled service jobs that result in the economy are the kind of opportunities that keep people who are raised in Amarillo from taking their skills to larger metro areas where jobs are abundant. We cannot afford to take two steps back for every one forward.

Pantex has operated safely for many years, and its excellent track record should weigh heavily in the decision making on the location for plutonium disposition missions. This area, and its elected officials at all levels, support Pantex overwhelmingly. Considering this area's strong support for Pantex and the good fit between these missions and Pantex's current mission, I strongly urge the Secretary of Energy to choose Pantex for Pit Disassembly and Conversion and MOX Fuel Manufacturing.

Debra Ballou
Secretary, Board of Directors
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TXD53

TXD53-1

Other

DOE acknowledges the commentor's support of expanded missions at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

TXD53-2

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion and MOX facilities at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Amarillo Economic Development Corporation

Comments of Michael Bourn Regarding the DOE Surplus
Plutonium Disposition Draft Environmental Impact Statement

The Amarillo Economic Development Corporation is dedicated to expanding and diversifying the economy in the Amarillo area. We focus on basic employers, that is employers who derive their income from outside of our economic region. We have assisted many local basic employers and we continue to recruit new basic employers to our community. Because of our extensive work with hundreds of existing businesses and those that have considered Amarillo over the past eight years, we have gathered extensive, detailed knowledge of our area's business climate.

Beyond the quantitative measures such as our very low utility costs, affordable and available labor, and low cost of living lies the real key to this region's success -- we have a truly outstanding workforce. As I mentioned, the quality of our workforce transcends the quantitatively measurable. Nevertheless, our quality workforce is very real. Recently, Bell Helicopter announced plans to locate the assembly plant for the V-22 Osprey Tiltrotor Aircraft in Amarillo. In announcing that decision, one of the key factors mentioned was the great skill of our workforce. But Bell did not make that decision just based on our word, they had twenty years' experience with a facility in Amarillo from the late 1960s to the late 1980s.

The Department of Energy should likewise recognize the skill of Amarillo's workforce when choosing its location for plutonium disposition missions. And the disassembly of plutonium pits should rightfully be seen as a logical extension of the weapons disassembly work already performed by the highly skilled workers at Pantex. The MOX mission also makes sense to be performed within the high security areas at Pantex.

Michael R. Bourn
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TXD30

TXD30-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion and MOX facilities at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Mr. Michael R. Bourn
Page 2

The controversial aspect of using plutonium as a fuel should also be considered. As we look at our neighbors to the west who are trying to open the WIPP site, we can see that political controversy can cause enormous delays in scientifically sound projects. While I believe the MOX program to be technically sound and the best policy for the United States, I also believe that the current timetable for implementation of MOX manufacturing is not realistic. The program could be delayed for years over political controversy regarding our nation's policy toward nuclear energy.

Given the likelihood of delays in the MOX program, the DOE should take an affirmative step in demilitarizing its surplus weapons components by putting the Pit Disassembly and Conversion Facility into operation as quickly as can safely be done. This work can be done best, and with the least likelihood of political delays, at the Pantex Plant. I therefore urge the Secretary of Energy to name Pantex as the sole preferred alternative for Pit Disassembly and Conversion. Furthermore, I would ask that Secretary Richardson to re-examine the decision made by Secretary Peña to locate the MOX facility at the Savannah River Site. In light of the controversy likely to surround the MOX program, a final decision on site location for that facility should be made after the site for the pit disassembly mission has already been determined.

Thank you for the chance to make comments on this very important issue.

Michael R. Bourn
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TXD30

TXD30-2

DOE Policy

DOE acknowledges the commentor's concern over potential controversy surrounding MOX fuel fabrication. The goal of the surplus plutonium disposition program is to reduce the threat of nuclear weapons proliferation worldwide by conducting disposition of surplus plutonium in the United States in an environmentally safe and timely manner. Converting the surplus plutonium into MOX fuel and using it in domestic, commercial reactors is an effective way to accomplish this.

Further, selection of the disposition technology (immobilization or MOX approach) should not impact the pace of pit declassification. Pit declassification would likely depend on the agreements reached with Russia. In late July 1998, Vice President Gore and Russian Prime Minister Sergei Kiriyenko signed a 5-year agreement to provide the scientific and technical basis for decisions concerning how surplus plutonium will be managed. This agreement enables the two countries to explore mutually acceptable strategies for safeguarding and dispositioning surplus plutonium.

As indicated in the revised Section 1.6, SRS is preferred for the proposed surplus plutonium disposition facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure.

Amarillo Economic Development Corporation

Comments of Gilbert Guzman Regarding the DOE Surplus
Plutonium Disposition Draft Environmental Impact Statement

Thank you for the chance to express the views of the Amarillo Economic Development Corporation regarding the surplus plutonium missions being considered for Pantex. The Amarillo Economic Development Corporation (AEDC) serves as the development arm of the City of Amarillo local government. The Corporation is funded by a half-cent sales tax and its board is appointed by the elected Mayor and City Commissioners of the City of Amarillo. As a public corporation our activities are carried out with the public interest first and foremost in mind.

Since the early part of this decade, the AEDC has striven to bring new work to the Pantex Plant in order to enhance the manufacturing base of our community. When measured by payroll and economic impact, Pantex is the largest manufacturer in a region comprised of over 50 counties in the Texas panhandle and south plains. Our support for new missions at Pantex is contingent on those missions being done in a manner that does not endanger human health or the environment.

The AEDC strongly supports the selection of Pantex as the site for the Pit Disassembly and Conversion Facility and MOX fuel manufacturing mission. These new missions will provide jobs for Pantex employees who might otherwise not have jobs as the disassembly work the plant now performs winds down. Pantex has been an important part of this community for over 50 years. We hope that with the addition of plutonium disposition missions, Pantex continues to be a major economic presence in this area for the next 50 years.

Gilbert Guzman
President
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TXD31

TXD31-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion and MOX facilities at Pantex. Analyses in Chapter 4 of Volume I indicate that impacts of operating these facilities on health, safety, and the environment at Pantex would likely be minor. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Amarillo Economic Development Corporation

Comments of Glenn McMennamy Regarding the DOE Surplus Plutonium Disposition Draft Environmental Impact Statement

The people of the Texas panhandle are proud of the Pantex plant. They support the current plant operations and the expansion of the activities at Pantex. The payroll of Pantex pours hundreds of millions of dollars into the regional economy. All told, Pantex is responsible for about one out of every 10 jobs in the Amarillo metro area.

Today, you will hear from many people who come from different perspectives. Let me remind you of the overwhelming support the Department of Energy has in this area. Repeated polling has shown more than 80% of the residents of the area support Pantex. Our elected officials at the local, state and national level all support Pantex. Pantex is supported by Republicans, Democrats, Labor and Business. All demographic groups in our area support Pantex. I have been involved in local, state and national politics for many years and few of the candidates or issues with which I have dealt have ever had the broad support that Pantex enjoys.

Strong support is important for the DOE. In years past, the pressures of the Cold War made big budgets standard for the Department. In the post-Cold War era, the DOE budget receives an enormous amount of scrutiny. Different sites in the nuclear weapons complex have been reduced to fighting one another for new work and even for funding for the cleanup of heavily contaminated sites in Idaho, Colorado, Washington, and South Carolina. With all this budgetary scrutiny the DOE should seek the help of its political friends.

Glenn McMennamy
Vice President
Amarillo Economic Development Corporation
Bank One Center, Suite 1503
600 S. Tyler Street
Amarillo, TX 79101
(806) 379-6411

TXD33

TXD33-1

Alternatives

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at Pantex, as well as the observations regarding broad political and community support. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Mr. Glenn McMennamy
Page 2

The Texas congressional delegation overwhelmingly supports the expansion of Pantex. The Governor and Lt. Governor of Texas support the expansion of Pantex. The AFL-CIO supports the expansion of Pantex.

These are very important constituencies to the Department of Energy. Their will should be carefully considered when deciding where to locate new missions. We know this work will be done in a safe manner. We know we are the right place to perform these missions. We will be very disappointed if the DOE fails to name Pantex as the site for this new work. The Texas congressional delegation will also be very disappointed if Pantex is not selected. I sincerely hope the DOE makes the right choice and decides to locate these new missions in Texas.

1

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TXD33

Amarillo Economic Development Corporation

**Comments of George Raffkind Regarding the DOE Surplus
Plutonium Disposition Draft Environmental Impact Statement**

I appreciate the chance to speak with you today about the draft Environmental Impact Statement on Surplus Plutonium Disposition. The Amarillo Economic Development Corporation (AEDC) has worked for years to try to bring new work to Pantex. We have always insisted, and continue to insist, that new work coming to Pantex be environmentally sound and a good "fit" with the existing missions. The Pit Disassembly and Conversion and MOX fuel missions meet both those criteria. Therefore, I strongly encourage the Secretary of Energy to name Pantex as the sole preferred alternative for these plutonium disposition missions.

As a retailer in Amarillo, I understand the profound impact of agricultural income on the entire economy of this region. While I am not directly involved in agriculture, I know that my business' sales decline when times are hard for farmers and ranchers. I also know that for more than half-a-century, the presence of Pantex in this area has never led to reduced crop yields or reduced prices for commodity crops or livestock. The economy of all of West Texas is presently feeling the effects of drought and the subsequent decrease in farm and ranch income. Sales growth in the retail sector in Amarillo and surrounding towns has slowed. Even though the airlines are carrying record loads on a national basis, airline loads are down in Amarillo, Lubbock, and Midland. We all recognize that the rural and urban economies of this area are wholly and inextricably linked.

George Raffkind
Member, Board of Directors
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Amarillo, TX 79101
(806) 379-6411

TXD32

TXD32-1

Alternatives

DOE acknowledges the commentator's support for siting the pit conversion and MOX facilities at Pantex. Analyses in Chapter 4 of Volume I indicate that impacts of operating these facilities on health, safety, and the environment at Pantex would likely be minor. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Mr. George Raffkind
Page 2

The proposed new missions at Pantex will lead to economic growth in our area, without harming agriculture. I would not support a project that negatively impacts agriculture, because my own livelihood is affected by the condition of the agricultural sector of the economy. Moreover, the AEDC receives a great deal of sales tax revenue from persons who live in rural areas and shop in Amarillo. We have no intention of growing one part of the economy at the expense of another.

I hope that the Secretary of Energy will keep in mind that the vast majority of the people in Carson, Potter and Randall Counties support agriculture and the Pantex Plant. Most people in this area recognize that both are essential to the well-being of our economy. I urge the Secretary to name Pantex as the sole preferred alternative for Pit Disassembly and Conversion and MOX Fuel Manufacturing.

George Raffkind
Member, Board of Directors
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TXD32

Remarks
For DOE Hearings on Pantex
August 11, 1998, Amarillo, Texas
By Gareth von Netzer
Publisher, Amarillo Globe-News

Thank you for allowing me to
present these remarks at today's
hearing.

My comments are very brief.

They focus on the practical and
cost-effective reasons the Pantex
Plant should be awarded the
mission of disassembly and
conversion of nuclear weapons
plutonium pits.

First, the pits already are
securely stored at the Pantex Plant.
The plant's security force is one of
the finest paramilitary forces in
the world, and it's the highest
rated among all the DOE complex
facility forces.

TXD54

TXD54-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Page Two

Why would the DOE even consider the risks and added expense of transporting plutonium pits to another site?

Second, the Pantex Plant already has the trained and highly qualified workforce to do the disassembly work. Workers at another site would have to be trained and would lack the background available already at the Pantex Plant.

Third, the Pantex plant's track record with handling and storing plutonium pits is proven, over many years, and without incident. In fact, the Pantex Plant has the finest safety and environmental record of all the major DOE sites in the nuclear weapons complex.

Fourth, consider the region's and city's strong support for the Pantex Plant, what it does and how it does

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TXD54

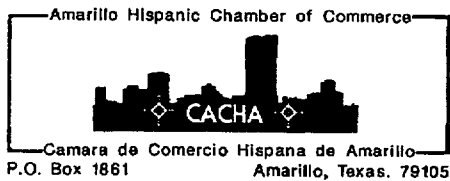
Page Three

it. Polls have shown for many years that more than 8 of 10 people strongly support the Pantex Plant and its role in our national defense.

These are just some of the reasons why the DOE should locate the disassembly mission at Pantex.

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TXD54



A RESOLUTION OF THE AMARILLO HISPANIC CHAMBER OF COMMERCE
BOARD OF DIRECTORS IN SUPPORT OF
PANTEX

WHEREAS, the Pantex plant currently employs 2869 Amarillo-area residents and puts \$200 million directly into our area, and is responsible for about one out of every ten Amarillo area jobs.

WHEREAS, the Pantex plant consistently employs Amarillo-area Hispanics at all levels, and consistently promotes minority business procurement opportunities.

WHEREAS, Pantex employees have more experience in handling plutonium pits than any other site in the complex.

WHEREAS, Pantex has more than adequate storage space for converting plutonium.

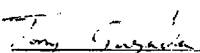
WHEREAS, the Pantex guard force is the highest rated in the DOE complex. Pantex has an outstanding safety record. The employees at Pantex have full-time union safety officers to whom they can raise safety concerns, Mason & Hanger Corporation has implemented a Voluntary Protection Program to further enhance employee and public safety.

WHEREAS, Pantex employees have safely handled, worked with, and stored pits. The Savannah River Site has a history of radioactive contamination of the environment.

NOW, THEREFORE, BE IT RESOLVED that the Amarillo Hispanic Chamber of Commerce Board of Directors support the disassembly and conversion of nuclear weapons plutonium components (pits) program to be assigned to the Pantex plant.

ADOPTED this 11 day of August, 1998


Gilbert Guzman, Chairman of the Board

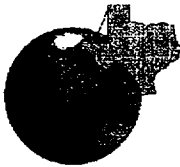

Tony Quezada, President

TXD36

TXD36-1

Alternatives

DOE acknowledges the commentors' support for siting the pit conversion facility at Pantex. Analyses in Chapter 4 of Volume I indicate that impacts of operating the pit conversion facility on health, safety, and the environment at Pantex would likely be minor. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.



Amarillo National Resource Center for Plutonium
A Higher Education Consortium of The Texas A&M University System, Texas Tech University, and The University of Texas System

Comments of Richard Hartley, Ph.D., Technical Director of the Amarillo National Resource Center for Plutonium, August 11, 1998, at the Amarillo, Texas Public Meeting to discuss the Surplus Plutonium Disposition Draft Environmental Impact Statement (EIS).

It is the Center's mission to provide objective technical advice to the elected officials, regulators, and citizens of Texas on missions, like pit conversion and MOX, that potentially could come to Pantex. This independent technical advice is obtained by using academic experts from the consortium universities in Texas, (A&M, UT, TTU). We also work closely with the agricultural community through the Agriculture Research & Ag Extension Service here in the Panhandle of Texas.

One project the Center was asked to perform by the governor's office ^{was to provide} ~~was to provide~~ an independent safety and health analysis of both the plutonium conversion mission and MOX at Pantex and a review of the EIS on behalf of the state of Texas. Our technical team included:

- Dr. Ian Hamilton, Texas A&M University, certified health physicist
- Dr. Randy Charbeneau, University of Texas, professional environmental engineer
- Dr. John Sweeten, agricultural engineer with Ag Extension Service
- Dr. Bobby Stewart, West Texas A&M University, agricultural scientist
- Dr. Jim Rock, Texas A&M, certified industrial hygienists
- Dr. Paul Vaughn, Texas Tech University, agricultural communications specialist
- Dr. James R. Clark, West Texas A&M, Dryland Wheat Institute
- Dr. Nolan Clark, Director, USDA Lab in Bushland, Texas

The results of that independent study were provided to elected officials, Texas regulators, and citizens of Amarillo in Nov. of 1997. The study was conducted by expert professional environmental engineers, certified health physicists, certified industrial hygienists, and agricultural engineers and scientists. The conclusion of that study was that the risks associated with the new missions is comparable to the risk of current operations at Pantex and there are no impacts on water resources, water quality, no impact on soil or air resource.

We were also asked by the governor's office to have the university principal investigators of that study review the draft Surplus Plutonium Disposition Environmental Impact Statement. As in the risk characterization effort presented in November, the researchers find that there are no significant environmental or safety impacts associated with the pit disassembly conversion or MOX mission coming to Pantex.

The ANRCP consortium represents substantial research capabilities that include: 1) 29 Campuses with 24,276 faculty, 259,534 students, and a \$6.5 B combined budget, 2) academic credibility and independent verification, and 3) education based program that supports the Secretary of Energy's education initiative.

TXD43-1

Alternatives

DOE acknowledges the findings of the ANRCP's study in support of pit disassembly and conversion and MOX fuel fabrication at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

Comments on the
Surplus Plutonium Disposition Draft Environmental Impact Statement
By

K. L. Peddicord
Amarillo National Resource Center for Plutonium

Presented at the SPDEIS Hearing
Amarillo, Texas
August 11, 1998

A key element in the surplus plutonium disposition mission will be provisions to allow for either bilateral inspections or multilateral inspection of excess weapons material. These functions contribute to important U.S. policy issues on transparency and openness relating to the disposition of surplus weapons materials both in the United States and the Russian Federation. Bilateral inspection with Russia will be important to develop a mutual level of confidence with the Russians for the entire disposition effort. Such bilateral inspection agreements will also provide confirmation to the U.S. through our inspection of Russian facilities that their efforts are proceeding accordingly. Likewise, potential multilateral inspection under the auspices of the International Atomic Energy Agency in Vienna, Austria, will give assurances to the global community of U.S. leadership in this key endeavor.

While the inspection function will be an ancillary enterprise, it also will have some environmental impact. Accommodations must be made for the facilities, equipment and individuals performing this role. These requirements can presumably be handled in a straightforward way with minimal environmental disruption.

In terms of the inspection function and its relation to the Pit Disassembly and Conversion Facility (PDCF), the input material to the PDCF will be in forms which are classified. However, the output material will be either converted to a metal "hockey puck" or plutonium oxide powder. Subsequent storage of this material will not be of a classified nature and will be subject to international inspection. It is noted that by locating the PDC Facility at the Pantex Plant, the necessary Perimeter Inspection, Detection and Alarm System (PIDAS) is in place to guarantee the security of weapons grade material. Reconfiguration of the existing areas at Pantex could be done in a straightforward way to allow for the inspection requirements while assuring that classified information and material is not compromised.

TXD48

TXD48-1

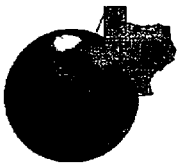
Nonproliferation

DOE acknowledges the commentator's support for siting the pit conversion facility at Pantex. Once the United States and Russia complete an agreement providing the basis for exchanging classified nuclear information, the procedures to be used for inspection of pits in storage could potentially be adapted to contribute to bilateral monitoring of the pit conversion facility. International monitoring and inspection of the unclassified plutonium would also allow the United States and Russia to demonstrate to each other and to the international community that disposition was being carried out under stringent nonproliferation controls, and that the excess plutonium was not being diverted for reuse in weapons. Accommodation for international inspection of the unclassified material was incorporated in the design of the pit conversion facility, as shown in Figure 2-7. The MOX facility would be a separate function and would only process unclassified materials. Accommodation for international inspection was incorporated in the design of the facility, as shown in Figure 2-14. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

A second aspect of the inspection requirements is also worth noting. As mentioned above, it is the material produced by the PDCF which will be subject to inspection. This precludes the possibility, which has been suggested elsewhere, that a fully integrated facility might be used which will have weapons pits as the input and MOX fuel as the output. Such a facility would not allow for the inspection of the product of the pit disassembly and conversion steps. If it were to be proposed at a Russian installation, presumably such a fully integrated approach with restrictions for the inspection of unclassified material would not be acceptable to the United States. We would want to be able to assure that the MOX fuel coming out was the result of the pits going in. As a result, separation of the pit conversion function from the MOX fuel fabrication will be necessary.

1

The Pantex Plant provides the opportunity for a facility for pit disassembly and conversion which meets, in a straightforward way, the requirements for key bilateral and multilateral inspection while minimizing the number of steps for the handling of sensitive weapons components. The selection of Pantex for the PDC Facility should assure expediency in carrying out U.S. and international nonproliferation goals. Bilateral and IAEA requirements could be more easily facilitated at Pantex thereby implementing pit disassembly and conversion more quickly, entering into an agreement to reach this same result with the Russians, and achieving the critical goal of timeliness which is a key factor in the surplus plutonium disposition mission.



Amarillo National Resource Center for Plutonium
A Higher Education Consortium of The Texas A&M University System, "from Earth to Space, and The Universe of Texas Space"

September 8, 1998

Mr. Bert Stevenson
NEPA Compliance Officer
US Department of Energy
PO Box 23786
Washington, DC 20026-3786

Dear Mr. Stevenson:

The Center is pleased to publish in its Center Report Series ANRCP-1998-11, "Routing of Radioactive Shipments With Time-Varying Costs and Curfews," by Laurie A. Bowler and Dr. Hani S. Mahmassani. This is key research that contains vital information for a key audience, and is the type of research the Center supports.

Please do not hesitate to contact us if any further information from the Center would be helpful.

Sincerely,

Angela L. Woods
Technical Editor

Enclosure

600 South Tyler • Suite 800 • Amarillo, TX 79101 • 806-376-5533 • Fax 806-376-5561

MD175

MD175-1

Transportation

DOE appreciates publication of the referenced report by ANRCP.

Michael Andrew
3512 Rutson
Amarillo, TX 79109

Ph: 806-359-6709
E-Mail: mandrew@arn.net

Title: Year 2000 considerations for the study.

As a concerned taxpayer and one knowledgeable about the Year 2000 crisis I am concerned with the report that lists Pantex and the Savannah River Sites as "equally preferred sites" for the DOE's Pit Disassembly and Conversion Facility.

As a proponent of Pantex and a resident of Amarillo I have seen the proactive approach Pantex has had on environmental impacts and just as critical the appropriate use of our tax dollars. I can not say the same for the Savannah River Site. Specifically I would like to cite two instances of many that drive home my point.

First, Savannah River was recently noted in several national Federal Computing publications as having abandoned a multi million dollar project to modernize their computer systems after spending in excess of \$10 million on the effort. This upgrade was also to provide replacements for a number of systems that will not withstand the Year 2000, which is a little more than a year away.

Second, Savannah River was noted as having major deficiencies meeting dates in several of their systems including the Defense Waste Processing Control Systems. This prompted a special write-up in a recent quarterly report to the Office of Management and Budget from the DWH noting "the CIO determined that these justifications did not contain compelling reasons for granting exceptions." Savannah Rivers action in part caused a funding restriction for the Environmental Management branch of DOE imposed by OMB to remain in effect.

In summary I do not believe both are "equally" prepared to conduct work on January 1, 2000 much less conduct it safely and efficiently. Recognizing the importance on microprocessors in todays manufacturing processes and the unpredictable effects of ignoring Year 2000 problems I believe that if further evaluations were conducted into the readiness of each facility for the coming millennium that Pantex would be the clear choice.

Respectfully,
Michael Andrew

FD110

FD110-1

Other

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. DOE is working diligently to correct the Y2K problems in all of its computer systems and will not operate any facilities subject to such problems. Construction of the pit conversion facility is scheduled to begin in 2001, and operations are scheduled to begin in 2004; therefore, the computer systems for the new facilities would not be affected by the Y2K problem.

As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

<input checked="" type="checkbox"/>	YES!	Keep Texas Panhandle water, air, and soil safe from radioactive pollutants	1
<input checked="" type="checkbox"/>	NO!	To any plutonium processing in the Texas Panhandle	2
<input checked="" type="checkbox"/>	YES!	To minimal handling and processing of plutonium and other nuclear materials	3
<input checked="" type="checkbox"/>	NO!	To converting military plutonium for use in mixed oxide (MOX) fuel	4
<div>Signed: <i>Charge the companies that made the profit for the clean up. Too many cooks spoil the brew.</i></div>			5

CD1328

CD1328-1

Alternatives

Sections 4.17 and 4.26.3 describe the potential effects of the maximum impact alternative on air quality, water resources, and soil. These analyses indicate that the impacts of construction and normal operation of the pit conversion and MOX facilities on air, water, and soil at Pantex would likely be minor.

CD1328-2

Alternatives

DOE acknowledges the commentor's opposition to the surplus plutonium disposition program at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

CD1328-3

DOE Policy

The goal of the surplus plutonium disposition program is to reduce the threat of nuclear weapons proliferation worldwide by conducting disposition of surplus plutonium in the United States in an environmentally safe and timely manner. DOE is committed to public and worker safety during the construction, operation, and deactivation of the proposed surplus plutonium disposition facilities, and would implement appropriate controls and procedures to ensure compliance with all applicable Federal, State, and local laws, rules, regulations, and requirements.

CD1328-4

MOX Approach

DOE acknowledges the commentor's opposition to the MOX approach to surplus plutonium disposition. 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.

CD1328-5

Cost

DOE conducted a competitive procurement process to acquire MOX fuel fabrication and irradiation services. The selected team, DCS, would design, request a license, construct, operate, and deactivate the MOX facility as well as irradiate the MOX fuel in domestic, commercial reactors. However, these activities are subject to the completion of the NEPA process.

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.

Yes, I think that the petroleum, the whatever it is, should be located at Pantex. Thank you.

1

PD013

PD013-1

Alternatives

DOE acknowledges the commentor's support for the surplus plutonium disposition program at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

Yes, I think they need to get rid of Pantex. It's bad for our crops and bad for our drinking water. Thanks.

1

PD019

PD019-1 **Alternatives**

DOE acknowledges the commentor's opposition to the continued operation of the Pantex Plant. It is inferred that this would include opposition to siting any of the proposed surplus plutonium disposition facilities at Pantex. The *Final Environmental Impact Statement for the Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Components* (DOE/EIS-0225, November 1996) was one of many references used during the development of this SPD EIS. Based on the information, analysis, and public comment contained in that EIS, DOE issued a ROD for the continued operation of Pantex. That EIS concluded that the continued operation of Pantex would have either minor or no impacts on the surrounding environment.

Yes, I just wanted to give my input on the deal that's going on about Pantex. And I'm all for it.

PD020

PD020-1

Alternatives

DOE acknowledges the commentor's support for the surplus plutonium disposition program at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

Other

PD026-1

DOE acknowledges the commentor's opposition to Pantex. The *Final Environmental Impact Statement for the Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Components* (DOE/EIS-0225, November 1996) was one of many references used during the development of this SPD EIS. That EIS concluded that the continued operation of Pantex would have either minor or no impacts on the surrounding environment. Based on the analysis and related public comment, DOE issued a ROD for the continued operation of Pantex.

I want to voice my opinion against Pantex. I think it is a dump about ready to explode and I think it is a hazard for the people that live in this area, not only for the people but for the cattle and the land. I think it needs to go, the sooner the better.

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PD026

Yes, I am an Amarillo resident since 1926 and I want to express my support for the Pantex and everything it has done and been in Amarillo. It has the best safety record of any company that's ever been here. I've toured the plant and enjoyed getting to see what we've heard about for many, many years. I also want to support the use of Amarillo facilities to do the plutonium research and the, something about making the MOX, what ever it is, the disassembly that doesn't make sense to ship it all across the country when it's already here, and you just have my family, all of us, our support and we're proud of you. Thank you for being here.

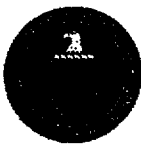
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PD028

PD028-1

Alternatives

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.



United States
Department
of Energy

Comment Form

NAME: (Optional) Robert D. Baker
ADDRESS: 104 River's Trail, Asheville, TN 37614
TELEPHONE: (844) 322-4502
E-MAIL: EBAKER4922@AOL.COM

It is my understanding that Savannah River has been announced by DOE to be the preferred location for the MOX fuel conversion site. Also that Savannah River and Pantex are equally preferred for the P.T. Disassembly and conversion site. Neither site has experience with MOX fuel fabrication nor P.T. Disassembly and conversion. However Pantex has years of experience with the pits during the weapon assembly-disassembly process and pit storage. The source material is primarily located at Pantex. The facilities for both the P.T. Disassembly and MOX fuel conversion have to be constructed and brought into operation. Logistically it doesn't seem to be economical to ship the source material to Savannah River for either the P.T. Disassembly or MOX fuel. Additionally when the fuel assemblies are fabricated they will have to be shipped around the country to the commercial reactors. Anasco is currently located and would seem to be the most economical site for these processes as well as the distribution point for the MOX fuel assemblies.

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TXD25

TXD25-1

Alternatives

DOE acknowledges the commentator's support for siting the pit conversion and MOX facilities at Pantex. Potential impacts from intrasite transfer of pits would likely be minor if Pantex were chosen as the site for pit disassembly and conversion because pits are currently stored there. However, potential impacts from transportation of plutonium dioxide between the MOX and pit conversion facilities would be minimized if SRS were chosen because SRS is the preferred location for both facilities. Transportation impacts are summarized in Chapter 4 of Volume I and Appendix L. As indicated in Section 2.18, no traffic fatalities from nonradiological accidents or LCFs from radiological exposures or vehicle emissions are expected. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses (including analyses of transportation risks), technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Ladies and Gentlemen, Strom Thurmond and the good people of South Carolina would have you believe that Savannah River is the place for the Pit Disassembly and Conversion Facility. This is obviously a political issue and I will address it as such. I will prove to you that Pantex, from a political standpoint, is far and above the only reasonable site for the Pit Assembly and Conversion mission. What is more political than safety at any Nuclear Facility?? The community and country as a whole scrutinize facilities such as Pantex and Savannah River on a continual basis. This has been the case for forty or fifty years. The threat of a radiation disaster is far more political than Strom Thurmond's current and albeit short-lived political agenda for Savannah River. I bring to you and can prove to you in black and white that the workers are healthier and therefore safer than those at Savannah River. I am a physician in the Occupational Medical Department. At Pantex we have a strong, active and progressive preventive medicine program which not only benefits the health of the employee (DOE's greatest asset), but the health of every mission at Pantex. With a strong interactive preventive medicine program, my department has been able to work closely with all aspects of Labor and Management to insure the health and safety of the workers. The health of the workers translates into the safe and healthy accomplishment of the variety of missions at Pantex. The medical department has worked diligently to interact on a continuous basis with every department on the plant. There are frequent visits directly with the workers and first-line supervisors to evaluate and resolve safety and health issues. There is one-on-one communication with the employees and the medical department. If meetings are needed to resolve issues, then there is no hesitation to meet with all players involved. The Medical department is blessed with a wealth of knowledge in preventive and radiation medicine. Our medical director is double boarded in both Preventive Medicine and Occupational Medicine. His area of interest is in radiation protection and he excels in his ability to take care of the employees at Pantex. The entire department is dedicated to the health of the workers and follows Dept. of Energy orders and regulations strictly. From a strong drug and alcohol program to the Graded Cardiac Exercise testing program, the Occupational Medical Dept. can insure you that the workforce is healthy, safe, and far superior to the workforce in Savannah River in their ability to undertake the Pit Disassembly and Conversion Mission. And is not the community and the country's concern over safe and healthy operation of a nuclear facility POLITICAL?? I think so!!! Political fifty years ago, political today, and yes, political years from now. Ladies and gentlemen of DOE, I challenge you to come to our medical dept. at Pantex and see how we run business, and then I challenge you to go to Savannah River and have them show you that their workforce is AS healthy and safe as those at Pantex. And I don't mean lip service, I mean cold, hard, substantiated data. From a political standpoint that holds up now and far into the future, I am convinced that you will find that Pantex is the ONLY politically correct site for the Pit Disassembly and Conversion Mission. Thankyou very much.

Kimberly Baker, M.D.
Pantex - Battelle
Box 30020, 12-2
Amarillo TX
79120-0020

TXD06

TXD06-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses (including analyses of human health risks to the public and workers), technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

IF NOT NOW...

140 ARBORWAY, STE. 6, BOSTON, MA 02130-3522 USA
(517) 524-1342 • Fax (517) 524-1347 • contact@ifnotnow.com

To: DOE, Fax 18008205156
From: If Not Now: A Citizens Lobbying Tool, EMail rep-info@ifnotnow.com
Date: Sep 16, 1998 7:04 GMT
Subject: Plutonium Disposal By Burning In Nuclear Reactors

If Not Now is a web-based citizen's lobbying tool. We are forwarding to you a letter from some of your constituents. At the end of this message there is a description of how our service works and how you can respond to your constituents.

Signatures as of Sep 16, 1998:
There were 2 new signers. Total signers to date: 4.

TOPIC: Plutonium Disposal By Burning In Nuclear Reactors

Dear DOE (Fissile Materials Program),

I am writing to oppose the current Department of Energy plan for plutonium disposition, which is based on mixed-oxide (MOX) fuel. MOX fuel is a bad idea. It is unproven technology as far as commercial reactors in the U.S. are concerned. MOX techniques for plutonium disposal are also slower and more expensive than immobilization techniques. In addition, the treatment of plutonium as an energy source sets a dangerous precedent for nuclear proliferation and the development of plutonium fuel economies. It is essential that the DOE do everything possible to discourage this proliferation.

New signers and comments:

Krista Bradford, New York, NY 10033
Danielle Benzinger, Arlington, TX 76006

DESCRIPTION OF IF NOT NOW SERVICE

Subscribers use If Not Now (www.ifnotnow.com) to get information about political and social issues of concern to them. The service also enables them to sign letters about these topics, which we then forward in consolidated form to officials such as yourself. It is important to emphasize that our subscriber list is authenticated through credit card verification, and only those signers who belong to your specific constituency are included in the signature list that you receive.

FD312

FD312-1

MOX Approach

DOE acknowledges the commentor's opposition to the MOX approach to surplus plutonium disposition. While it is true MOX fuel has not been produced or used commercially in the U.S., it has been produced and used in Western Europe. MOX fuel fabrication is not a new technology. This experience would be used for disposition of the U.S. surplus plutonium. 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.

Any difference between the cost of the hybrid approach and that of the immobilization-only approach would be marginal. 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.



140 ARBORWAY, STE. 6, BOSTON, MA 02130-3522 USA
(617) 524-1342 • fax (617) 524-1347 • contact@ifnotnow.com

An important feature of If Not Now is that we follow up on every action letter that we send, and we report how representatives, officials and others have acted on the issue. We also provide you with the opportunity to respond to your constituents (via a password-protected web server, to ensure that only legitimate responses are posted). Follow the directions below. Your letter will be posted without editing; your constituents will be able to view your response when they check the results of that action. (We regret that we cannot process responses received via fax or US mail.) We strongly encourage you to send us a response! Our subscribers are active, involved citizens who want to hear from you.

To respond to an action letter: fill out the form at <http://www.ifnotnow.com/respond.html> -- you will need to use your special key: PeeTJlwV. This key is valid for one-time use only. Please send questions or comments via email to: rep-info@ifnotnow.com.

FD312

Yes, this is George Buckenal, and I live in Amarillo. It's 3:00 on Monday afternoon the 17th of August and I want to call and let you know that I would much support the pit disassembly work that is being considered for Pantex. This is a needed program at Pantex and for the area. I know that we have been a great support in the past for Pantex out of Amarillo and we certainly would continue to be so. But we need that here in Amarillo for the jobs it would bring to Amarillo and also the work force could certainly utilize the extra income that would come out of that. But we would certainly support the pit disassembly work being considered. I wish you'd please bring it to Amarillo. Thank you very much.

1

PD027

PD027-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

This is Patty Buckenal and I live in Amarillo, TX and I would like to state for the record that I support the pit disassembly work going to the Pantex Plant here in Amarillo. Thank you.

1

PD029

PD029-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.



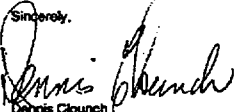
August 11, 1998

U.S. Department of Energy
Office of Fissile Materials Disposition
MD-4 Forrestal Building
1000 Independence Ave. SW
Washington, DC 20585

Dear Sirs,

I would like to take this opportunity to express my feelings about the location of the disassembly and conversion of nuclear weapons plutonium components ("pits") at the Amarillo Pantex plant. As a business owner and a citizen of Amarillo, I am totally in support of this function and hope you will consider the effort and the history of the Pantex plant in your decision making process for this site.

Sincerely,


Dennis Claunch
President

2400 West 7th • Amarillo, Texas 79106 • (806) 374-6262 • FAX (806) 374-7474 • 1-800-657-7131

FD149

FD149-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

3205 Kingston Rd
Amarillo, Texas 79106
8/11/98

To Whom It May Concern:

I favor the retention and development of the Pantex facility at the present location for the following reasons:

First, I think the relocation of the facilities would be an unnecessary cost to both the tax-payer and the employees of the plant. We do not need to spend the money on non-productive activities.

Second, I believe that the Pantex plant and the City of Amarillo have enjoyed many years of mutual benefit. The folk at the plant are desirable citizens and have a good work ethic.

Third, the central location of the plant, geographically, would discourage possible terrorist attacks yet is easily accessible by Interstate highway, railroad, and airways.

Charles A. Campbell

TXD22

TXD22-1

Alternatives

DOE acknowledges the commentor's support for the surplus plutonium disposition program at Pantex, which does not entail the relocation of any existing Pantex facilities. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

3205 Kingston Rd.
Amarillo, TX 79106
8/11/98

To Whom It May Concern:

I am a long-time resident of Amarillo and do favor the retention and development of the Pantex Plant at the present location for the following reasons:

1. The saving in money and effort to all concerned.
2. The geographically central location would aid in security of the plant.
3. The excellent transportation facilities (airways, railroads, and highways).
4. The positive impact upon the economy of Amarillo.
5. The vast majority favor the present location in spite of the loud clamor of a few special interest groups.

Sincerely yours,
Helen Campbell

TXD23

TXD23-1

Alternatives

DOE acknowledges the commentor's support for the surplus plutonium disposition program at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.



United States
Department
of Energy

Comment Form

NAME: (Optional) JAMES N. BROOKES
ADDRESS: 702 S. MADISON
TELEPHONE: (806) 373-4574
E-MAIL: URC.GNS@GYN.NET

I am a carpenter and the business representative for the Carpenters Union Local 665. I represent 150 Carpenters and Millwrights in the Texas Panhandle. We currently work at Pantex and in the plant for contractors who build and remodel buildings. My members and I have personal experience as to safety and knowledge of handling the pits. I am for the pit conversion process to be done at Pantex. I am confident this process can be done safely and securely here at Pantex.

Please consider this comment as a plea for Pantex to be the selected site.

Thank you

James N. Brookes
Carpenters Union 665
 Amarillo Texas 79108

TXD07

TXD07-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding the facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Ninia Bivins
President

Jay O'Brien
Managing Partner



CATTLE COMPANY
Box 15385
Amarillo, Texas 79185

August 16, 1998

U.S. Department of Energy
Office of Fissile Materials Disposition

Sirs:

As the manager/operator of an 80,000 acre ranch twenty miles north west of Pantex and another 160,000 acre ranch 60 miles south east of Pantex and the owner of a 45,000 acre ranch 60 miles east of Pantex, I have a vested interest in maintaining the quality, as well as the perception, of quality of agricultural products produced in the Panhandle. Chernobyl was a catastrophe because of the radiation, but also because it happened in Russia's bread basket.

As a member of the National Cattlemen's Beef Association's Industry Planning Group, I can tell you that beef prices are impacted more by perception of food safety than by fact. Pantex is within a few miles of IBP's large beef processing plant, in the center of an area that produces 1/4 of the nations beef and within a few hundred feet of the Ogallala aquifer, which waters the nations grain supply.

There has to be a better place to put a facility dealing with deadly hazardous materials than on the incredibly small Pantex facility. Please consider the perception of food safety as you make your decision.

Sincerely,

Jay O'Brien

e-mail Jay@ranches.org

(806) 376-4147

FD109

FD109-1

Alternatives

DOE acknowledges the commentor's opposition to siting the proposed surplus plutonium disposition facilities at Pantex. The accidents analyzed for the proposed facilities are presented in detail in Appendix K, and the consequences are summarized by alternative in Chapter 4 of Volume I. It is impossible for DOE to predict how one of these accidents would be perceived by potential consumers of agricultural products from the Pantex. In the event of a severe accident, DOE would promptly take steps to interdict and contain any offsite contamination. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses (including analyses of facility accidents and the relative size of the site), technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

I have worked at the plant for six years. I worked in the construction industry before that. I can honestly say this is the safest place I have ever worked at.

1

WD010

WD010-1

Alternatives

DOE acknowledges the commentor's support. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

STATEMENT REGARDING PIT DISASSEMBLY AND CONVERSION FACILITY LOCATION
AT PANTEX

My name is Carlton Clemens and I have been in the Real Estate business in Amarillo for the past 34 years. In those years of business in the Amarillo community, I have met and worked with a large cross-section of residents, and the vast majority of those people have been strong supporters of Pantex. We long term residents are confident that the Plant is operated in a manner that places safety far above all other considerations, and I am happy to say that my children and my grandchildren are residents of Amarillo and I never have had a concern with Pantex being one of our neighbors.

If I had the slightest concern over the safe operations at Pantex, I would pack my family and leave Amarillo as fast as I could. But that is not the case. I have enjoyed living in Amarillo for the past 34 years, confident that my family and I have chosen a community that is safe, progressive, and supportive of an installation that produces weapons to keep our country strong.

As a veteran and rational citizen of these United States, I believe that PITS should be demilitarized as quickly as possible. The competition between Pantex and Savannah River Plants for the PIT conversion facility seems to be a waste of time and tax payer money since the PITS are already at Pantex and can more safely be converted than be shipped half way across the country to do the same thing. It just does not make sense to go to the extra expense and effort to satisfy the whims of politicians.

TXD44

TXD44-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. DOE agrees that the surplus plutonium pits should be disassembled and converted in a timely manner. SRS employees and employees at all of the candidate sites are considered qualified to support the surplus plutonium disposition program. It is understood that at any of the sites there will have to be a training period since these facilities would require new processes and skills. DOE plans to move ahead with the program as quickly as possible, given the constraints of the U.S. agreements with Russia.

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. Decisions on future missions related to the surplus plutonium disposition program at Pantex will be based on environmental analyses (including analyses of transportation risks), technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Both Pantex and Savannah River have trained technicians who are certified to perform the work that is required and no site can claim an advantage in the number of trained workers. Pantex, however, can claim the highest work ethic of any DOE installation and is represented by a strong, well managed and highly respected labor union — a statement that the Non-Union Savannah River Site cannot claim.

I would like to remind you that the fine employees at Pantex have more experience in handling pits than any other site in the DOE complex. The DOE should not place classified weapons components in the hands of employees at the Savannah River Site who have extremely limited experience in dealing with PITS.

Thank you for your consideration, and I am confident that after you review all the FACTS in this important task, you will find that Pantex is the clear choice for the PIT Disassembly and Conversion Facility!

Thank you sincerely for your time.

Carlton Clemens 8/11/98
Carlton Clemens

August 11, 1998

TXD44

3-767

We have had a safe and long history of handling plutonium. People in Amarillo back up the DOE and this will bring jobs to Amarillo. We need Pantex here and I totally support this.

1

WD014

WD014-1

Alternatives

DOE acknowledges the commentor's support for the surplus plutonium disposition program at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

3805 Overlook Drive
Amarillo, TX 79109
September 11, 1998

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

Re: Draft Surplus Plutonium Disposition EIS

I oppose any form of plutonium processing at the Pantex facility. The Plutonium Pit Disassembly and Conversion facility should be located at Savannah River for the following reasons:

1. The number of sites with plutonium contamination should not be increased. Every site which has been involved in plutonium processing is substantially contaminated. While Pantex has environmental damage, the contaminants do not include plutonium and it should not be introduced.

2. Plutonium processing requires substantial infrastructure which already exists at Savannah River. It is not cost-effective to duplicate facilities at Pantex.

3. The work force at Savannah River is trained and experienced in plutonium processing while the work force at Pantex has been confined to dismantling and storing sealed weapons components. These jobs require different skills. Retraining the Pantex work force would be expensive.

4. It would be cheaper and safer to ship sealed pits from Pantex to Savannah River than to ship disassembled and converted pits.

5. Pantex is located in an agricultural area and is situated over the Ogallala aquifer. The risk to the land and water by plutonium processing of any kind is unacceptable.

The prospect of additional jobs and federal dollars at Pantex does not offset the valid reasons for locating the Plutonium Pit Disassembly and Conversion facility at Savannah River.

In 1996, DOE stated that "plutonium would not be introduced into a site that does not currently have a plutonium infrastructure because of the high cost and complexity of introducing plutonium operation into sites without current capabilities." This was a logical policy in 1996, and it is a logical policy now.

Sincerely yours,

Louise Daniel

Louise Daniel

MD191

MD191-1

Alternatives

DOE acknowledges the commentor's opposition to siting the pit conversion facility at Pantex. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure.

MD191-2

Alternatives

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at SRS. As indicated in the revised Section 1.6, SRS is preferred for the proposed facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. Although Pantex may not currently have the extensive plutonium processing infrastructure already present at SRS, analyses in Chapter 4 of Volume I indicate that impacts of construction and normal operation of the proposed facilities on infrastructure, health, safety, and the environment at Pantex would likely be minor. Decisions on the surplus plutonium disposition program at Pantex and SRS will be based on environmental analyses (including analyses of transportation risks), technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

MD191-3

Other

DOE acknowledges the commentor's support of the SRS workforce. Experienced employees would be trained in the specific activities involved with the surplus plutonium disposition program regardless of where the facilities are located.

MD191-4

Transportation

This SPD EIS analyzes shipping surplus plutonium both in the form of pits (Alternative 3) and plutonium dioxide (Alternative 5) from Pantex to SRS. The transportation risks and costs would be slightly higher for Alternative 3 because the required number of SST/SGT shipments are higher for pits

than plutonium dioxide. The radiological risk for both alternatives is about the same.

MD191-5

Water Resources

DOE acknowledges the commentor's opposition to siting the proposed surplus plutonium disposition facilities at Pantex. The analyses presented in Section 4.26.3.2.2 indicate that there would be no discernible impacts on the quality of water in the Ogallala aquifer from normal operation of these facilities. Other sections show, moreover, that the normal operation of these facilities would likely have minor impacts on human health, agriculture, and livestock: Sections 4.17.1.4 and 4.17.2.4 address the potential radiological and hazardous chemical effects of the maximum-impact alternative on workers and the public at Pantex; Appendix J.3, the potential contamination of agricultural products and livestock, and consumption of these products by persons living within an 80-km (50-mi) radius of Pantex.

Tuesday, August 11, 1998

Department Of Energy
Washington, D.C.

To Whom It May Concern:

My husband and I would like to go on record in support for the pit disassembly and conversion facility at Pantex. We believe that the Pantex Plant in Amarillo has had a very good safety record over the years that it has been in the city.

The city of Amarillo and Pantex have enjoyed a good working relationship for many years, and we would like to see Pantex have a new mission in Amarillo.

Sincerely,

Helen C. Day

Joe R. Day


Joe R. Day
3509 Hilson
Amarillo, TX 79109

TXD16

TXD16-1

Alternatives

DOE acknowledges the commentors' support for siting the pit conversion facility at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.



United States
Department
of Energy

Comment Form

NAME: (Optional) Helen Charlene Day

ADDRESS: 3509 Wilson Amarillo, Tex. 79109

TELEPHONE: (806) 353-3252

E-MAIL: _____

Additional Comments:
I feel Pantex is the best location for the pit disassembly and conversion because the pits are already in storage at the Amarillo Pantex Plant and will never have to leave on a long dangerous road trip to Savannah River.
Pantex workers have highly skilled jobs and will excellent workers ethic's and would contribute greatly to the new missions.
Pantex has the support of the city leaders, Chamber of Commerce, leaders of the state, and a majority of Panhandle citizens.
It is my sincere hope that the location will be chosen where the work can be done safely and correctly. I feel that the Pantex Plant will be that site.

TXD18

TXD18-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. Transportation impacts are summarized in Chapter 4 of Volume I and Appendix L. As indicated in Section 2.18, no traffic fatalities from nonradiological accidents or LCFs from radiological exposures or vehicle emissions are expected under any of the proposed alternatives. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses (including analyses of transportation risks), technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

To whom it may concern,

I would like to affirm my support of the Pit Disassembly and Conversion Facility being located at Pantex Plant. I would like to speak first from the perspective of a Pantex employee. I've worked in the Information Management Division for 16 years and have watched the Plant successfully face a broad range of challenges.

These include changes in legal regulations, changes in mission, and reduced budgets and staffing. In each case, I've watched as the Plant's employees (bargaining, non-bargaining, and management) have rallied to address the critical issues at hand. One of the accomplishments that I am most proud of, is the safety culture at Pantex.

The commitment to safety starts with the General Manager and is formally included as the #1 performance objective of every employee at the Plant. There is a high level of individual ownership in the area of safety and this is clearly evident by the improvements in recordable injuries made over the past 3 years. Safety is integrated into every activity carried out at the Plant.

Another area of excellence at Pantex is environmental stewardship. The staff and program in place at Pantex are *second to none*, as evidenced by the pro-active approach to issues such as aquifer protection. Pantex has consistently been favorably evaluated by 3rd party regulatory agencies -- groups who have nothing to gain from the Plant's continued operation!

From the perspective of a long-term (39 year) resident of Amarillo and the Texas panhandle, I believe the new PDCF mission would be beneficial to the local community -- from an economic, ecological, and social perspective. Obviously, the new mission would provide employment opportunities for local residents - our friends and our families. Also, we know these stable jobs have a ripple effect through the overall economy of the area.

In addition, I would like to remind everyone that the ground water, soil, air, and other natural resources do not solely belong to the area's agriculture industry. Everyone who lives in this area is a benefactor of clean air and water. As a citizen of this area, I am much more concerned about the ground water required and the waste stream created by industries other than Pantex.

As other citizens, I am concerned by the potential for aquifer contamination from the over-use of pesticides and fertilizers, the run-off from stock yards, and the inappropriate use of industrial chemicals. I believe that the work represented by the PDCF creates much less environmental impact to the area than other industries (e.g. hog farms).

The social impact of a business like Pantex is extensive. Employees of this Plant contribute financially to important social programs such as the United Way. In addition, they volunteer an in-numerable amount of their personal time to local schools, churches, and community service groups. Pantex provides employment opportunities for a wide variety of people ranging from High School graduates to Ph.D.'s -- pipe-fitters to scientists. This mixture provides a balanced social climate, with ample room for our children to live and grow.

TXD17

TXD17-1

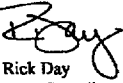
Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. Analyses in Chapter 4 of Volume I indicate that impacts of operating the pit conversion facility on health, safety, and the environment at Pantex would likely be minor. Decisions on the surplus plutonium dispositions program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

In summary, the PDCF mission would allow Pantex to continue providing stability to the local community. This is healthy for everyone who wants to continue living in this area. For the area to remain a viable place to live, we can't just rely on more hog farms, truck stops, and prisons. For the area to remain strong, there must be a patch work of businesses with diverse economic resources and business cycles, that employ a wide range of workers, with diverse educational backgrounds and vocational skills.

1

Thanks for your time



Rick Day
6101 Cornell
Amarillo, TX 79109
(806) 358-2717



United States
Department
of Energy

Comment Form

NAME: (Optional) DON DODSON
ADDRESS: P.O. Box 32552, Amarillo, TX 79139-2552
TELEPHONE: (806) 355-9161
E-MAIL: _____

I would like to express my support
for Pantex and its mission.

It is only logical that the plutonium pits
are currently located in Amarillo/Pantex
plants that should be location for assembly

I had the opportunity to visit St. Petersburg
Russia on vacation this summer and it was
my observation that we need to take every
opportunity to reduce Russia's plutonium
inventory and to do it as soon as possible.

TXD10

TXD10-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

TXD10-2

DOE Policy

DOE acknowledges the commentor's concern regarding the reduction of Russia's plutonium inventory. The United States and Russia recently made progress in the management and disposition of plutonium. In late July 1998, Vice President Gore and Russian Prime Minister Sergei Kiriyenko signed a 5-year agreement to provide the scientific and technical basis for decisions concerning how surplus plutonium will be managed. This agreement enables the two countries to explore mutually acceptable strategies for safeguarding and dispositioning surplus plutonium. During the first week of September 1998, Presidents Clinton and Yeltsin held a Moscow summit and signed a statement of principles with the intention of removing approximately 50 t (55 tons) of plutonium from each country's stockpile.

Understanding the economic dilemma in Russia, the U.S. Congress has appropriated funding for a series of small-scale tests and demonstrations of plutonium disposition technologies jointly conducted by the United States and Russia. For fiscal year 1999 (starting October 1998), Congress further appropriated funding to assist Russia in design and construction of a plutonium conversion facility and a MOX fuel fabrication facility. This funding would not be expended until the presidents of both countries signed a new agreement.

August 10, 1998

U. S. Department of Energy
Office of Fissile Materials Disposition c/o SPDEIS
Box 23786
Washington, DC 20026-3786

REF: Location of Pit Disassembly and Conversion Facility

As an employee at the Pantex Plant in Amarillo, Texas, and a long term resident of the Amarillo, Texas, I want to see the pit conversion work done at Pantex.

This is not just a personal issue. The real consideration should be safety, and of the two possible sites, Pantex is the safer facility. This can easily be confirmed by reviewing existing records for both facilities. At times it has almost seemed like Pantex was overlooked for additional weapons-related work because we are such a clean site.


The safety record is directly attributable to the efforts of plant employees, who have worked very hard through the years to meet or exceed requirements. Even in the years before the creation of the various oversight agencies such as OSHA, the plant functioned safely. The technical skills of the employees who do hands on weapon work is another reason for the excellent record.

The fact that Texas is not as strong politically -- we don't have aggressive PACs or Strom Thurmond fighting for us -- should not be the major deciding point. As a matter of fact, maybe politics should be left out of it altogether.

The Pantex Plant has provided jobs for my family since 1959, and I hope that it will continue to provide employment for me and many others in the future. The Pantex Plant now has thousands of pits stored. Why risk shipping these items to another location? Why increase the cost to do the job?

I sincerely hope that the DOE will look at all issues with an open mind with the major consideration being safety. The second and third considerations should be the technical skill of the employees, and the last consideration should be cost. If these things are considered without PAC or other political influence, the only logical choice is for the pit conversion to be done at the Pantex Plant.

Respectfully submitted,


Sarah Dworzack

MD019


MD019-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex. DOE believes that all the candidate sites are suitable from an operational, community support, and safety standpoint.

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.

Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses (including analyses of transportation risks), technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.



United States
Department
of Energy

Comment Form

NAME: (Optional) Mary Emery

ADDRESS: Box 1448, Bushland, TX 79012

TELEPHONE: (817) 226-3105

E-MAIL: _____

The question I would ask is the following:

Which is more likely to be spread if there is an accident
in transportation: PITS or MOX fuel

If MOX it would seem prudent to have MOX the
shortest distance

If PITS then Pits should be transported the shortest distance

There are more nuclear plants relatively close to
Savannah River than Palo Verde. If MOX (which
is a powder) is more easily released through accident
then it would seem prudent to make the conversion
to MOX at Savannah River

1

TXD05

TXD05-1

Transportation

The transportation requirements for the surplus plutonium disposition program are evaluated in this SPD EIS. The analysis showed that the accident risk would be slightly higher for plutonium dioxide than pits because the dioxide is in a powder form and therefore subject to more dispersal in an accident. However, this single fact cannot be used as the deciding factor in making a decision on the location of facilities. The number of SST/SGT trips required to transport these two forms and the mileage between facilities are also considered in the overall transportation risk analysis of each alternative. Decisions on the surplus plutonium disposition program will be based on environmental analyses (including analyses of transportation risks), technical and cost reports, national policy and nonproliferation considerations, and public input.

GOOD EVENING.....MY NAME IS INEZ ERWIN.....I AM AN EMPLOYEE AT PANTEX PLANT AND I WAS NOT BUSSED IN TO ATTEND THIS MEETING

.....I FEEL THAT THE WORK IN QUESTION CAN AND SHOULD BE PERFORMED AT PANTEX PLANT.....NOT ONLY ARE WE SKILLED IN OUR JOB PERFORMANCE - AND AS WE DEFINITELY ARE NOT AMATEURS - ADDITIONAL TRAINING WOULD NOT BE A MAJOR FACTORIN FACT, WE HAVE BEEN KNOWN TO TRAIN PERSONNEL FROM OTHER SITES - SUCH AS- SAVANNAH RIVER.....IT WOULD BE COST EFFECTIVE FOR THE MISSION TO BE PLACED AT PANTEX PLANT.....AND AS WE ALL KNOW.....COST IS THE NAME OF THE GAME.....

+ Safety

PANTEX PERSONNEL ARE COMMITTED AS WELL AS BEING DEDICATED TO EXCELLENCE IN THE PERFORMANCE OF SUCH SKILLED ENDEAVORS.

THANK YOU LADIES AND GENTLEMEN FOR YOUR ATTENTION.

TXD34

TXD34-1

Alternatives

DOE acknowledges the commentor's support for the surplus plutonium disposition program at Pantex. 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. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.



General Services Commission
1711 San Jacinto - P.O. Box 13047
Austin, Texas 78711-3047
Web Site: www.gsc.state.tx.us
(512) 463-3035

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August 11, 1998

Mr. Bert Stevenson
NEPA Compliance Officer
U.S. Department of Energy
P.O. Box 23786
Washington, D.C. 20026-3786

Dear Mr. Stevenson:

Thank you for the opportunity to comment on the Department of Energy's *Surplus Plutonium Disposition Draft Environmental Impact Statement*. The State of Texas continues to support the Department's decision to pursue a dual track approach for the disposition of surplus plutonium. However, we believe it is in DOE's best interests to proceed in a manner that ensures broad acceptance for ultimate implementation of the dual disposition strategy.

The State of Texas is very proud of the work carried out at the Pantex Plant. Pantex and its thousands of dedicated, highly trained and motivated employees have made this nation a safer place to live, carrying out their primary mission of assembling and disassembling nuclear weapons. This same skilled workforce can apply its proven production culture and commitment to safety to the new mission of plutonium pit disassembly and conversion.

Because current and future personnel of this new mission will require training on new procedures, Pantex has a unique safety advantage over other sites in that its workforce will require training, not re-training. Clearly, it is preferable to train individuals on a new system, rather than re-train personnel who are used to older systems with outdated procedures and requirements.

The highly trained and motivated Pantex workforce has forged a strong relationship with the Amarillo community. Its commitment to maintaining the integrity of the environment, to implementing proper protocols to ensure the safety of workers and the larger community, and to working closely with the local community have earned Pantex the role of a good neighbor. Pantex enjoys considerable community support and enthusiasm for new missions.

TXD39

TXD39-1

Alternatives

DOE acknowledges the commentor's support for the hybrid approach to surplus plutonium disposition and for siting the pit conversion facility at Pantex. Analyses in Chapter 4 of Volume I indicate that impacts of operating the pit conversion facility on health, safety, and the environment at Pantex would likely be minor. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

GENERAL SERVICES COMMISSION
ROGER MULDER
PAGE 2 OF 2

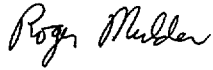
This support extends beyond the local community as well. Pantex has ample resources through the state and through the continuing research at the Amarillo National Resource Center for Plutonium to ensure the protection of human health and safety and the environment.

Pantex has another advantage in that it is currently storing more than 8,000 surplus plutonium pits. In addition to the compelling reasons such as the excellent safety culture and production culture already existing here at Pantex, it makes sense to carry out pit disassembly and plutonium conversion where the pits are already located. Selection of Pantex for pit disassembly and conversion should ensure some expediency in carrying out U.S. and international nonproliferation goals.

In view of Pantex's highly skilled workforce, its sound safety and production cultures, its existing mission of pit storage, and the extensive support which Pantex enjoys from the local community and from the state, I respectfully urge DOE to designate Pantex as the site for pit disassembly and conversion.

Thank you for the opportunity to comment in this important decision making process.

Sincerely,



ROGER MULDER
Director, Pantex Program

TXD39



General Services Commission
1711 San Jacinto - EO, Box 19047
Austin, Texas 78711-3047
Web Site: www.gsc.state.tx.us
(512) 463-3035

September 11, 1998

Mr. Bert Stevenson
NEPA Compliance Officer
U.S. Department of Energy
P.O. Box 23786
Washington, D.C. 20026-3786

Dear Mr. Stevenson:

Enclosed please find comments from Texas research and regulatory bodies on the Department of Energy's *Supplier Plutonium Disposition Draft Environmental Impact Statement*. These state regulatory agencies providing comments herein are tasked under a DOE Agreement in Principle to conduct environmental monitoring and emergency response planning in order to ensure the protection of human health and safety in the area surrounding the Pantex Plant near Amarillo, Texas. The consortium of the Amarillo National Resource Center for Plutonium are also enclosed and represent the cooperative research efforts of a consortium comprised of three major university systems in Texas: The University of Texas System, The Texas A&M University System, and Texas Tech University.

Should you have any questions, please contact me at (512) 463-1877 or email roger.mulder@gsc.state.tx.us. Thank you for the opportunity to comment.

Sincerely,

Roger Mulder
ROGER MULDER
Director, Pantex Program



As State Regulatory Agency

MD188



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August 11, 1998

Mr. Bert Stevenson
NEPA Compliance Officer
U.S. Department of Energy
P.O. Box 23786
Washington, D.C. 20026-3786

Dear Mr. Stevenson:

Thank you for the opportunity to comment on the Department of Energy's *Surplus Plutonium Disposition Draft Environmental Impact Statement*. The State of Texas continues to support the Department's decision to pursue a dual track approach for the disposition of surplus plutonium. However, we believe it is in DOE's best interests to proceed in a manner that ensures broad acceptance for ultimate implementation of the dual disposition strategy.

The State of Texas is very proud of the work carried out at the Pantex Plant. Pantex and its thousands of dedicated, highly trained and motivated employees have made this nation a safer place to live, carrying out their primary mission of assembling and disassembling nuclear weapons. This same skilled workforce can apply its proven production culture and commitment to safety to the new mission of plutonium pit disassembly and conversion.

Because current and future personnel of this new mission will require training on new procedures, Pantex has a unique safety advantage over other sites in that its workforce will require training, not re-training. Clearly, it is preferable to train individuals on a new system, rather than re-train personnel who are used to older systems with outdated procedures and requirements.

The highly trained and motivated Pantex workforce has forged a strong relationship with the Amarillo community. Its commitment to maintaining the integrity of the environment, to implementing proper protocols to ensure the safety of workers and the larger community, and to working closely with the local community have earned Pantex the role of a good neighbor. Pantex enjoys considerable community support and enthusiasm for new missions.

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MD188

MD188-1

Alternatives

DOE acknowledges the commentor's support for siting the pit conversion facility at Pantex and appreciates the community's strong support of Pantex. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

This support extends beyond the local community as well. Pantex has ample resources through the state and through the continuing research at the Amarillo National Resource Center for Plutonium to ensure the protection of human health and safety and the environment.

Pantex has another advantage in that it is currently storing more than 8,000 surplus plutonium pits. In addition to the compelling reasons such as the excellent safety culture and production culture already existing here at Pantex, it makes sense to carry out pit disassembly and plutonium conversion where the pits are already located. Selection of Pantex for pit disassembly and conversion should ensure some expediency in carrying out U.S. and international nonproliferation goals.

In view of Pantex's highly skilled workforce, its sound safety and production cultures, its existing mission of pit storage, and the extensive support which Pantex enjoys from the local community and from the state, I respectfully urge DOE to designate Pantex as the site for pit disassembly and conversion.

Thank you for the opportunity to comment in this important decision making process.

Sincerely,



ROGER MULDER
Director, Pantex Program

MD188

**Surplus Plutonium Disposition
Draft Environmental Impact Statement
Comments**

Amarillo National Resources Center for Plutonium
600 South Tyler, Suite 800
Amarillo, Texas 79101
806-376-5599
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ROGER MULDER

MD188

Ian Scott Hamilton, Ph.D., CHP
Texas A&M University
Department of Nuclear Engineering
College Station, TX 77843-3133

ENVIRONMENTAL CONSEQUENCES: SECTION 4.6

Choice of Baseline Pit Conversion Process

The pit conversion process described as a basis for EIS analyses is a batch HYDOX process. In this process, the entire pit is converted into hydride, then a nitriding reaction is performed, and finally an oxidizing reaction. Each is performed as a separate step, converting a batch of plutonium from one chemical state to another. In contrast, the process described in the pit disassembly demonstration environmental assessment (DOE 1998) has the hydriding and nitriding steps occurring concurrently; a batch-sized quantity of powdered, pyrophoric plutonium hydride is never created. This has implications in the safety analysis since plutonium hydride is more reactive in air than plutonium nitride. Since batch quantities of pyrophoric plutonium hydride powder are not mentioned in the EIS, some question remains as to the process actually assumed for the EIS analyses.

Few Point Estimates of Accident Frequencies

The SDPEIS presented point estimates of accident frequencies. Consequences to the public are multiplied by the associated frequencies to obtain estimates of societal risk. The draft SPDEIS (note: SP not SD) gives only broad ranges for most accident frequencies. Best point estimates of accident frequencies should be made, and societal risks calculated. This would provide a basis on which to compare risks from proposed facilities to those from existing facilities, as well as providing a basis to compare the risks from different siting decisions. The draft SPDEIS states that frequencies are reported only as broad frequency bins, since estimates of highly unlikely events can be on the order of several orders of magnitude. It is assumed that the draft SPDEIS is stating that the uncertainty associated with some frequency estimates is on the order of several orders of magnitude. The EIS continues on and states that consequence metrics have been preserved as the primary accident analysis results, with accident frequencies identified qualitatively, to provide a perspective on risk without implying an unjustified level of precision.

Risk is the product of frequency and consequence. Presenting only a consequence with a very broad frequency range does not provide a perspective on risk. Additionally, since the purpose of the EIS is to aid in selecting sites based on relative characteristics, absolute precision is less important than consistent analysis for different sites and disposition options. Blurring the frequency to a broad range, instead of presenting best point estimates consistent with other documentation, prevents risks from each site from being compared. An incorrect conclusion concerning the desirability of one site over another may occur due to the practice adopted in the EIS. Other environmental reports and safety analyses present point estimates for frequencies; the EIS should also.

MD188

MD188-2

Pit Disassembly and Conversion

The accident scenarios evaluated in this SPD EIS are based on the HYDOX process described in Section 2.4.1.2. A detailed discussion of the accident scenarios, methodology, and assumptions for the pit conversion facility is presented in Appendix K.1.5.2.1. These scenarios and assumptions are based on information provided in the *Pit Disassembly and Conversion Facility Environmental Impact Statement Data Reports* (June 1998) for each of the candidate sites. These reports are referenced in Chapter 2 (Volume I) of this EIS.

MD188-3

Facility Accidents

It is true that risk is the product of frequency and consequence. However, the decision to report frequencies in terms of a range does not prevent risks from each site from being compared. Instead, it recognizes the uncertainty (or range of uncertainty) in the frequency estimates. This is consistent with the guidance in *Recommendations for the Preparation of Environmental Assessments and Environmental Impact Statements* (DOE Office of NEPA Oversight, May 1993). Results are presented in such a way that risk differences shown in the results among alternatives reflect real, physical differences as opposed to definitional or methodological differences. Frequency differences arise primarily (1) when frequency estimates are different enough to warrant different risk categories; and (2) in the frequency of aircraft crashes. Pantex is the only site being considered where the aircraft crash frequency is greater than 1.0×10^{-6} , thereby warranting a quantitative analysis. With respect to consequences, a great deal of effort has been made by DOE to develop a consistent method of source term estimation, as documented in *Airborne Release Fractions/Rates and Respirable Fractions for Nonreactor Nuclear Facilities* (DOE-HDBK-3010-94, October 1994). The differences among sites for meteorology and population characteristics also have a clear and supportable physical basis.

Storage Quantity of Plutonium Oxide Powder (probably the most important issue for the Panhandle, now)

The product of the HYDOX process is plutonium oxide powder. Storage issues were not addressed in the SDPEIS (I believe that the first 'S' stands for storage?). Due to the much greater hazard posed by plutonium oxide powder, as compared to the solid metal pit, Texas Report 1 contained the assumption that ten storage magazines would each contain 100 kg of plutonium oxide powder, for a total of 1,000 kg stored on site (but in locations external to the pit conversion facility). The draft SPDEIS reveals DOE plans to store 4,000 kg of plutonium oxide powder in the pit disassembly building vault, and 10,000 kg in the MOX facility storage vault. It is not clear if these inventories correspond to maximum design capacities of the vaults. Two initiators in the EIS (MCE and aircraft crash) have potentially large respirable releases associated with the storage vaults. DOE stated at the public meeting that they would definitely use the conversion process to a PuO₂ endpoint rather than just a Pu metal endpoint with a declassified shape. Therefore, this is the place that needs to be given the greatest consideration; the amount of powder stored directly affects the amount of material at risk for societal risk and agricultural impact characterization. That is, inhalation of plutonium is the most hazardous route of intake into the body. The committed effective dose equivalent resulting from inhalation of a given amount of plutonium is about 200 times that resulting from ingestion [5.0 x-05 Sv/Bq (absorption type M, Pa-239, Table 5.29.3(b) of ICRP 71, adult) divided by 2.5 X-07 Sv/Bq (adult, Pa-239, Table C-10.2 of ICRP 67)]. Processes and storage options that increase the amount of respirable material available for dispersal must be adopted cautiously, since the material is in a physical form that is easily inhaled if an accident should occur. Aircraft impact ARF and RF values.

The Draft SPDEIS Presents Less Conservative ARF and RF Values.

On the basis of limited data concerning particle sizes, an arithmetic average of the particle sizes resulting from ten trials is taken (a reference document, Mishima et. al., is so new that we don't have it and it is used for the basis of this calculation). Variation in the fraction of powder less than 10 microns AED varies by four orders of magnitude. Since process details are still being developed, it would seem prudent to select a bounding value. Instead, an average is taken, resulting in a ten-fold reduction in apparent consequences and risks. This is not conservative, especially considering the developmental nature of the process. It is also not consistent with the Pantex Zone 4 FSAR and other safety documents that typically take bounding values, rather than typical values. Exclusion of seismic events beyond DBEs. As in the SDPEIS, there appears to be confusion concerning credible accidents and design basis accidents in the draft SPDEIS. The premise that credible earthquakes are only those with frequencies greater than 1 in 10,000 is inconsistent with other DOE safety analyses and standards. For example, DOE-SITD-1023 differentiates between the maximum credible earthquake (MCE) and design basis earthquake for a site. The MCE is more severe than a design basis earthquake, but still credible. Effects from credible earthquakes greater than the design basis earthquake are considered in the Rocky Flats Building 707 environmental assessment and the Pantex Zone 4 FSAR.

MD188-4

Facility Accidents

The inhalation of respirable plutonium from a plutonium dioxide powder release is of primary significance to doses resulting from accidents. The SPD EIS accident analyses recognized this and developed source terms conservatively by focusing on powder process areas appropriate to the characterization of bounding scenarios. The assumed quantities of plutonium dioxide powder in storage at the time of accident initiation are anticipated administrative maximum quantities, and are therefore conservative.

MD188-5

Facility Accidents

As recommended by the commentor, and consistent with DOE-HDBK-3010-94, Appendix K.1.5.1 was revised to reflect the use of a respirable fraction of 0.2 for aircraft debris impact into plutonium dioxide powder. This SPD EIS does not exclude seismic events beyond the design basis earthquake. In fact, a beyond-design-basis earthquake was specifically postulated to account for the fact that ground motions in the extremely unlikely to beyond extremely unlikely range (i.e., in the range of 1.0×10^{-6} to 1.0×10^{-7} per year) could be significantly larger than ground motions from a design basis earthquake, which has a defined annual frequency of 5.0×10^{-4} (1.0×10^{-3} at LLNL, since it is near a tectonic plate boundary). Appendix K.1.5.1 states that the magnitude of potential earthquakes with return periods greater than 10,000 years is highly uncertain. For purposes of this EIS, it was assumed that at all the candidate sites, earthquakes with return periods in the 100,000-to 10-million-year range might result in sufficient ground motion to cause major damage to even a modern, well-engineered, and well-constructed surplus plutonium disposition facility.

Worker Doses Calculated at a Distance of 1,000M

Most other safety analyses calculate non involved worker dose at 100 m. Transportation (Appendix L) uses distances of 100 m (neutral meteorology) and 90 m (stable meteorology) for the maximally exposed individual for accidents. In the EIS, it is unclear why doses can be calculated at distances of a football field for transportation accidents, yet not for onsite accidents. Obviously, at the Pantex Plant, there are many non involved workers within ten football fields of the facility. Doses to workers would, in general, be much higher at 100 m than at 1,000 m.

HEPA Filter Integrity

HEPA filter efficiencies of 0.999 and 0.99 were assumed during accidents. The resulting leak path factor (LPF) is 1.0×10^{-5} , twenty times the value used in the SDPEIS (2×10^{-6}). The EIS values are closer to efficiencies of 0.99 and 0.995 recommended in recent literature.

Much lower efficiencies may result when filters are challenged by pressure pulses (even those less than the amount needed to damage the filter may result in much lower efficiency), wetting, or aging. Further analysis requires more details of the proposed design. The chances that the system will perform during an accident are enhanced if there is redundancy. The consequences of many accidents become very severe if the HEPA filters are damaged or degraded significantly in filtration efficiency. Careful design and construction is essential to ensure the integrity of the filters.

Different Accident Suite

Some of the accident scenarios presented in the SDPEIS are no longer considered in the draft SPDEIS. These include the dock fire and oxycetylene explosion scenarios. These accidents were the most risk-significant in the SDPEIS and in our assessment. It would be nice to see a qualification as to DOE's commitment to reduce overall risk by "proceduralizing out" the latter hazard, rather than leaving one to wonder if it was an oversight or omission. The former hazard is duly explained by the newer design information, as long as they aren't going to leave material sitting out prior to shipment - perhaps another procedural qualifier would be good.

REFERENCES

(DOE 1996) U.S. Department of Energy. Storage and disposition of weapons-usable fissile materials final programmatic environmental impact statement. Washington, DC: U.S. Department of Energy, DOE/EIS0229, 1996.

(DOE 1998) Pit disassembly and conversion demonstration environmental assessment and research and development activities, Preapproval review, DOE/EA-1207-D, May 1998.

Phone: (409) 845-8101
Fax: (409) 845-6443
e-mail: ism@trinity.tamu.edu

MD188-6

Facility Accidents

In general, it is true that doses would be higher at 100 m (330 ft) than at 1,000 m (3,281 ft). This trend is acknowledged in Appendix K.1.4.1, which states that a worker closer than 1,000 m (3,281 ft) to the accident would generally receive a higher dose; a worker farther away, a lower dose. However, this trend is not absolute; for an elevated release (which many of the releases evaluated in this SPD EIS are), doses tend to decrease closer to the release point because the plume is above the receptor. Also, for ground-level releases from an existing building, the chaotic nature of building wake effects makes estimates of doses highly uncertain for distances less than approximately 100 to 200 m (330 to 656 ft). DOE acknowledges that doses to some workers may be higher than those estimated for the maximally exposed worker at 1,000 m (3,281 ft). However, there is no fixed distance at which doses to workers are maximized. Thus, a reference distance must be picked as a point of comparison among alternatives. This EIS selected 1,000 m (3,281 ft) (or the site boundary, if less than 1,000 m [3,281 ft] away) as reasonable, based on its use in the *Storage and Disposition PEIS*. A distance of 100 m (330 ft) is used in the transportation accident analysis to nominally define a public dose for purposes of comparison. This is appropriate for transportation accidents because it is assumed that the public is in the immediate vicinity of the accident (public roads). It is also technically feasible because the transportation accident is assumed to be a ground-level, nonbouyant release, and there are no significant wake effects at 100 m (330 ft) due to the bulk of the trailer.

MD188-7

Facility Accidents

DOE acknowledges the importance of HEPA filter effectiveness in mitigating accident consequences. For the purposes of the accident analysis in this SPD EIS, only two of the three stages of HEPA filters are assumed to work during all the design basis accidents. For such accidents, the two stages are assumed to have a combined efficiency of 99.999 percent. One major consideration in the development of the beyond-design-basis accidents analyzed in this SPD EIS was the need to characterize consequences in cases where the building HEPA filtration fails. The beyond-design-basis seismic

event assumes that building HEPA filtration is altogether unavailable; the beyond-design-basis fire also assumes that HEPA filtration is unavailable due to clogging of the HEPA filters from smoke or wetting. The statement is incorrect that the HEPA filter leakpath factor in this EIS is 20 times the corresponding factor in the *Storage and Disposition PEIS*; it is 5 times greater. As discussed in Appendix K.1.5.1, Accident Scenario Consistency, the value of 1.0×10^{-5} was selected as the more conservative of the values supplied in the data reports.

MD188-8

Facility Accidents

Appendix K was revised to show that the suite of generic accidents in the *Storage and Disposition PEIS* was considered in the analysis of accidents for this SPD EIS. However, the more detailed design information in the surplus plutonium disposition data reports was the primary basis for the identification of accidents because that information most accurately represents the expected facility configuration. Accidents such as the fire on the loading dock and the oxyacetylene explosion in a process cell were deemed to be unsupported by this information, so were not included in this EIS.

Randy Charbonneau, Ph.D.
The University of Texas at Austin
Center for Research in Water Resources
Austin, TX 78712

ENVIRONMENTAL CONSEQUENCES: SECTION 4.6

The results presented in this section are reasonable and show that the facility would not pose unreasonable risk. I did not compare specific values for Pantex vs. Savannah River, but I also did not see direct biases that were created, except for transportation. As might be expected, insufficient data is provided to evaluate the detailed analyses for human health risk, air quality, etc.

The transportation analyses do appear to have some built-in bias. For MOX transportation the analysis considers (1) depleted UF₆ from one of DOE's sites at a gaseous diffusion plant to a commercial conversion facility, (2) UO₂ from the conversion facility to the lead assembly facility, (3) MOX fuel bundles to a domestic, commercial nuclear reactor, and (4) the other expected transport of pits, PuO₂, etc. Possible gaseous diffusion plants include those in Kentucky, Ohio, or Tennessee. Possible sites for conversion to UO₂ include facilities in Missouri, North Carolina, South Carolina, or Washington. This site of the commercial reactor is unspecified. For the calculations the EIS assumes that Portsmouth (Ohio) is the site for depleted uranium and that the GE Nuclear Energy Production Facility in Wilmington, North Carolina represents the conversion facility. This is assumed for all scenarios. Further, it is assumed that a transportation distance of 2,500 miles is required from the MOX facility to the commercial reactor. If you look at a map, it is apparent that these selections present a bias against Pantex. How would the risks change if the depleted uranium went from Ohio to Missouri to the MOX facility? Furthermore, draw a circle that has a radius of 2,500 miles around each of the potential facilities. What fraction of the US is covered Pantex vs any of the other potential facilities. One might assume that the distance of 2,500 miles is too small for Savannah River and too large for Pantex. While transportation risks do not represent a significant dose or risk, I would have expected them to be a greater differential risk determinant than was presented in the EIS.

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MD188-9

General SPD EIS and NEPA Process

DOE acknowledges the commentor's remarks regarding risk. As discussed in Section 4.6.2.6, transportation activities that would result from the implementation of Alternative 4A would pose no significant risk to human health or the environment at Pantex. Information required for detailed evaluation of environmental impacts is provided in the references for Chapter 4 of Volume I and in Appendixes F through M.

MD188-10

Transportation

The GE Nuclear facility in Wilmington, North Carolina, was used for the purpose of determining the potential impacts of the conversion of uranium hexafluoride to uranium dioxide as part of the surplus plutonium disposition program. The radiological risks of shipping uranium dioxide would likely be minor, and would contribute little to the total risk of any alternative. The nonradiological risks (traffic-accident- and vehicle-related air pollution) are generally proportional to the distance driven. Appendix L was revised to include the impacts associated with shipping MOX fuel to the Catawba, McGuire, and North Anna reactors. This SPD EIS no longer includes a generic distance from the MOX facility to a reactor. As shown in Table L-3, the cumulative transportation distance for all MOX alternatives would be over 3.6 million km (2.2 million mi). Changing the location of the uranium dioxide conversion facility would affect the impacts by less than 10 percent. Section 4.28 was revised to discuss the potential environmental impacts of operating the reactors that would use the MOX fuel.

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**COMMENTS PROVIDED AT DOE PUBLIC HEARING ABOUT THE SURPLUS
PLUTONIUM**

Good Evening: My name is James C. Rock. I am President of the American Industrial Hygiene Association, the world's largest association of occupational and environmental health professionals. Our members play an important role on the front line of worker health and safety. AIHA is the most diverse professional association dedicated solely to the prevention of workplace fatalities, injuries and illnesses. One of our goals is to bring "good science" and the benefits of our workplace experience to the public policy process. I fully support the public disclosure resulting from the DOE Environmental Impact Assessment Policies. I define industrial hygiene as the profession dedicated to insuring safe and healthful use of necessary hazardous materials and necessary hazardous processes. By this definition, if something is not necessary, we should choose a less hazardous replacement. If it is necessary, we should use it in a safe and healthful manner. In the instant case, we have Plutonium in storage at Pantex, so it is necessary to work with it. I want to make three points here tonight.

First, a blue ribbon panel of experts selected by the National Academy of Sciences has determined that Plutonium as it is presently stored at Pantex should be remanufactured to a less hazardous form. That process is called conversion in the EIS. The conversion will produce a ceramic, Plutonium Dioxide, that is much safer than the surplus weapons-grade Plutonium alloys presently in storage. To illustrate the benefits briefly, I note that the Plutonium and its alloys are soluble in aqueous acids and will burn in air under proper conditions, while the ceramic PuO2 is neither soluble nor flammable under those conditions.

Second, my profession has established priorities for working with hazardous materials. All hazards to personnel and their communities should be known and controlled. The priorities for controls, with the best options first, are: process design, administrative controls and personal protective equipment. Personal protection such as gloves, respirators and coveralls are used only when other options are unavailable. The Draft Surplus Plutonium Disposition EIS shows clearly that DOE is following this paradigm. Many citizens are watching DOE, and I believe all in the room today are participating with DOE to insure that we all stay on this track.

Third, my profession believes in an inalienable right of workers and citizens to know. This draft EIS provides clear evidence of the DOE commitment to full disclosure. Great effort has been expended to explain the hazards to workers and to the community and to describe the processes and equipment that are being designed to control these hazards. Some features of the design remain incomplete. The draft EIS reflects this reality.

Let me turn now and offer two comments about the draft EIS. Some sections of the draft EIS differ from other sections and from previously published documents. I believe that reflects its draft nature. We are here today to help DOE peer review the draft EIS and make it as accurate as possible before it is finalized. First, in that spirit, I request that DOE review my suggestions about how Bayes' Rule underlies accident models used to develop emergency response plans. (J.C. Rock and J. Kiffe: "Bayes' Rule Underlies the DOE Standard for Aircraft Accident

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MD188-11

Immobilization

DOE is interested in converting plutonium pits and plutonium metal to an oxide because an oxide is more stable and is further removed from usability in a nuclear weapon.

MD188-12

General SPD EIS and NEPA Process

DOE acknowledges the commentor's position regarding the safe handling of hazardous materials.

MD188-13

General SPD EIS and NEPA Process

DOE acknowledges the commentor's appreciation of this SPD EIS.

MD188-14

Facility Accidents

To understand the commentor's concerns, an additional paper (*Improving Aircraft Accident Forecasting for an Integrated Plutonium Storage Facility* [ANRCP-1998-6, June 1998]) by Dr. Rock, Dr. McNerney, Ms. Kiffe, and Ms. Turen was reviewed. DOE disagrees with the conclusions of the paper that a two-thirds reduction of crash frequency due to in-flight operations is appropriate because the details of the calculation in this EIS are not accurately represented in the paper. In any event, a frequency of 1.0×10^{-7} per year is still in the same qualitative category as that of an aircraft crash at Pantex in this SPD EIS, and the frequency specification of "beyond extremely unlikely" would remain unchanged.

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.

MD188-15

Other

DOE acknowledges the commentor's remarks concerning DOE's public image, technical innovations, and various applications for beryllium.

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Analysis," ANRCP 1998 Researchers' Conference Proceedings.) Proper application of this principle will show, I believe, that the aircraft accident risk at Penick is no higher than at Savannah River. My colleague, Dr. Mike McNamery of the University of Texas Transportation Research Center, is nearly finished analyzing a one year record of all aircraft operations tracked by the RAMS radar data acquisition system in the Amarillo Airspace. That data should be the source data for the final EIS. Second, in life cycle cost exercises such as those identified in the draft EIS, it is important to consider all costs. It is an unavoidable fact of life that cleanup of existing contamination is paid for from operational budgets in government agencies as well as in industry. Therefore, please include the present value of deferred cleanup costs at Savannah River when you revise the draft EIS. The economic analysis should show lower costs for conversion at Paducah because it will not have to add the overhead costs of deferred cleanup that must be added at Savannah River.

I want to tell you all how proud I am tonight to be an American. I am proud to be part of this public meeting that allows each of us to present facts and to ask questions that will help insure the best possible decision as we, together, move forward in the larger goal of nuclear disarmament of the human race. Let me reflect briefly to some comments we have heard today.

Many of these comments have portrayed DOE in very bad light. Some citizens seem to believe that DOE has no concern for safety, health or the environment. Though it has many blemishes on its records and has by its past actions earned some title to such criticism, there is a bright side to the story, a side that hasn't been told here today. From the beginning of the nuclear weapons program in agencies that produce the DOE, concern for safety was very high. Laboratory Safety hoods and glove boxes were both invented to protect workers from the hazards of toxic and radioactive materials essential to our nuclear weapons program. These are now essential components of modern chemical, pharmaceutical and semiconductor industries. High efficiency particulate filters, the HEPA filters, were invented in our national laboratories. Without these filters we would not be able to manufacture modern semiconductor devices and many other high technology products. Modern industrial respirators are based on research conducted since the late 1960s at Los Alamos National Laboratories. Their work was so singular, that our National Institute of Occupational Safety and Health contracted with LANL for their fundamental respiratory protection research needs. We have also heard today about the health hazards associated with Beryllium with some allegations sounding as if its only use is in nuclear weapons. The truth is that our knowledge of Berylliosis comes from three sources. It is used in the nuclear industries where its low density and high neutron cross section are essential, is used in electronic industries where its high electrical and thermal conductivity are essential, and it is used in the aerospace industries where its high strength to weight ratio is essential. For those who want more information, may I suggest an excellent book: Beryllium, Biomedical and Environmental Aspects. Rossman, M.D., O.P. Froust, M.B. Powers, eds. Williams & Wilkins, MD 1991.

In conclusion, it is a truism in academia that true synthesis comes only when thesis collides with antithesis. Today, I am hearing dialogue between concerned citizens and representatives of our government. I leave this microphone confident that better solutions for the nation will come from this meeting. Truly, together we can progress faster and more safely than we could by working alone or by working in destructive opposition. Thank you, Mr. Chairman, for allowing me to speak today.

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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^{1,2} 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. DOE 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.

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. 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 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.

¹ Sandia National Laboratories, SAND97-2203 - Proliferation Vulnerability Red Team Report, October 1996.

² 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.

MD188-16

DOE Policy

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 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.

MD188-17

Feedstock

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.

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

<p>Fast Flux Test Facility (FFTF).</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>Recommendation:</p> <p>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> <p>Fast Flux Test Facility (FFTF).</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>Recommendation:</p> <p>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 that might be eliminated by such a course of action.</p> <p>Hot cell examinations of irradiated lead assembly fuel.</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 acknowledgement 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>Recommendation:</p> <p>DOE should revise the EIS to include these impacts, or note that such impacts are already included in other environmental evaluations.</p>	<p>18</p> <p>19</p> <p>20</p>
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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. Therefore, fabricating all 50 t (55 tons) of surplus plutonium into MOX fuel is not considered a reasonable alternative at this time.

While it is possible to use impure plutonium in MOX fuel, the incremental burden to do so is unnecessary and complicates the MOX approach. A 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).

MD188-18 **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. In December 1998, the Secretary of Energy decided that FFTF would not play a role in producing tritium.

MD188-19 **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. DOE agrees with the commentor that the LWR irradiation of the MOX fuel could be eliminated should there be a proposal to restart FFTF using surplus plutonium as a fuel source; however, the timeframe in which it could be accomplished is longer than that currently being proposed by the consortium using commercial reactors.

MD188-20 **Lead Assemblies**

The two DOE sites, ANL-W and ORNL, proposed for postirradiation examination conduct these types of activities on an ongoing basis. Impacts of activities associated with the postirradiation examination of lead assemblies are discussed 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*

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COMMENTS ABOUT THE SURPLUS PLUTONIUM

In addition to the oral comments submitted in the public meeting on August 10, 1998, I have the following written comments on the Surplus Plutonium Disposition Draft Environmental Impact Statement.

- Reading the EIS, I noticed that in several areas it declares that all the sites to be considered except Pantex meet certain levels of potential aircraft crash probability. The oral response in the public meeting indicated that Pantex statement was a result of the November 1996 EIS for Continued Operation of the Pantex Plant. My point is that the previous EIS was conducted before the DOE standard for evaluating aircraft crash probability was finalized, and my research indicates that the analysis thoroughly overestimated the types and amount of traffic landing at Amarillo and from errors in the development of the standard related to military aircraft crash rates thoroughly overestimated the likely hood of an aircraft crash into the Pantex site. The point being that the previous analysis that was done is in error and should not be used to exclude Pantex in any way from the now mission and therefore the statement should be amended or removed from the document.
- In support of this assertion that the previous analysis overestimated the aircraft crash probability, I offer the following data:
 - In the previous EIS, the most significant crash probabilities were related to takeoff and landings of military aircraft. The analysis used radar data (RAMS) collected at Amarillo Airport as analyzed by Dr. Lin of Sandia Laboratories.
 - We have reviewed all the RAMS data and rewritten the FORTRAN program that analyzes the tracks to determine high altitude versus landing aircraft and found an order of magnitude reductions in the large military aircraft landing at Amarillo. We reduced the number of unknown category of flight tracks by a factor of three or more. We now have the most accurate database of aircraft operations at Amarillo Airport.
 - Using this database of aircraft traffic and using the DOE standard and support documentation crash rates (Which are also in error on the conservative side) for actual military aircraft types flown into the Amarillo airspace, we determined that the small military rates were 9 and 8 times overstated for zones 4 and 12 respectively. The large military aircraft crash probability were overstated in zones 4 and 12 by 2 and 4 times respectively.
 - Using these new aircraft specific traffic data, the probability of an aircraft crash by the general aviation single engine piston category of aircraft is three and one half times more likely to crash into Pantex than the small military category and 14 times more likely than the large military
 - The DOE standard, which was finalized after the previous EIS, has not been validated by outside review and is overly conservative in all categories. My research has determined that there are significant errors in the adoption of military crash rates. Error where made in the interpretation of Air Force accident descriptions as to classifying landing accidents, interpreting the location data of accidents, and in calculating the number of landings and landing approaches for aircraft types.

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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 potential geologic repository.

MD188-21

Facility Accidents

The oral response provided in the public hearing did not fully answer the question. The *Final Environmental Impact Statement for the Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Components* (DOE/EIS-0225, November 1996) was used to determine the operations of each aircraft type. The other remaining factors were from the DOE standard, *Accident Analysis for Aircraft Crash Into Hazardous Facilities* (DOE-STD-3014-96, October 1996), and calculations from equations in that standard. The aircraft crash evaluation used operations data from the Pantex EIS because it was the best available data at the time of the analysis for this SPD EIS.

In response to the claims about having the "most accurate database of aircraft operations at Amarillo Airport," until those data are verified by DOE and made available in a published document, the Pantex EIS operations data are considered the best known published operations data for Amarillo Airport. This SPD EIS disregarded any contribution from general aviation aircraft because the proposed surplus plutonium disposition facilities would be designed to withstand a general aviation aircraft impact. Figure 4 in the DOE-STD-3014-96 data document describes at least 68 small military off-runway accidents around the U.S. These crashes are included in the basis for the crash location density function. The arguments for a reduction of the frequency of 9 or more for in-flight crashes are not provided. The analyses are based on DOE-STD-3014-96 and are considered to be appropriate and adequate for the comparison of the alternatives being considered in this EIS.

- After reviewing the supporting data from all US Air Force crashes from 1979 to 1993, my analysis shows that only one landing crash occurred outside of 4 miles from the runway. In that accident, an F-111 aircraft crashed at nine miles as a result of an unusual situation where one engine was shut down during an emergency approach and the afterburner failed to light on the good engine resulting in the crash. Since all F-111 aircraft have now all been retired from Air Force service it ceases to be a problem and should not constitute a data point in the calculation of crash probability distribution functions for military aircraft.

- There is no data that supports that military aircraft landing accidents have any probability of crash into the Pantex site which is over 10 miles from the Amarillo Runway, let alone be the single highest risk factor.

- The inflight calculated crash rates in the DOE standard as applied to Pantex are overly conservative and I would argue that they should be reduced by a factor of nine or more as applied to the location of Pantex.

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At the request of the Amarillo National Resource Center for Plutonium, a consortium of the Texas A & M University System, the University of Texas System, and Texas Tech University, I have reviewed the 4-part document A Surplus Plutonium Disposition Draft Environmental Impact Statement: Summary, Volume I-Part A, Volume I-Part B, and Volume II@, U. S. Department of Energy, Washington, D. C., July, 1998. 1,500 p. While my review of the Surplus Plutonium Disposition (SPD) Environmental Impact Statement (EIS) was focused on those parts relating specifically to the Pantex Plant and to the environmental quality assessment and impact considerations, a general review was given also to other locations under consideration.

The analysis of the 23 alternatives articulated and presented for review was thorough and balanced with respect to the various sites under consideration. I understand that some of these alternatives are no longer under consideration subsequent to a DOE recent decision to locate the fuel rod assembly fabrication process using plutonium oxide at Savannah River Site (SRS) which is the point of proposed final utilization in an existing nuclear power plant. This decision constrains the selection of alternatives involving Pantex to only those involving (a) current mission of long-term plutonium pit storage with upgrades, (b) pit disassembly, and (c) pit conversion of Pu into plutonium dioxide, a component along with uranium dioxide of eventual Mixed Oxide (MOX) fuel rods fabricated at SRS. In essence the remaining alternatives involving Pantex are as follows (n-6): Alternatives 1, 4A, 4B, 5A, 5B, 11B, 12C, and 12D.

I do not view Alternative 1 (No Action) as a viable option, in that the estimated half-life of plutonium in its present form is some 24,000 years. This is a long time for governments, militaries and taxpayers to guard and protect from terrorism, accident, environmental and natural resource damage, and human tragedy some 50 metric tons of active fissile material that has commercial value as well as obvious destructive potential. This potential legacy should not be left for future generations of Texans and other Americans. The 1:1 leveraging opportunities with the former Soviets with respect to their disassembled and stored fissile materials would be lost as well. The other 22 alternatives would put all this behind us by the year 2015, or with typical public works delays by the year 2020-2025 at least. The Panhandle, Texas, America and the world then will be a safer place.

So the question really becomes two-fold:

- is the presently-proposed suite of technologies adequate to perform the plutonium handling and conversion safely and effectively?; and
- is it environmentally secure?

I will defer the former question to the involved experts in nuclear engineering, nuclear physics, chemical engineering, occupational health and safety, and other relevant fields.

Regarding the second question, my involvement over the last 18 months with ANRCP technical staff and a team of experts evaluating and providing risk assessment for the Pu/MOX fuel conversion process, together with my reading of the SPD EIS document itself suggests that, with the data presented so far, the remaining alternatives involving Pantex can be carried out in an environmental secure manner. The probabilities, exposure, and health

MD188-22

General SPD EIS and NEPA Process

DOE acknowledges the commentor's positions on environmental impacts at Pantex, as well as the interest of the organizations mentioned. The environmental analysis reflected in this SPD EIS involved the consideration of relevant and available information.

Technologies proposed for the disposition of surplus plutonium are described in Sections 2.3 and 2.4; environmental impacts of the implementation of those alternatives, in Chapter 4 of Volume I. As more information becomes available it will be posted to DOE's Web site at <http://www.doe-md.com>.

effect numbers are very, very small. The land area that would be affected by worst-case scenarios involving release of Pu to the environment are very small, contained within site boundaries, and off-site impacts would be practically negligible.

Nevertheless, there is necessary and continuing involvement by agricultural scientists and engineers with the agencies affiliated with the Cooperative Research, Education, and Extension Triangle for the Panhandle (Texas Agricultural Experiment Station, Texas Agricultural Extension Service, West Texas A & M University, USDA-Agricultural Research Service, and Texas Veterinary Medical Diagnostic Laboratory), joined by our colleagues at TAMU-College Station and at the TAES Blacklands Research Center at Temple, in providing new data, information, questions, answers and dialogue from the perspective of agricultural production and processing, including soil/water/plant/animal/wildlife relationships. We are interested as well in impacts on water, soil and air resources from the perspective of rural residents and communities. Our concerns with maintaining the viability of crop, feedlot, range and pasture production systems as part of the human food chain, and of those who operate them, is paramount. The recent, current and future scientific projects with ANRCP sponsorship and involvement reflect these concerns and provide answers that should be taken into account with regard to the present SPD EIS and future plant design and operations. We are available for continuing dialogue and partnerships involving scientific discovery, interpretation, exchange, and education in these areas.

In terms of the EIS document itself, my remarks will be restricted to only a few areas at this time.

*Summary, Section 5.5--Topics analyzed in the SPD EIS are appropriate: air quality, noise, waste management, socioeconomics, human health risk, facility accidents, transportation, environmental justice, geology and soils, water resources, ecological resources, cultural and paleontological resources, land use and visual resources, and infrastructure. However, agricultural production systems are not addressed for any of the potential sites, all of which sit in or adjacent to extensive crop and livestock production appropriate to the regions.

*Chapter 2. Alternatives for Disposition of Surplus Weapons-Usable Plutonium--

- Page 2-3--As noted above, several of these alternatives can be eliminated with recent decisions regarding the SRS mission, namely Alternatives 2, 4A, 4B, 6A, 6B, 6C, 6D, 7A, 7B, 8, 9A, 9B, and 10.

- Pages 2-4 to 2-7--From the maps, every site except Pantex has at least one river running through or adjacent to it.

*Chapter 3. Affected Environment--

- Section 3.1, Approach to Defining the Affected Environment--the Region of Interest (ROI) did not directly include agricultural resources or production practices for any of the candidate sites. If environmental damage were to occur despite safeguards, the public would be very interested in food supply and food chain safety issues, and farmers/livestock producers would be directly affected in terms of restrictions on future production practices or marketing opportunities. These are an important considerations.

MD188-23

Socioeconomics

Incident-free (normal) releases of radioactivity from the proposed surplus plutonium disposition facilities to the food production chain are explained for each candidate site in Appendix J. Current and future operations at any of the candidate sites are not expected to impact the soil used for agriculture and farming in any regions adjacent to these candidate sites. The potential impacts of the proposed facilities on prime farmlands are also evaluated in the Geology and Soils portions of Section 4.26. All activities would be limited to each of the candidate sites, and any impacts on the surrounding areas would be within Federal, State, and local regulatory limits.

Section 4.26 and Appendix K were revised to discuss potential impacts of radioactive emissions on agriculture and water resources.

MD188-24

Candidate Sites

DOE's preference for siting the MOX facility at SRS is not a decision. The alternatives cited by the commentor remain reasonable alternatives until the SPD EIS ROD is issued. However, DOE eliminated as unreasonable the 8 alternatives that would involve use of portions of Building 221-F with a new annex at SRS for plutonium conversion and immobilization, thereby reducing the number of reasonable alternatives to 15 that are analyzed in the SPD Final EIS. Table 2-1 was revised to reflect the deleted alternatives: 3B, 5B, 6C, 6D, 7B, 9B, 12B, and 12D. Alternative 12C was renamed 12B.

DOE acknowledges the commentor's statement that every candidate site, except Pantex, has at least one river running through or adjacent to it.

MD188-25

Socioeconomics

Section 3.1 defines the ROI for the affected environment for human health risks to the general public from exposure to airborne contaminant emissions as an area within an 80-km (50-mi) radius of the proposed surplus plutonium disposition facilities. The analyses in Appendix J consider the potential contamination of agricultural products and livestock, and consumption of these products by persons living within an 80-km (50-mi) radius of the

- Section 3.4, Pantex Plant, Pages 3-88 to 3-124--the extensive agricultural production practices and programs within a 9-county area around Pantex nor adjacent to the site were not discussed or data listed. This information was provided to the ANRCP in January 1998 in a contract project final report and needs to be presented or summarized herein. The agricultural data should include: crops (types and acreage), soil management practices, livestock grazing (rangelands and wheat pasture), cattle feedlots including sources of feedstuff supplies, beef slaughtering and processing facilities, and grain storage. Dairies, horses swine, poultry, and other species of relevance are not identified as well. Potential secondary pathways of possible contamination--e.g. non-point source runoff, wind erosion, water erosion, etc.-- are not addressed. Similar information should be provided for all the other candidate sites in the respective sections within the Regions of Interest. For example, fruit, vegetable, cattle and dairy production are prominent in Idaho and Washington state in general vicinity of INEEL and Hanford plants, respectively, and South Carolina is a poultry production state. Also, no mention is made of local management districts for groundwater and surface water resources; these include the Panhandle Ground Water Conservation District No. 3, White Deer, which encompasses an 8-county area including Pantex.

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*Chapter 4, Environmental Consequences--The foregoing comments for Chapter 3 generally apply to this chapter as well.

- Section 4.6, Alternative 4A--Indicates that the air quality impacts will be minimal along with waste management, human health, or water resource risks. Increments added by operation of the pit conversion at Pantex will be non-existent or minimal (Table 4-5 vs. Table 4-58), and resultant site concentrations will be far below BPA or TNRCC ambient air quality standards for most contaminants and below EPA NAAS for PM10 on both an annual and 24-hour averaging time basis.

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candidate sites. The analyses of doses consider bioaccumulation of radioactivity in grain crops, forage, and animals (and the resultant effects on ingestion doses to humans), and all potential dose pathways including direct ingestion, inhalation, external ground exposure, and plume immersion. These analyses indicate that the potential impacts of normal operation of the pit conversion, immobilization, and MOX facilities on agricultural products, livestock, and human health at any of the sites would likely be minor. The analysis takes into account plutonium doses; bioaccumulation of radioactivity in grain crops, forage, and animals (and the resultant effects on ingestion doses to humans); and all potential dose pathways including direct ingestion, inhalation, external ground exposure, and plume immersion. Transience consideration would have a negligible effect on dose results. Although specific agricultural data were not identified for each candidate site in Chapter 3 of Volume I, the 1987 Census of Agriculture was used as the source to generate site-specific data for food production in Appendix J for each of the candidate sites.

Section 3.4.7.2.1 states that Pantex is in the Panhandle Groundwater District 3, which has the authority to require permits and limit the quantity of water withdrawn. Impacts of releases of radioactivity from the proposed facilities at each candidate site on the food production chain are discussed in Appendix K. Section 4.26 and Appendix J were revised to discuss potential impacts of radioactive emissions on agriculture and water resources.

The remainder of this comment is addressed in response MD188-23.

MD188-26

Air Quality and Noise

DOE acknowledges the comment.

*Appendix F, Impact Assessment Methods, and Appendix G, Air Quality--

- Does not include information for any site concerning:
 - agricultural production practices
 - accidental releases--explosion, fires, spills, etc.
 - dispersion modeling
 - areas affected
 - redistribution of particulates from Pantex by water or wind erosion.

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*Appendix I, Socioeconomics

- Does not include discussion concerning agricultural production, land use, or rural residents including whether or not they could be affected.

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*Appendix J, Human Health Risks--

- The agricultural data mentioned (from the 1987 Census of Agriculture) but not shown should be presented for all four sites. This information should be presented in a separate Appendix.
- Other agricultural data sources or more recent vintage than the Census of Agriculture are readily available as well, from entities such as the State Crop and Livestock Statistical Services, the Cooperative Extension Services (e.g. Texas Agricultural Extension Service), the USDA-Farm Services Agency, etc..
- Analysis does not appear to take into account Pu doses, transience, or effects on field grain crops, forages, or animals, nor contamination pathways other than direct ingestion.

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The opportunity to review and comment on the SPD EIS document is appreciated. I hope these remarks are useful in strengthening the document and provide the basis for continuing development of greater scientific information regarding the environmental quality for Pantex and other sites in other locations also.

MD188

MD188-27

Air Quality and Noise

There are no changes in agricultural production practices associated with any of the alternatives. The remainder of this comment is addressed in responses MD188-23 and MD188-25.

The accident analyses in this SPD EIS are considered to be bounding and address a representative spectrum of possible operational accidents. No major chemical accidents were identified. As discussed in Appendix K.1.1, additional documentation on hazards and accidents would be developed for each facility during the design and construction process.

Appendixes F, G, J, and K describe the methods used to model air-quality-related impacts, provide the emission rates for each facility and alternative, discuss the areas affected, and the treatment of particle deposition. Because the radiological analysis is concerned with the MEI, the initial deposition of radionuclides and its effect on this individual are analyzed. Appendix J was revised to include expected radiological release quantities from each of the proposed surplus plutonium disposition facilities.

The remainder of this comment is addressed in response MD188-25.

MD188-28

Human Health Risk

Detailed agricultural data for each of the candidate sites are presented in the *Health Risk Data for Storage and Disposition of Weapons-Usable Fissile Materials Programmatic Environmental Impact Statement* (HNUS, October 1996). That data report supports this SPD EIS as well as the *Storage and Disposition PEIS*. A separate appendix is not needed to repeat these data verbatim; the data report is available in DOE public reading rooms. The agricultural data in this EIS are used to estimate the doses to the population in 2010. For these projected doses, DOE considers the data from the 1987 Census of Agriculture to be representative of the areas evaluated. These agricultural data are also consistent with those used for dose assessments in the *Storage and Disposition PEIS*.

The remainder of this comment is addressed in response MD188-25.

MD188-29

Cost Report
Because this comment relates directly to the cost analysis report, it has been forwarded to the cost analysis team for consideration. 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, is 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.

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COMMENTS ON COSTS ANALYSIS

The cost analysis is really a summary, so it is very difficult to determine how the numbers were developed.

On p 3-3, the comment is made that the cost to transport the plutonium from Pantex can vary from \$10M to \$15 M. At the top of p. 3-4 the statement is made that there would also be an additional cost of \$69M for repackaging if the FDBCF is not located at Pantex, and this cost is charged to the other facilities. Yet, the operating costs that are estimated for Pantex are among the highest of any of the facilities. Why?

On p 3-8, the design and construction costs of the MOX FFY at Pantex are estimated to be: Design and construction - \$510M; Operating Cost - \$610M; Total Cost - \$1,200M. This mistake is repeated throughout the report. These are figures that should be re-analyzed.

In our work with the SRS team, they emphasized that the most vulnerable link in the disposition system was probably the SST transportation, and that expiring weapons-grade Pu to transportation rather than material that has already been transformed into a substance less attractive as a target for theft and terrorists would be highly desirable. How was that incorporated into the report?

The report does not allow for a more detailed analysis; however, these observations were made even based on this document.

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MD188

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RUSSIAN ASPECTS OF THE SPDEIS AND THE SITING OF THE PDCF

Timeliness is the key issue. It has been more than 4 years since the NAS declared the surplus plutonium a "clear and present danger." The United States needs to move quickly to maintain forward movement in Russia. Financing is not the only issue in Russia; they will not disposition unless the U.S. does so as well.

The United States should push for the earliest possible demilitarization of pits. I suggest putting U.S./Russian material under IAEA safeguards, thereby creating "political irreversibility." By doing this, it would show the world that we are serious about NPT commitments. Finally, we should separate demilitarization from the disposition technologies which are likely to experience significant delays due to political issues. Placing the PDCF at Pantex provides the quickest route toward demilitarization.

The U.S. would not look favorably on Russians shipping pits unnecessarily; therefore, we should practice what we preach. There is no reason to ship pits from Pantex to SRS when the pits are already housed at Pantex. It just makes sense to site the PDCF at Pantex.

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MD188

MD188-30

Alternatives

The United States will continue to work with Russia according to agreed-upon paths and timing for surplus plutonium disposition.

Potential transportation impacts of pit disassembly and conversion at Pantex are summarized in Chapter 4 of Volume I and Appendix L. Under any of the proposed alternatives, the risks to the public from the transportation of these materials are small as shown in Table L-6.

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A key element in the surplus plutonium disposition mission will be provisions to allow for either bilateral inspections or multilateral inspection of excess weapons material. These functions contribute to important U.S. policy issues on transparency and openness relating to the disposition of surplus weapons materials both in the United States and the Russian Federation. Bilateral inspection with Russia will be important to develop a mutual level of confidence with the Russians for the entire disposition effort. Such bilateral inspection agreements will also provide confirmation to the U.S. through our inspection of Russian facilities that their efforts are proceeding accordingly. Likewise, potential multilateral inspection under the auspices of the International Atomic Energy Agency in Vienna, Austria, will give assurances to the global community of U.S. leadership in this key endeavor.

While the inspection function will be an ancillary enterprise, it also will have some environmental impact. Accommodations must be made for the facilities, equipment and individuals performing this role. These requirements can presumably be handled in a straightforward way with minimal environmental disruption.

In terms of the inspection function and its relation to the Pit Disassembly and Conversion Facility (PDCF), the input material to the PDCF will be in forms which are classified. However, the output material will be either converted to a metal "hockey puck" or plutonium oxide powder. Subsequent storage of this material will not be of a classified nature and will be subject to international inspection. It is noted that by locating the PDC Facility at the Pantex Plant, the necessary Perimeter Inspection, Detection and Alarm System (PIDAS) is in place to guarantee the security of weapons grade material. Reconfiguration of the existing areas at Pantex could be done in a straightforward way to allow for the inspection requirements while assuring that classified information and material is not compromised.

A second aspect of the inspection requirements is also worth noting. As mentioned above, it is the material produced by the PDCF which will be subject to inspection. This precludes the possibility, which has been suggested elsewhere, that a fully integrated facility might be used which will have weapons pits as the input and MOX fuel as the output. Such a facility would not allow for the inspection of the product of the pit disassembly and conversion steps. If it were to be proposed at a Russian installation, presumably such a fully integrated approach with restrictions for the inspection of unclassified material would not be acceptable to the United States. We would want to be able to assure that the MOX fuel coming out was the result of the pits going in. As a result, separation of the pit conversion function from the MOX fuel fabrication will be necessary.

The Pantex Plant provides the opportunity for a facility for pit disassembly and conversion which meets, in a straightforward way, the requirements for key bilateral and multilateral inspection while minimizing the number of steps for the handling of sensitive weapons components. The selection of Pantex for the PDC Facility should assure expediency in carrying out U.S. and international nonproliferation goals. Bilateral and IAEA requirements could be more easily facilitated at Pantex thereby implementing pit disassembly and conversion more quickly, entering into an agreement to reach this same result with the Russians, and achieving the critical goal of timeliness which is a key factor in the surplus plutonium disposition mission.

MD188-31

Nonproliferation

DOE acknowledges the commentator's support for Pantex, and appreciates the input on existing capabilities at the site. Further, DOE agrees that bilateral monitoring with Russia of the classified plutonium material and international inspection of the unclassified material would give assurances to the global community of U.S. leadership in plutonium disposition. Once the United States and Russia complete an agreement providing the basis for exchanging classified nuclear information, the procedures to be used for inspection of pits in storage could potentially be adapted to contribute to bilateral monitoring of the pit conversion facility. International monitoring and inspection of the unclassified plutonium would also allow the United States and Russia to demonstrate to each other and to the international community that disposition was being carried out under stringent nonproliferation controls, and that the excess plutonium was not being diverted for reuse in weapons.

Accommodation for international inspection of the unclassified material was incorporated in the design of the pit conversion facility, as shown in Figure 2-7. The MOX facility would be a separate function and would only process unclassified materials; accommodation for international inspection was incorporated in the design of that facility, as shown in Figure 2-14.

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Because of the public's concern about environment, safety, and health issues associated with Pantex, the Center was asked by the Governor's office to perform an independent safety and health analysis of the plutonium conversion mission and mixed oxide fuel fabrication mission at Pantex. The Center's technical team included:

- Dr. Ian Hamilton, Texas A&M University, certified health physicist
- Dr. Randy Charbonne, University of Texas, professional environmental engineer
- Dr. John Sweden, agricultural professional engineer, Resident Director of the Agricultural Research and Extension Center
- Dr. Bobby Stewart, West Texas A&M University, agricultural scientist
- Dr. Nolan Clark, agricultural professional engineer, Director of the USDA Agricultural Research Service, Bushland Texas
- Dr. Jim Rock, Texas A&M, certified industrial hygienist
- Dr. Paul Vaughn, Texas Tech University, agricultural communications specialist

The results of that independent study were provided to elected officials, Texas regulators, and citizens of Amarillo in November of 1997. The study was conducted by the team named above. The study concluded that the risks associated with the new missions are comparable to the risk of current operations at Pantex and there are no impacts on water resources, water quality, soil or air resources.

We were also asked by the Governor's office to have the university principal investigators review the draft Surplus Plutonium Disposition Environmental Impact Statement. As in the risk characterization effort presented in November, the researchers find that there are no significant environmental or safety impacts associated with the pit disassembly conversion or MOX mission coming to Pantex. These results are presented in the following pages.

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MD188-32

DOE acknowledges the commentor's conclusion that operationally there would be no impact on water resources at Pantex.

Infrastructure

MD188-33

DOE acknowledges the commentor's conclusion on waste management at Pantex.

Waste Management

COMPARISON OF RISK CHARACTERIZATION AND SPD EIS

Main points brought out at the Amarillo Public Meeting (August 11, 1998):

- There are no adverse environmental impacts associated with conversion and hence no environmental discrimination between Pantex and SRS (SRS sees the word "modest difference")
- We will use the expertise and results from the Risk Characterization to validate DOE's EIS that there are no significant environmental impacts of PDCF at Pantex
- There is no real cost difference between SRS and Pantex for conversion.
- There is definitely a timeliness, radiological dose and transportation issue if it is decided to move all missions to SRS.

1. ANNUAL WATER USAGE

	RISK CHARACTERIZATION (millions of gal/yr)	EIS (millions of gal/yr)
Carson County Water Users	37,000	33,200
Current Pantex Operations	229 (0.67%) (1995)	145 (0.34%) (1995)
SPD Conversion (1995) (see Conversion to SRS) EIS Table 4-225 on p. 4-370 & p. 4-113	127 (0.67%)	127 (0.66%)

SUMMARY OF WATER

- RISK CHARACTERIZATION RESULTS ARE COMPARABLE TO EIS
- OPERATIONALLY, THERE WILL BE NO IMPACT ON WATER RESOURCES

2. WASTE

WASTE TYPE	RISK CHARACTERIZATION ANNUAL WASTE TREATMENT CAPACITY (kg/yr)	RISK CHARACTERIZATION ANNUAL WASTE TREATMENT CAPACITY (kg/yr)	EIS TREATMENT CAPACITY (kg/yr)
TRU	17	18	2001 waste would be stored, packaged, and conditioned in WPP waste treatment systems. Until TRU waste could be transported or conditioned before packaging the waste for storage.
Spent TRU	1	1	Spent TRU would be packaged, conditioned, and transported in the same facilities before being transferred for treatment and conditioning at the WPP waste treatment systems. Spent TRU would be stored in conditioned before being packaged for storage.
LLW	40.30	40	LLW would be packaged, conditioned, and transported in the same facilities before being transferred for treatment and conditioning at the WPP waste treatment systems. LLW would be stored in conditioned before being packaged for storage.
Mixed LLW	13	1	Mixed LLW would be conditioned, packaged, and stored in the same facilities before being transferred for treatment and conditioning at the WPP waste treatment systems. Mixed LLW would be stored in conditioned before being packaged for storage.
Residues	88	2	Residues would be packaged, conditioned, and transported in the same facilities before being transferred for treatment and conditioning at the WPP waste treatment systems. Residues would be stored in conditioned before being packaged for storage.
Nonhazardous Liquid	34,000	25,000	Nonhazardous liquid waste would be packaged in drums and conditioned before being transferred for treatment and conditioning at the WPP waste treatment systems. Nonhazardous liquid waste would be stored in conditioned before being packaged for storage.
Solid	576	1,300	Nonhazardous solid waste would be packaged in drums and conditioned before being transferred for treatment and conditioning at the WPP waste treatment systems. Nonhazardous solid waste would be stored in conditioned before being packaged for storage.

EIS Characterization Table 2.3 on p. 2-3 (upper) & p. 6 (lines)

EIS Table 4-22 on p. 4-24 & p. 4-25 to 4-40

SUMMARY OF WASTE

- RISK CHARACTERIZATION RESULTS ARE COMPARABLE TO RIS
- ALL WASTES GENERATED FROM THESE PROCESSES CAN BE MANAGED WITH NO ADVERSE EFFECTS
- WASTES FROM THESE PROCESSES WILL BE MINIMAL
- THE SMALL AMOUNT OF LIQUID WASTES WILL BE SOLIDIFIED FOR DISPOSAL
- WASTES WILL BE SHIPPED OFF-SITE FOR FINAL DISPOSAL
- IT IS ASSUMED THAT TRU WASTE WOULD BE STORED ON THE SITE UNTIL 2016, BECAUSE CURRENT SCHEDULES FOR SHIPMENT OF TRU WASTE TO WIPP FROM SURPLUS PLUTONIUM DISPOSITION FACILITIES WILL BEGIN IN 2016 (DES P. 4-53)

- 3. BACKGROUND FOR ROUTINE RELEASES TO PROVIDE RELATIVE IMPACT FOR AIR EMISSIONS AND ENVIRONMENTAL IMPACT FROM A HYPOTHETICAL ACCIDENTAL RELEASE

FOR THE AREA OF PANTEX AND AMARILLO			
RISK CHARACTERIZATION	DOSE (rem/yr)	SOURCE	DOSE (rem/yr)
Actual Committed Dose	33	Domestic and External Theoretical Radiation	93
Actual Annual Theoretical Dose	28	Internal Theoretical Radiation	29
Actual Annual Worker Exposure	200	Radon In Home (Radon)	260
Actual Total	253	Other Background Radiation*	42
Other Background Radiation includes background radiation, cosmic ray dose, and consumer and industrial radiation.			397

*Other Background Radiation includes background radiation, cosmic ray dose, and consumer and industrial radiation. See Table 3-32 on p. 3-183.

4. AIR EMISSIONS

ROUTINE RELEASES			
RISK CHARACTERIZATION		RISK CHARACTERIZATION	
MATERIAL	ANNUAL EMISSIONS (g/yr)	ANNUAL EMISSION DOSE (rem/yr)	ANNUAL DOSE (rem/yr)
Plutonium	1.4 x 10 ⁴	1 x 10 ⁴	6.2 x 10 ⁻⁴
Uranium	1	5 x 10 ⁴	6.2 x 10 ⁻⁴

RISK CHARACTERIZATION		RISK CHARACTERIZATION	
METHODOLOGY	ANNUAL EMISSIONS (g/yr)	ANNUAL EMISSION DOSE (rem/yr)	ANNUAL DOSE (rem/yr)
Plutonium	1.4 x 10 ⁴	1 x 10 ⁴	6.2 x 10 ⁻⁴
Uranium	1	5 x 10 ⁴	6.2 x 10 ⁻⁴

Risk Characterization 2.3.18 (DES P. 137 on p. 3-51 & p. 3-51)

IMPACT OF ROUTINE RELEASES

- RISK CHARACTERIZATION RESULTS ARE COMPARABLE TO RIS
- ANY ROUTINE RELEASES WOULD BE ARE 999 TIMES LOWER THAN BACKGROUND (22%)
- VARIATION IS NOTHING
- OPERATIONALLY, THERE WILL BE NO IMPACT ON AIR RESOURCES
- OPERATIONALLY, THERE WILL BE NO IMPACT ON SOIL
- OPERATIONALLY, THERE WILL BE NO IMPACT ON WATER QUALITY

MD188-35 Human Health Risk
DOE acknowledges the commentor's conclusion that doses that would be expected from an accident at Pantex are even lower than those presented in this SPD EIS.

MD188-36 Human Health Risk
DOE acknowledges the commentor's conclusion that the affected area from an accident analyzed in this SPD EIS would be smaller than that presented in the commentor's impact analysis because he was using a higher source term.

5. ENVIRONMENTAL IMPACT FROM A HYPOTHETICAL ACCIDENTAL RELEASE

SCENARIO	RISK CHARACTERIZATION	EIS
Acidic leachate of plutonium from surface water	DOSE (mrem/yr)	DOSE
Acidic leachate of plutonium from groundwater	7	N/A
	4	N/A

METHODOLOGY	RISK CHARACTERIZATION	EIS
Acidic leachate of plutonium from surface water	Acidic leachate of plutonium from surface water	Acidic leachate of plutonium from surface water
Acidic leachate of plutonium from groundwater	Acidic leachate of plutonium from groundwater	Acidic leachate of plutonium from groundwater
Surface Water Contaminant	Surface Water Contaminant	Surface Water Contaminant
Groundwater Contaminant	Groundwater Contaminant	Groundwater Contaminant

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- SUMMARY
- RISK CHARACTERIZATION EXAMPLE WAS PURELY BOUNDING CALCULATION AND NOT TYPICALLY PERFORMED IN THE NEPA PROCESS
 - THE EIS SOURCE IS SMALLER THAN THE RISK CHARACTERIZATION SOURCE
 - THEREFORE WE WOULD EXPECT EVEN LOWER DOSES

6. IMPACTS ON AGRICULTURE OF A HYPOTHETICAL ACCIDENTAL RELEASE

PATHWAY	RISK CHARACTERIZATION	EIS
Inhalation of suspended material	110	N/A (see table)
Ingestion - deposition on fresh fruit	130	N/A
Ingestion - deposition on fresh vegetables	130	N/A
Ingestion - deposition on grain	98	N/A
Ingestion - milk, deposition on dairy	2	N/A
Ingestion - meat, deposition on large	2	N/A

METHODOLOGY	RISK CHARACTERIZATION	EIS
Inhalation of suspended material	Inhalation of suspended material	Inhalation of suspended material
Ingestion - deposition on fresh fruit	Ingestion - deposition on fresh fruit	Ingestion - deposition on fresh fruit
Ingestion - deposition on fresh vegetables	Ingestion - deposition on fresh vegetables	Ingestion - deposition on fresh vegetables
Ingestion - deposition on grain	Ingestion - deposition on grain	Ingestion - deposition on grain
Ingestion - milk, deposition on dairy	Ingestion - milk, deposition on dairy	Ingestion - milk, deposition on dairy
Ingestion - meat, deposition on large	Ingestion - meat, deposition on large	Ingestion - meat, deposition on large

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- SUMMARY
- RISK CHARACTERIZATION WAS PURELY BOUNDING CALCULATIONS AND NOT TYPICALLY PERFORMED IN EIS
 - THE EIS SOURCE IS SMALLER THAN THE RISK CHARACTERIZATION SOURCE
 - HENCE THE AFFECTED AREA FROM A HYPOTHETICAL ACCIDENT RESULTING IN POTENTIAL RELEASE WOULD BE SMALLER
 - NOTE: EIS P. 6.2 PATHWAYS TO GROUND AND SURFACE WATER INCLUDING RESUSPENSION AND INHALATION OF PLUTONIUM AND RISK FROM CONTAMINATED CROPS WERE STUDIED AND FOUND NOT TO CONTRIBUTE AS SIGNIFICANTLY AS DOSE TO INHALATION

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MD188-37

Facility Accidents

DOE acknowledges the commentor's conclusion that the societal risks posed by the proposed plutonium disposition facilities would be comparable to those associated with Pantex's current activities.

7. POTENTIAL IMPACTS DUE TO HYPOTHETICAL ACCIDENTS

RISK CHARACTERIZATION				EIS			
ACCIDENT	PROBABILITY (yr ⁻¹)	MATERIAL RELEASED (g)	POTENTIAL CANCERS PER YEAR OF FACILITY OPERATION	ACCIDENT	FREQUENCY ^a (yr ⁻¹)	SOURCE TERM (s)	LATENT CANCER FATALITIES PER YEAR ^b WITHIN 50 km
Duck Fire	5.0 x 10 ⁻⁴	9	1.2 x 10 ⁻⁴				
Criticality	1.6 x 10 ⁻⁴		3.8 x 10 ⁻¹⁰	Criticality	Extremely unlikely 10 ⁻⁶ to 10 ⁻⁸	1.0 x 10 ¹⁰ Plutonium	1.4 x 10 ⁻⁴
Degradation	1.0 x 10 ⁻⁴	4.8 x 10 ⁻⁴	3.9 x 10 ⁻¹⁰	Population	Unlikely 10 ⁻⁴ to 10 ⁻⁶	3.2 x 10 ¹⁰	2.4 x 10 ⁻⁴
Cell Fire	1.0 x 10 ⁻⁴	9.8 x 10 ⁻⁴	1.9 x 10 ⁻¹⁰	Fire	Unlikely 10 ⁻⁴ to 10 ⁻⁶	1.2 x 10 ¹⁰	9.1 x 10 ⁻⁵
Oxy. Explosion	5.0 x 10 ⁻⁴	45	1.3 x 10 ⁻⁴	N/A	N/A	N/A	N/A
Spill	4.5 x 10 ⁻⁴	8.8 x 10 ⁻⁴	1.6 x 10 ⁻¹⁰	Leaks/spills of nuclear material	Extremely unlikely 10 ⁻⁶ to 10 ⁻⁸	4.4 x 10 ¹⁰	3.3 x 10 ⁻⁴
Non- Earthquake	1.3 x 10 ⁻⁴	100	6.0 x 10 ⁻⁴	Beyond- design-basis ^c earthquake	Extremely unlikely to beyond extremely unlikely 10 ⁻⁶ to 10 ⁻⁸ to less than 10 ⁻⁸	3.9 x 10 ¹⁰	3.2 x 10 ⁻⁴
Truck Fire	3.2 x 10 ⁻⁴	30	3.8 x 10 ⁻⁷	N/A	N/A	N/A	N/A
NOT CREDIBLE							
Max. Cell Fire	2.0 x 10 ⁻⁴	N/A	N/A	Beyond- design-basis fire	Beyond extremely unlikely less than 10 ⁻⁸	3.7 x 10 ¹⁰	1.4 x 10 ⁻⁴
A/C line Ordnance Storage Facility	2.0 x 10 ⁻⁴	N/A	N/A				
A/C line DCF	4.7 x 10 ⁻⁴	N/A	N/A	Aircraft crash	Beyond extremely unlikely less than 10 ⁻⁸	2.2 x 10 ¹⁰	1.8 x 10 ⁻⁴

Risk Characterization p. 11, p. 14, p. 16 (Risks), EIS Table K-12 on p. K-31

^aThe annual risk in potential cancers per year of facility operation is the probability of occurrence of the event that leads to a health effect (in units of yr⁻¹) multiplied by the health effect consequence per event (e.g., total cancers per accident event) (Risk Characterization p. 11 of Preliminary).

^bThe frequency listed for each accident category represents the estimated overall annual probability of occurrence for that type of accident. (EIS p. 4-40)

^cRisk is usually defined as the product of the consequences (in terms of dose e.g., person-rem or health effects e.g., latent cancer fatalities) and estimated frequency of a given accident (per year). (EIS p. K-1)

^dDesign basis for Performance Category 5 plutonium facility - designed to withstand the 1700,000 year earthquake with the performance goal that occupant safety, continued operations, and hazard containment being assured.

^eBeyond design basis - partial or total collapse of structure, spills, possible fires, and loss of confinement of plutonium powder (p. K-5)

CURRENT PANTEX OPERATIONS

ACCIDENT TYPE	POTENTIAL CANCERS PER YEAR OF FACILITY OPERATION
HE Isolated Pu Dispensal - Nat. Event	7.2 x 10 ⁻⁴
HE Isolated Pu Dispensal - Nat. Event	6.3 x 10 ⁻⁴
Fire Driven Pu Release - Nat. Event	2.9 x 10 ⁻⁴
Pu Release - A/C or Seismic	6.8 x 10 ⁻⁴
Pu Release - Nat. Event	1.5 x 10 ⁻⁴

Risk Characterization p. 17 (Risks)

RISK SUMMARY

OUR RESEARCH SHOWS THAT THE POTENTIAL SOCIETAL RISKS ASSOCIATED WITH THE PROPOSED NEW MISSIONS WILL BE COMPARABLE TO THAT FROM CURRENT ACTIVITIES.

MD188-38

Waste Management

DOE agrees that impacts from the management of waste generated by surplus plutonium disposition activities would not be major, although costs may be higher at Pantex than at some of the other DOE sites due to the lack of an existing TRU waste management infrastructure. The construction of the Hazardous Waste Treatment and Processing Facility is independent of the decision on the siting of facilities for surplus plutonium disposition.

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The total amount of space that would be required for storage of TRU waste resulting from operations of the planned facility at Pantex is around 200000, or an area that is equivalent to a modest size residential home. According to the DOE, this required space would be added onto the conversion facility and would constitute only 1.5% of the total space required for the planned facility. The total amount of space required to store LLW before shipment is about 0.25 acres, or 8% of the planned Hazardous Waste Treatment and Processing Facility. I am assuming that the DOE plans on constructing this WM facility are unrelated to the siting decision (Reference to the WAFES). By my interpretation as an engineer, I do not believe that the facilities required to store this waste before shipment is significant compared to the overall magnitude of the project. By DOE's admission within the Surplus Plutonium Disposition Draft EIS, they do not believe that the waste generated from this facility is significant, or in DOE's own words, "impacts of the management of TRU waste at Pantex should not be major," and "impacts of the storage of additional quantities of LLW at Pantex should not be major." Therefore, one can conclude that the required waste management should not be used as a discriminator in the siting of a conversion facility.

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DOE gives 3 reasons for selecting SRS for MOX:

- Activity complements existing missions.
- Takes advantage of existing infrastructure.
 - "Pantex does not offer a comparable infrastructure, including waste treatment."
- Staff expertise.

No supporting information is given to support conclusion #1. What existing missions are complemented? None seem obvious. There is no ongoing dry plutonium processing at SRS.

No supporting information is given to support conclusion #3:

- Has SRS ever done MOX fuel fabrication?
- Has SRS ever fabricated standard ceramic reactor fuel?
- Is SRS currently fabricating any reactor fuel?
- Is SRS doing any dry Pu processing?
- What expertise are we talking about?

If we examine #2 more closely, we find out that the Pantex site does not require any additional construction over SRS for the MOX facility (this can be determined by looking at the wastes produced during construction and the employment required during construction which are identical for MOX for SRS and Pantex), so what infrastructure is being taken advantage of that isn't at Pantex? Also, the document repeatedly states that the wastes should "not have a major impact" at Pantex, so what waste treatment facilities are Pantex lacking? In fact, in the section on cumulative results at SRS (summary page S-36), the "cumulative waste volume for hazardous waste exceeds the treatment and storage capacity" and the "treatment capacity for LLW could be exceeded." Also, projected water requirements will exceed current site capacity if APT is built. So if anything, SRS should be at a disadvantage. Also, no analysis was done on the environmental effects of expanding the water capacity.

If conversion is not done at Pantex, all the pits will have to be repackaged in AT400 (or some other approved transportation container) and shipped to SRS. This will not have to be done if the facilities are located at Pantex. The EIS estimates a 40% dose reduction to Pantex workers due to this. Were ALARA considerations evaluated as part of the decision process?

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Alternatives

Complementary missions that are ongoing at SRS include plutonium storage, nuclear materials stabilization, waste management, and research and development.

Existing infrastructure includes DWPF; waste management facilities such as the TRU waste certification facility, Consolidated Incineration Facility, and LLW disposal facilities; and safeguards and security systems. DOE is presently considering a replacement process for the in-tank precipitation (ITP) process at SRS. The ITP process was intended to separate soluble high-activity radionuclides (i.e., cesium, strontium, uranium, and plutonium) from liquid HLW before vitrifying the high-activity fraction of the waste in DWPF. The ITP process as presently configured cannot achieve production goals and safety requirements for processing HLW. Three alternative processes are being evaluated by DOE: ion exchange, small tank precipitation, and direct grout. DOE's preferred immobilization technology (can-in-canister) and immobilization site (SRS) are dependent upon DWPF providing vitrified HLW with sufficient radioactivity. DOE is confident that the technical solution will be available at SRS by using radioactive cesium from the ion exchange or small tank precipitation process. A supplemental EIS (DOE/EIS-0082-S) on the operation of DWPF and associated ITP alternatives is being prepared. Although the SRS staff may not have training in dry plutonium processing, they are trained in plutonium processing. In addition, reactor fuel fabrication was conducted in M-Area at SRS in support of production reactor operation, which ceased in 1992.

MD188-40

Waste Management

There would be advantages to siting the proposed surplus plutonium disposition facilities at sites with active plutonium facilities, or to collocating two or more surplus plutonium disposition program facilities at a site. As described in Section 2.3.1, some infrastructure such as that associated with safeguards and security could be shared. Although DOE recognizes that some savings could be realized by collocating facilities, this SPD EIS includes a conservative analysis that generally does not account for these advantages. Section S.6 of the *Summary* states that because TRU waste is

not routinely generated and stored at Pantex, TRU waste storage space would be designated within the proposed surplus plutonium disposition facilities. Storage within the proposed facilities would only be required at Pantex because the other DOE sites have existing onsite TRU waste storage facilities. Section S.7 of the *Summary* states that although the cumulative volume of hazardous waste would exceed the treatment and storage capacity at SRS, major impacts on the waste management infrastructure would be unlikely because hazardous waste is generally not held in long-term storage, but rather is treated and disposed of at both onsite and offsite facilities. This section also states that although treatment capacity for LLW could be exceeded at SRS, major impacts would be unlikely because most LLW could be disposed of without treatment. The source of water for the accelerator, if built, would have been the Savannah River and it would not have affected the ability of the site to supply water to the proposed plutonium disposition facilities. The cumulative impacts section, Section 4.32, has been changed accordingly. The tritium production ROD that was issued in May 1999 chose the commercial light water reactors for tritium production.

MD188-41**Transportation**

ALARA considerations were used by the engineering, technical, and safety and health personnel who prepared the source information upon which the environmental impacts in this SPD EIS were determined. ALARA considerations would continue to be applied during the detailed design, construction, operation, and eventual D&D of the proposed surplus plutonium disposition facilities. DOE acknowledges that any decision to locate the pit conversion facility at a site other than Pantex would result in additional repackaging for shipment, and thus, increased dose to workers at Pantex. Section 2.18 and Appendix L.5.1 were revised to discuss repackaging the pits.

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**THE SPD EIS TREATMENT OF PROLIFERATION CONCERNS
DUE TO TRANSPORTATION**

- It appears that the majority of the shipments that involve significant volumes of material, and significant proliferation concern (as defined by an indication, in Table S-3 on p. S-20, to use SSTs) would occur as follows:
 - Campaign 1: 17 metric tons (t) of surplus nonpit Pu, from various DOE sites to the conversion immobilization facility.
 - Campaign 2: 33 t of surplus pits and clean metal from Pantex to the pit disassembly/conversion facility.²
 - Campaign 3: 33 t of weapons-grade Pu, in the form of PuO₂, from the pit disassembly/conversion facility to the immobilization or MOX facilities.
 - Campaign 4: 33 t of weapons-grade Pu, in MOX fuel bundles, from the MOX facility to a domestic commercial nuclear reactor.
- The second of the "equally weighted screening criteria" (p. S-13) "used to reduce the large number of possible facility and site combinations to the range of reasonable alternatives" (p. S-13) is entitled "proliferation concerns due to transportation of materials." It is applied in such a way that any alternative that involves all of campaigns 2, 3 and 4 is eliminated from further consideration. But NEPA requires that "all reasonable alternatives be considered." Therefore, in effect the application of this criterion puts the DOE on record as believing that proliferation concerns associated with transportation of these materials are so great that a reduction of 33 t in the total amount of weapons-grade Pu to be shipped is sufficient to deem an otherwise reasonable alternative as unreasonable.
- But there are alternatives that would provide an even further reduction in the amount to be shipped:
 - If all three facilities were located at Pantex, then only Campaign 1 (17 t) would be necessary. This is a 33 t reduction from the 50 t otherwise required under any other immobilization only option.
 - If a hybrid option were deemed essential for other reasons (e.g., achieving an agreement with the Russians), then collocating the pit conversion and MOX facilities at Pantex would require only Campaigns 1 and 4, which is a 33 t reduction in the amount to be shipped under any other hybrid option.

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² This assumes all surplus pits and clean metal selected for disposition already are stored at Pantex. On p. S-4 it is stipulated that "most of the surplus pits are currently located there" (i.e., at Pantex).

MD188-42

Transportation

DOE acknowledges the commentor's preference for Alternatives 9 or 10, which involve collocating pit conversion and MOX facilities at Pantex. The location of the immobilization facility was considered in the *Storage and Disposition PEIS*, and the ROD states DOE's strategy to immobilize at either Hanford or SRS. Therefore, this SPD EIS does not analyze immobilization at Pantex. Table L-6 shows the total transportation risks for all alternatives, including Alternatives 9 and 10. The transportation impacts for the preferred alternative, Alternative 3, are similar to Alternatives 9 and 10.

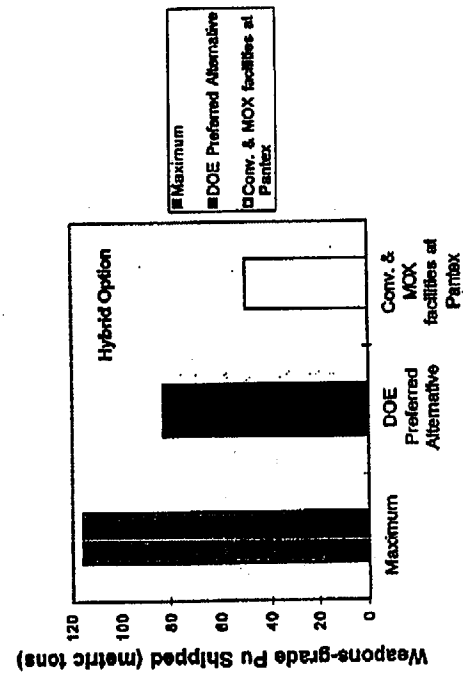
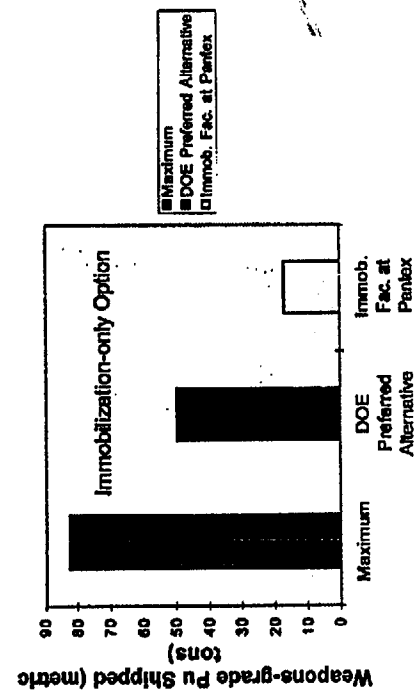
- Summary: If proliferation concerns associated with shipment of these materials is so great that a reduction of 33 1 in the amount to be shipped is sufficient to cause an otherwise reasonable alternative to be deemed unreasonable, then why is there no record that those alternatives leading to similar further reductions were given commensurate credit?

- The following bar charts are an effort to present this graphically. DOE deems the shipping reductions in going from the left bars to the middle bars as sufficient to make alternatives requiring the maximum shipment unreasonable, on the basis of the associated proliferation risk. But there is no evidence I can find that they value the equivalent further reduction in going from the middle to the right bars - which just happen to favor Ponce - as worth a tinkered dam.

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**Surplus Plutonium Disposition
Draft Environmental Impact Statement
Comments**

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MD188

Surplus Plutonium Disposition

Processing and handling of unincorporated weapons-grade plutonium represents a clear departure from the historical radiological assembly/disassembly operations conducted at Pantex Plant. Given the restrictions of law and existing regulations, the Texas Department of Health has actively maintained limited surveillance of the Pantex Plant boundary and at readily accessible pre-selected monitoring points on site. Although by no means considered to be optimum, and given the nature of operations involving only handling of pre-fabricated radioactive components, this surveillance was considered to be the best achievable under the circumstances. To date, no significant off-site radiological degradation of the environment has been detected.

Any change in the nature of the mission or operations at the Pantex Plant must be undertaken with utmost sensitivity to needs of the neighboring community in addition to maximum attention to full compliance with published standards for protection against radiation. Texans must be assured the public health, the public safety, and the surrounding environment will be adequately protected.

While full Nuclear Regulatory Commission licensing of the Mixed-Oxide Fuel Fabrication Facility should be aggressively pursued, external regulatory oversight of the Plutonium Pit Conversion Process is not possible under existing law, nor is legislation to empower external regulation of Department of Energy Special Nuclear Materials operations likely to occur in the foreseeable future. There is, however, a discrete step in the pit conversion process, when Special Nuclear Material is removed from the pit shell and changed from its classified shape, that the Department of Energy should explore as a candidate for external oversight. This step in the process roughly coincides with the point of potential workplace and environmental radiological contaminant generation. The succeeding steps in the process should not by nature be precluded from external review. Cooperative activities undertaken by the Department of Energy over the past decade serve to indicate that independent external oversight can occur within national security constraints. The activities of the Defense Nuclear Facility Safety Board, Environmental Protection Agency, Occupational Safety and Health Administration, and of states hosting Department of Energy Facilities have produced some measure of compliance with accepted industry practice and published regulatory standards. Independent external oversight is clearly feasible, and would be in the best interest of the Department of Energy, the State of Texas, and the Nation. Should the Department of Energy decide to site the Mixed Oxide Fuel fabrication facility, the Pit Disassembly and Conversion Facility, or both facilities at Pantex Plant, active state participation in the review of facility

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DOE Policy

DOE acknowledges the commentator's environmental and health-related concerns. This SPD EIS was prepared to provide a comprehensive description of proposed actions and alternatives and their potential environmental impacts. DOE believes that all activities that are part of the proposed action and alternatives are analyzed adequately in this EIS. Each of the proposed surplus plutonium disposition facilities would be subject to some form of independent oversight. The pit conversion and immobilization facilities would likely be subject to review by DNFSB, and the MOX facility would be under the purview of NRC. As discussed in Section 2.4, it is likely that the United States would voluntarily offer to have the proposed facilities placed under international safeguards. However, the process of implementing international safeguards is not as yet fully defined. That process is part of ongoing sensitive negotiations between the United States and Russia.

As discussed in Chapter 5, DOE (or DCS) would have to obtain new or modified applicable State or Federal permits or licenses for construction and operation.

Based on the decisions made in the SPD EIS ROD, site emergency management programs would be modified to consider new accidents not in the current program. Similarly, as discussed in Appendix L.3.2, the Transportation Safeguards Division has established emergency plans and procedures that would be invoked whenever special nuclear materials are being shipped.

design would be imperative. Lessons learned from past Department of Energy activities at other locations should be applied to operations proposals. Best available technology should be utilized in the construction of the facility to ensure containment and control of potential radioactive contaminants. Subsequent state routine monitoring of process controls, such as leak local exhaust ventilation, physical containment features and contaminant control procedures associated with the process would be necessary. Adequate resources would be required for the state to assemble and support a team of professionals dedicated to the routine surveillance of the new facilities.

An assessment of additional radiological impacts resulting from the proposed Pantex Plant expansion must receive priority consideration. The assessment would serve as the basis for further emergency planning efforts. Of particular interest would be issues relating to safe handling and transportation of the Special Nuclear Materials prior to processing, product resulting from processing and the wastes generated during the associated operations. Continued Department of Energy commitment to the upgrade of local emergency planning and response capabilities would be required.

Scrupulous management of Pantex Plant is crucial to the future of the Texas Panhandle, not only in postulated near term socioeconomic benefits, but also in fulfilling responsible stewardship of regional environmental resources. The decisions made in the Surplus Plutonium Disposition process must be made giving due consideration to the needs of the local citizens, the State of Texas as well as the Nation. Nurturing the existing positive relationship and further expanding the cooperative arrangements between the Department of Energy and the State of Texas to address these issues is in the best interest of all.

GENERAL SERVICES COMMISSION
ROGER MULDER
PAGE 37 OF 47

**Surplus Plutonium Disposition
Draft Environmental Impact Statement
Comments**

Texas Natural Resource Conservation Commission
Industrial & Hazardous Waste Division
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MD188

Surplus Plutonium Disposition Draft Environmental Impact Statement

United States Department of Energy Office of Fissile Materials
Disposition

July 1998

Texas Natural Resource Conservation Commission Comments

Plutonium disposition includes three (3) processes: pit conversion, immobilization, and MOX fuel fabrication. Four (4) candidate sites are considered for plutonium disposition in the EIS, including Hanford, INEEL, Pantex, and SRS. Pantex is the preferred site for pit conversion. SRS is the preferred site for immobilization and MOX fuel fabrication. The following comments are predicated on the assumption that immobilization and MOX fuel fabrication will indeed occur at a location other than Pantex, in accordance with the preferred alternatives outlined in Sections 1.6 and 2.4.2.1 of the EIS.

- | | | |
|----|--|----|
| 1. | The volume of hazardous wastes is not included in Table 2-4, <i>Summary of Impacts of Construction and Operation of Surplus Plutonium Disposition Facilities by Alternative and Site</i> . | 44 |
| 2. | A typographic error occurs on page 3-110; TWRCC should be TNRCC. Another typographic error occurs in Section 3.4.7.2.1, page 3-114; Texas Development Board should be the Texas Water Development Board. | 45 |
| 3. | Drinking water should be examined as a possible route of exposure for radiological impacts. | 46 |
| 4. | We concur with DOE's appraisal that the Pantex Plant Federal Facility Compliance Act Compliance Plan/Agreed Order (FFCA) will have to be modified to accommodate the new TRU and LLW mixed waste streams. The Hazardous Waste Permit will also have to be modified to accommodate the new hazardous waste streams. Please clarify whether wastes generated during decontamination of the disposition facilities will be considered new waste streams. We assume that DOE will provide a detailed list of waste components when the modifications are submitted to the TNRCC for approval. We recommend that DOE not commingle TRU and LLW wastes with their corresponding mixed waste streams. | 47 |
| 5. | The EIS states that the plutonium polishing process will either be attached to the plutonium conversion process or the MOX fuel fabrication process (Appendix N, page N-1). We prefer that DOE collocate the aqueous plutonium polishing process with the MOX fuel fabrication facilities. We understand that MOX fuel fabrication will occur at SRS, rather than at Pantex. | 48 |

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MD188-44

Waste Management

Table 2-4 was revised to include hazardous waste volumes for each of the alternatives.

MD188-45

General SPD EIS and NEPA Process

DOE acknowledges and appreciates the feedback on typographical errors in the SPD Draft EIS. The errors cited have been corrected.

MD188-46

Human Health Risk

If the proposed surplus plutonium disposition facilities were located at Pantex, a very small incremental annual dose to the surrounding public from normal operations would result via radiological emission deposition on agricultural products (i.e., food ingestion pathway). This dose (about 0.56 person-rem/yr) would be 0.0006 percent of the dose that would be incurred annually from natural background radiation. There would be no discernible contamination of aquatic biota (fish) or drinking water, either from the deposition of minute quantities of airborne contaminants into small water bodies or from potential wastewater releases. Therefore, it is estimated that no measurable component of the public dose would be attributable to liquid pathways.

MD188-47

Waste Management

Neither the SPD Draft EIS nor this SPD EIS states that the Pantex FFCA Agreement Compliance Plan/Agreed Order would have to be modified to accommodate new TRU waste and mixed LLW. Although wastes would be managed in accordance with applicable laws, regulations, agreements, DOE orders, and permits, it is premature at this time to determine whether the FFCA Agreement Compliance Plan/Agreed Order would have to be modified.

D&D is discussed in Section 4.31. DOE will evaluate options for D&D or reuse of the proposed facilities at the end of the surplus plutonium disposition program. At that time, DOE will perform engineering evaluations, environmental studies, and further NEPA review to assess the consequences of different courses of action, including projected waste generation quantities.

DOE continues to work hard to minimize the generation of mixed wastes, and therefore will segregate the LLW and TRU waste from LLW and mixed TRU waste generated by the proposed facilities when feasible.

MD188-48

Plutonium Polishing and Aqueous Processing

DOE acknowledges the commentor's support for collocating the plutonium-polishing facility with the MOX facility at SRS. 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 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.

6.	If would be helpful if the EIS consistently acknowledged that TRU waste also includes mixed (hazardous) TRU waste. The mixed TRU waste component is often referred to as a footnote (e.g., the tables in Chapter 4) or not acknowledged at all (e.g., Appendix N). In contrast, mixed LLW is consistently presented as a separate waste category.	49
7.	Please specify what wastes will be generated during pit bisection process (Section 2.4.1.2) and how DOE anticipates these wastes will be managed, e.g., recycled, treated and stored, etc.	50
8.	Shipping routes to Pantex and from Pantex to SRS should be incorporated into the EIS unless this is considered a security issue and random routes will be used.	51
9.	The risk characterization states that the Advanced Recovery and Integrated Extraction System (ARIES) facility will be licensed by the Department of Energy (DOE) and overseen by the Defense Nuclear Facilities Safety Board (DNFSB). Define what is meant by "overseen".	52
10.	Have considerations been made for ongoing radiologic public health surveillance and environmental assessments throughout the life of the project?	53
11.	On page J-23, volume II of the SPD draft EIS, a calculational assumption was made stating that "ground surfaces, at Pantex, were assumed to have no previous deposition of radionuclides". Since data from ongoing projects at Pantex indicate that there has been previous deposition of radionuclides (e.g. survey data from Firing Site 5 residing in the Radioactive Material Licensing Section), please explain how that assumption was made. Will this have any effect on the modeling results for exposures to members of the public?	54
12.	Page S-35 of the SPD EIS summary states that the number of latent cancer fatalities in the general population from Pantex site operations would be expected to increase from 5.5x10E-5 to 3x10E-3 if the proposed SPD facilities were located there. Clarify this large increase in the number of fatal cancers due to SPD facility operations.	55
13.	There is no indication that the non-radioactive or hazardous air quality impacts will be significantly different from the current operation at Pantex. Hazardous air pollutant emissions from pit disassembly and conversion process and/or from mixed oxide fabrication process will be minimal. Sources of potential air quality impacts will include emissions from fuel-burning construction equipment, soil disturbance by construction equipment and other vehicles, the operation of a concrete batch plant, trucks moving materials and wastes, and employee vehicles. According to the EIS, air quality impacts during construction would be mitigated by applying, as appropriate, standard dust control practices such as watering or sweeping of roads and watering of exposed areas. This will control the potential increase in the PM10 emissions due to construction activities.	56

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MD188-49

Waste Management

Appendix H was revised to clarify that TRU waste includes mixed TRU waste.

MD188-50

Waste Management

Information on waste generated by specific pit disassembly and conversion processes is summarized in Appendix H and is available in detail in the supporting data reports, such as the *Pit Disassembly and Conversion Facility, Environmental Impact Statement Data Report—Hanford* (LA-UR-97-2907, June 1998). These supporting reports state that LLW and TRU waste would be generated by the pit bisection process. These wastes would be managed along with the other LLW and TRU waste as described in the Waste Management sections of Chapter 4 of Volume I and Appendix H. Supporting reports are available in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

MD188-51

Transportation

The shipment of nuclear material (e.g., depleted uranium) using commercial carriers would be the subject of detailed transportation plans in which routes and specific processing locations would be discussed. These plans are coordinated with State, tribal, and local officials. The shipment of waste would be in accordance with the decisions reached on the *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste* (DOE/EIS-0200-F, May 1997) and the *WIPP Disposal Phase Final Supplemental EIS* (DOE/EIS-0026-S-2, September 1997). The transportation of special nuclear materials is the subject of detailed planning with DOE's Transportation Safeguards Division. The dates and times that specific transportation routes would be used for special nuclear materials are classified information; however, the number of shipments that would be required, by location, has been included in this SPD EIS. Additional details are provided in *Fissile Materials Disposition Program SST/SGT Transportation Estimation* (SAND98-8244, June 1998), which is available on the MD Web site at <http://www.doe-md.com>.

MD188-52

DOE Policy

In this SPD EIS, the ARIES facility is referred to as the pit conversion facility. It is not correct to state that the pit conversion facility would be licensed by DOE because DOE does not issue licenses. However, DOE would be responsible for the safe operation of this facility. Before the proposed facility could begin operations, a safety analysis report would have to be prepared and an operational readiness review would likely be conducted; this is similar to the NRC licensing process. DNFSB would then periodically review DOE operations and report to the U.S. Congress and the Secretary of Energy on the safety of these operations. In this way, DNFSB oversees DOE operations at nuclear facilities.

MD188-53

DOE Policy

Each year DOE prepares a separate environmental report for each site with significant environmental activities. Each report provides a comprehensive summary of the site's environmental program activities. The sites for which annual reports are prepared include all those evaluated in this SPD EIS. Included in each report are discussions of the site's radiological surveillance programs and the results of environmental assessments. These reports, which are distributed to relevant external regulatory agencies and other interested organizations or individuals, would continue to be prepared throughout the life of the surplus plutonium disposition program. In addition to these annual assessments, health effects studies would continue to be conducted to evaluate the health of the public in the vicinity of the sites, and of workers at the sites. These studies are discussed in Chapter 3 (Volume I) of this EIS and in Appendix M of the *Storage and Disposition PEIS*. It is anticipated that these health studies would also continue throughout the life of the program.

MD188-54

Human Health Risk

The calculations in this SPD EIS were performed to assess the doses from operating the proposed surplus plutonium disposition facilities. The presence on the ground of previously deposited radionuclides does not affect the doses specifically associated with operating the proposed facilities. Doses from existing ground contamination are included in the

13. Since no increase in the hazardous air pollutant emissions are expected from the pit disassembly and conversion process and/or from mixed oxide fuel fabrication activity, none of the alternatives proposed for Pantex in the surplus plutonium disposition EIS would create a significant change in the non-radioactive air quality at Pantex. TNRCC would revisit the proposed impacts of facility operations and emissions and conduct a detailed technical review should DOE submit a permit application for a plutonium disposition facility.
14. In general, the predicted non-radiological air emissions at Pantex, which are proposed in the PuFIS, are not expected to differ significantly from existing operations at the facility. However, there are several issues which need to be addressed in the Final PuFIS. The draft PuEIS provides predicted short-term (1-hour or 24-hour average) maximum concentrations for "Hazardous and Other Toxic Compounds." While concentrations are predicted to be less than the 1-hour Effects Screening Levels (ESLs), the predicted 24-hour concentration are estimated to exceed the 24-hour ESLs for benzene and hydrogen chloride. While these exceedances of short-term ESLs are not expected to result in adverse effects, information was not available regarding annual (long-term) predicted concentrations. While the short-term ESLs for benzene and hydrogen chloride were established to protect the general public from acute adverse effects, it is also necessary to evaluate the annual predicted impacts for these compounds. For compounds such as benzene, a known human carcinogen, it is important to evaluate predicted impacts with respect to long-term or annual exposures. For hydrogen chloride, the annual ESL was derived to prevent corrosion of protect. For compounds such as these and depending on the specific circumstances, the technical review may focus largely on long-term exposure.

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Pantex site doses reported in Section 3.4.4. The total doses from existing contamination and from operating the proposed facilities are reflected in the cumulative doses given in Section 4.32.

MD188-55

Human Health Risk

The increase in the number of LCFs from 10 years of operating the proposed surplus plutonium disposition facilities at Pantex is the difference in the two numbers cited by the commentor, i.e., 0.003 minus 0.000055, which equals about 0.00295. This amounts to an increase of about 1 chance in 340 of an LCF in the total population within 80 km (50 mi) from 10 years of operation.

MD188-56

Air Quality and Noise

For the purpose of this SPD EIS, toxic air pollutant concentrations were compared with the Texas effects screening levels which are based on short-term (1-hr) and long-term concentrations. The concentrations compared with the long-term effects screening levels in the SPD Draft EIS were 24-hr values. The concentrations compared with the long-term effects screening levels were changed to an annual average value, which is consistent with current TNRCC guidance. The exposure to benzene is analyzed in the Human Health Risk sections of Chapter 4 of Volume I for each of the hybrid alternatives (e.g., see Section 4.3.1.4). No emissions of hydrogen chloride to the atmosphere are expected from construction and operation of the pit conversion or MOX facility.

**Surplus Plutonium Disposition
Draft Environmental Impact Statement
Comments**

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MD188

Review of Surplus Plutonium Disposition Draft Environmental Impact Statement

My review focused on the site description and on alternative 9A.

1. Section 3.4.2.6 Nonhazardous Waste
Page 3-96, paragraph 3, lines 3-4, "A proposed upgrade to the sanitary wastewater treatment system would ensure that effluent limitations are met."

The DEIS should address whether the proposed upgrade will in fact take place, or the odds that it will not take place, the likelihood that effluent limitations will not be met if the upgrade does not take place or has a delayed schedule, and the impact on water quality if the proposed upgrade does not take place or has a delayed schedule. Table on page 4-219 implies that discharge will increase by about 10 percent; is this correct? Is the upgrade for ensuring compliance with existing discharge or with the 10 percent increase in discharge? Why is the upgrade needed if the wastewater treatment plant is only operating at 35 to 50 percent of capacity, and only expects an increase of 5 percent (page 4-221)?

The text should identify the number and frequency of occurrences when the discharge permits are exceeded under the present operations.

The pathway for contaminant migration through Playa 1 to the perched ground water has in the past been a critical one for ground water contamination at the site so the DEIS needs to thoroughly address implications such as the one raised in the preceding comment.

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2. Section 3.4.6.1 General Site Description
Page 3-108, paragraph 3, lines 1-2, "The Ogallala Formation of Tertiary age consists of fluvial sands and gravels as well as eolian sands and silts."

The designation of the Ogallala as fluvial and eolian is a little simple and overlooks extensive geologic studies done in support of Pantex Plant operations (e.g., Gustavson, T. C., 1996, Bureau of Economic Geology Report of Investigations No. 239). Gustavson (1996) stated that the Ogallala includes basal fluvial facies and that paleovalley-fill facies of heterogeneous gravel and sand channel deposits and sand and clay overbank deposits are interbedded with eolian sediments.

58
3. Section 3.4.6.1 General Site Description
Page 3-110, paragraph 1 on playa hydrology
Text on lines 2-3 overlook the fact that the playas can be dry because infiltration rate exceeds water inflow rate and thus perpetuates the myth that playa basins are evaporation ponds.

59
4. Section 3.4.6.1 General Site Description
Page 3-110, paragraph 2 on Playa 1 water inflow
Text states inflow of 946,000 L/day, which is equivalent to ~345,000 cubic meters per year (CMY). This is only 72 percent of the 473,000 CMY cited in table 3-28 as generation rate of nonhazardous liquid waste. What is the difference between these numbers? Is 128,000 CMY of liquid waste discharge elsewhere than Playa 1 (Text on page 3-96, paragraph 3, states sewage and industrial wastewater are discharged only to Playa 1)?

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MD188-57

Waste Management

The Pantex Wastewater Treatment Facility upgrades described in Chapter 3 of Volume I would occur regardless of the proposed discharges from the proposed surplus plutonium disposition facilities. These upgrades are needed due to the age of the facilities, changing regulations, and problems with compliance, and are not related to the capacity of the facility. An EA, *Final Environmental Assessment for Wastewater Treatment Capability Upgrade*, Project No. 96-D-122 (DOE/EA-1190, April 1999), for the treatment plant upgrade was completed in April 1999. If necessary, wastewaters would undergo treatment within the proposed facilities to meet influent requirements of the Wastewater Treatment Facility. Section 3.4.2.6 was revised to update the status of the treatment facility upgrade. As described in the EA, the upgraded and expanded facility would no longer discharge effluent to Playa 1. Instead, effluents would be stored and used to irrigate crops grown on the site in cooperation with the Texas Tech University Research Farm. The waste management impacts table in Section 4.17.2.2 indicates that the 51,000 m³/yr (66,708 yd³/yr) of liquid nonhazardous waste generation would be 5 percent of the existing capacity of the Wastewater Treatment Facility. This additional wastewater would increase the 473,125 m³/yr (618,848 yd³/yr) of current discharges to the Wastewater Treatment Facility by approximately 11 percent. Section 3.4.7.1.1 describes the December 2, 1997, Administrative Order issued by EPA regarding the Pantex Plant NPDES Permit. This section notes that a comprehensive corrective action plan was developed. Corrective actions include upgrade of the Wastewater Treatment Facility, soil stabilization and erosion control, and operational, maintenance, and monitoring program modification. The engineering solutions are scheduled for completion in 2003.

MD188-58

Geology and Soils

Section 3.4.6.1 was revised to include the description provided.

MD188-59

Geology and Soils

Section 3.4.7.1.1 was revised to incorporate the concept that playas may become dry because the infiltration rate can exceed the water inflow rate.

MD188-60

Waste Management

The rate that wastewater enters the Wastewater Treatment Facility is different from the rate at which treated water is discharged from the facility due to evaporative losses, losses through the liner of the lagoon, and water that is retained in the moist sludge from the treatment plant.

The remainder of this comment is addressed in response MD188-57.

Text on page 4-221 states that the wastewater treatment plant capacity is 2.6 million L/day. Is that correct? Given the number of 0.9 million L/day (page 3-110) for inflow to Playa 1, and assumption that all Playa 1 inflow is from the treatment plant, then the plant presently must be operating at ~35 percent of capacity. Is this correct? Or is the treatment plant operating at 50 percent capacity (using table 3-28 number on generation rate instead of Playa 1 inflow rate)?

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5. Section 3.4.6.1 General Site Description
Page 3-113, paragraph 5 "depth to the Ogallala groundwater aquifer varies from.....
This flow direction....."

This section is poorly written and should be rewritten to demonstrate that the DOE understands groundwater hydrology at the site. First, the word 'aquifer' in Ogallala groundwater aquifer is redundant and confusing; is the reference to the water table or to formation structure. Second, the 'flow direction' is not stated; the word 'this' starting the next sentence has no antecedent. Third, the apparent comparison of the water table dip to the 'regional northwest-to-southeast trend (?) of the remaining portion of the Southern High Plains' does not make sense.

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6. Section 3.4.6.1 General Site Description
Page 3-113, paragraph 6 "extent, thickness, and hydraulic characteristics of (the Dockum Group) have not been established"
Statement is vague or inaccurate. For a regional study that includes the Pantex Plant and a list of older references refer to Dutton, A. R., and Simpkins, W. W., 1986, Hydrogeochemistry and Water Resources of the Triassic Lower Dockum Group in the Texas Panhandle and Eastern New Mexico, Bureau of Economic Geology Report of Investigations No. 161.

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7. Section 4.17.2.2 Waste Management
Page 4-219, paragraph 4, Nonhazardous liquid waste generation is expected to increase by 5 percent of treatment plant capacity
See comments no. 1 and no. 4 above.

Whether a 5 percent increase in wastewater generation has an impact on groundwater or surface water quality has not been addressed. See comment no. 1 above regarding the need for analysis of past experience in meeting or violating liquid waste discharge permits. Should one assume that the rate of violation will increase by 5 percent? Would that have a major impact? Is the issue here the impact on the treatment system or on surface water and ground water quality? What impact would a 5 percent increase in wastewater generation have on water quality in Playa 1 and in ground water? Would that be a minor impact or a major impact? Is a minor impact on the treatment system or water quality acceptable?

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Regardless of whether this is addressed in the Storage and Disposition Final PEIS (DOE 1996a), this needs to be addressed here.

8. Section 4.17.2.2 Waste Management
Page 4-324, paragraph 1, lines 3-5
It is not acceptable to refer to the Storage and Disposition Final PEIS (DOE 1996a:3-498) with the statement that wastewater discharge would have no impact. This finding needs to be argued here. A similar comment on an unrelated matter was raised at public hearing in Amarillo August 11 by a member of the public.

MD188

MD188-61

Waste Management

As discussed in Section 3.4.2, the capacity of the Wastewater Treatment Facility is approximately 946,250 m³/yr (1,237,700 yd³/yr), with current wastewater discharges to the facility of approximately 473,125 m³/yr (618,848 yd³/yr). Therefore, current use is approximately 50 percent of capacity.

MD188-62

Water Resources

Section 3.4.7.2.1 was revised to incorporate corrections based on the commentor's observations.

MD188-63

Water Resources

Information on the Triassic Dockum Group found in Section 3.4.7.2.1 was taken from the information on Pantex provided in *Environmental Information Document: The Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Components EIS* (ES-96:0156, September 1996). The particular reference in this SPD EIS to the Triassic Dockum Group underlying the Ogallala aquifer was taken from *Hydrogeology and Hydrochemistry of the Ogallala Aquifer, Southern High Plains, Texas Panhandle and Eastern New Mexico* (Texas Bureau of Economic Geology Report of Investigation No. 177, 1988) and *Natural Phenomena Hazards Assessment for the Pantex Plant, Amarillo, Texas* (Jacobs Engineering Group, Contract 05-G010-S-91-0211, Task 35, October 1993). However, the referenced report given by the commentor was reviewed, and Section 3.4.7.2.1 was revised.

MD188-64

Waste Management

The Waste Management sections of Chapter 4 of Volume I describe impacts to the waste management infrastructure. Impacts on water resources (including surface water and groundwater) are discussed in the Water Resources portions of Section 4.26.

Section 3.4.7.1 was revised to reflect the status of the Pantex sanitary Wastewater Treatment Facility upgrade. As described in that section, beginning in 2003, the Wastewater Treatment Facility will no longer discharge effluents to Playa 1. Effluents will be used to irrigate crops grown

9. Section 4.17.2.2 Waste Management
Page 4-324, paragraph 3
28 million L/yr of additional groundwater withdrawal is 4.5 percent of 1995 production rate (617 million L/yr [page 3-113]). Where does the number on 23 percent of groundwater capacity come from?
- It is not acceptable to refer to the Storage and Disposition Final PEIS (DOE 1996a:4-686 to 4-687) with the statement that groundwater demand would have no impact. This finding needs to be argued here. Groundwater levels are declining because withdrawal exceeds recharge. Does the DOE assume that the Panhandle Groundwater Conservation District No. 3 will allow Pantex to exceed 1995 production rates? Is this assumption valid or founded on discussion with the District? The same comment applies to the statement on impact from operations in section 4.26.3.2.2.
10. Section 4.32.3.3 Waste Management
Page 4-401, Table 4-280
Table gives 15 yr production of 554,900 cubic meters of liquid nonhazardous waste. This averages ~37,000 CMY. Table 4-157 gave a number of 50,000 CMY for operations liquid waste generation. How has the savings of 13,000 CMY or 195,000 cubic meters during 15 years been achieved? If Table 4-280 understates waste generation rate by 35 percent, what impact does that have on the findings?

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MD188

on the site in cooperation with the Texas Tech University Research Farm. Therefore, beginning in 2003, effluents from Pantex facilities will no longer impact the surface waters of Playa 1.

The remainder of this comment is addressed in response MD188-57.

MD188-65

Infrastructure

Note that page 4-324 of the SPD Draft EIS is part of Section 4.26.3.2.1, Water Resources, and not part of Section 4.17.2.2, Waste Management. This SPD EIS references the *Storage and Disposition PEIS* for impacts on groundwater quality, but does not rely on that EIS for impacts on groundwater capacity. The percentage cited in this SPD EIS is calculated from the addition of the construction-related water demand plus current usage divided by the site groundwater supply production capacity. Both the current usage and site capacity figures are cited in Table 3-36. Section 3.4.7.2.1 was revised for clarity and updated; it now better describes the relationship between the Panhandle Groundwater District 3 and groundwater use at Pantex.

MD188-66

Waste Management

Section 4.32.3.3 describes waste generated during both construction and operations. The total presented in the Cumulative Impacts section cannot simply be divided by 15 to determine the annual waste generation rate for each alternative. During construction of the pit conversion and MOX facilities at Pantex, 25,000 m³ (32,700 yd³) of liquid nonhazardous waste would be generated annually, for a total of 75,000 m³ (98,100 yd³) over the 3-year construction period. During operation of the pit conversion and MOX facilities at Pantex, 51,000 m³ (66,708 yd³) of liquid nonhazardous waste would be generated annually, for a total of 510,000 m³ (667,080 yd³) over the 10-year operating period. Thus, if both the pit conversion and MOX facilities were at Pantex, a revised maximum total of about 590,000 m³ (771,720 yd³) over the combined construction and operating period would be expected.